

Introducing Librix in Turkey



Msc Business Administration

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Introducing Librix in Turkey

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The goal of this report was to determine if and to what extent a library solution named Librix, is interesting for the Turkish library market. This interesting subject was found during the intake period in collaboration with Mr. Lieuwe Roosenschoon of Nedap and Dr. Ir. J. Kraaijenbrink. I want to thank them hereby for helping and steering this research in the right direction at the startup phase. The feedback I received during my whole thesis period from Dr. Ir. J. Kraaijenbrink and Dr. E. Constantinides really helped me a lot in completing and lifting this report to a higher level, my sincere thanks to them both. Mr. Umit Ozturk and Mrs. Senem Arikan helped me selecting the potential customers and translating the interviews to Turkish, without them this research would not be a success, a special thanks to them also.

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Management Summary

Background

The importance of creating customer value propositions, when an organization enters a new market is stressed by the literature concerning this topic. There is an agreement among the authors on two critical dimensions of knowledge for organizations to create competitive advantage through customer value propositions: customers knowledge and industry knowledge (Woodruff, 1997: Anderson et al, 2006). Lead by this theory a practical case of Librix was put to a test. Librix is a complete library management system which is developed by Nedap N.V. and is very successful in the Dutch market. This success is recognized by Arsis Grup, a Turkish security company that decided to offer Librix in the Turkish library market. Connecting theory with practice in this case, gave an answer to the following research question in this report: *“To what extent is the customer value proposition of Nedap in the Netherlands applicable for the Turkish market?”*

Methodology

The methods used to obtain information concerning customer value proposition were selected to collect customers and industry knowledge. The first step in the data collection phase started at Nedap and current customers of Librix in the Netherlands, where qualitative interviews were held. Hereafter an intake interview at Arsis and desk research was conducted with the aim of collecting global information to feed the Five Forces Model (FFM) of Porter (2008) and the DESTEP model (Kotler, 2009). These models were the base of obtaining the industry knowledge in order gain competitive advantage through value propositions. The next and final step in the data collection phase was to obtain customers knowledge at the potential customers in Turkey, this was also realized by qualitative interviews. This gathered knowledge then needed to be translated to concrete results usable results for Arsis, which was realized by making use of the marketing mix (Borden, 1964). The four p's of the marketing mix gave information concerning the price, promotion, place and product of Librix in Turkey and the adaptations that must be made within these dimensions in order to fit the Turkish market.

Results

There are lot of solutions present in the Turkish library management systems market. The switching costs for customers are relatively high, which make it more difficult for suppliers to get a foothold in this market. There is also a lot of resistance from potential customers if a product is brought on the Turkish market without having references (current users of the product within Turkey) or business connections (external firms which support the offered product). The macro environmental analyses revealed a lot of opportunities in Turkey, most caused by the economic development of the country. With the economic development also socio-cultural changes are occurring in the country. These changes could make Turkey an interesting country from the foreign direct investment point of view. However the qualitative interviews revealed several key determinants for Arsis to succeed with Librix in Turkey. The most important findings also reflected by the micro and macro environmental analyses. These key determinants for organizations to succeed with their offering in Turkey are: the price of an offering, after sales service level and the presence of references. Furthermore Turkey as an emerging economy is

lagging behind in general knowledge, which is reflected by the knowledge of potential customers concerning the technology Librix uses. The potential customers do not recognize the added value which Librix can bring to their organization. The tightness of the potential customers is reflected by the ANKOS organizations, which is an organization in which all the bigger public libraries and university libraries collaborate with the goal of bringing knowledge and science databases within the Turkish libraries together. Several annual meetings are arranged in which debates such as the HF/UHF issue and the possible library management system solutions are discussed. The agreement among interviewees concerning the added value of Librix, also reflects the tightness of the potential customers.

Conclusions and recommendations

The Library management system market in Turkey could be typed as saturated as it is right now. The focus on the complete product such as Librix is stressed too much by Arsis, the findings demonstrate that the Turkish potential customers are more interested in products that are offered in modules. Importing products to Turkey such as Librix could pose a problem with regards to the price, because this is the most important attribute in getting customers interested. This is because the prices of foreign products are sold in foreign currencies, which are negatively correlated to the currency used in Turkey: the Turkish Lira. The whole promotional concept of product efficiency is not applicable in Turkey. In order to be successful Arsis must first of all consider educating the potential customers to take away some of the resistance against new library management systems, and obtain references, which are libraries that already use the product within Turkey which will support the product.

The development of Turkey as a country could provide a lot of opportunities in the future, but for now it seems that Arsis should focus on demonstrating the added value of Librix compared to traditional systems. The whole concept of customer value propositions, which is used in the Netherlands is not applicable in the Turkish market. Arsis could increase the probability of succeeding with Librix in Turkey by taking away the resistance and slowly introducing the product. Following the recommendations as stated below in this specific order, could help Arsis in successfully introducing Librix in the Turkish market.

- Hiring a student which represents the RFID technology in general and elaborates/promotes the technology Librix uses by visiting potential customers.
- Elaborating and focusing on the modularity of Librix instead of promoting it as a complete solution.
- Using the ANKOS meeting to generate publicity and convincing the potential customers of the technology used by Librix.
- Obtaining references by offering Librix to a limited amount of potential customers for a special price.
- Selling Librix with personal sales after the resistance is weakened and references are obtained as specified above.

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1. Introduction

This first chapter has the goal to describe/define the problem statement and to have a clear focus on why this research was executed. The research questions which are the core of this research are mentioned and the global research strategy, which reflects the path this research followed to solve the research problem is described.

1.1 Background

Globalization is becoming a more and more popular research theme due to the developments and opportunities in emerging economies. These so-called emerging economies are rapidly growing, industrializing and volatile economies, which are growing towards the standards of developed countries in Europe and the United States. The high economic growth rate and the high return of investment in these countries make it worth for an organization to consider diverse forms of investment there (Hoskisson et al, 2000). Research concerning the market dissimilarities of countries is more important than ever for businesses eager to export or establish a presence in foreign markets. Consider the fact that Volkswagen (German car manufacturer) produces an ultra-economical car, which is successful in Europe and wants to focus on the North American market. It is very likely that this car will not be a success in this (North American) part of the world due to completely different market circumstances and customer wishes.

Nedap is one of many organizations that recognize the importance of globalization. It develops and supplies security, automation and management information solutions to organizations (<http://nedap.com>). One of these solutions, which uses the Radio Frequency Identification (RFID) technology, is developed for universities and libraries. This solution is called Librix and is anticipating on the shift from normal barcode scanners to RFID solutions for the book processing in the library market.

The success of Librix in The Netherlands and other European states did not go unnoticed. Arsis Grup (Arsis), a similar company to Nedap which also offers security and management information systems decided to offer Librix in Turkey last year. Nedap recognized the importance of local knowledge in the Turkish market and Arsis acknowledged the value that Librix can create within libraries. This way collaboration between the companies started in order to introduce Librix into the Turkish library market.

Literature suggests several attributes which need to be considered when a product is introduced in a new focus market. Woodruff (1997) & Anderson et al (2006) found that most organizations tend to focus on internal factors in order to succeed. Most failures of product introductions within markets have to do with organizations which are relying too much on the product itself without taking external influences into consideration (Anderson et al, 2006).

The recognition of external influences in gaining competitive advantage is essential (Eggert & Ulaga, 2002; Anderson et al, 2006). There is a lot of discussion regarding which external factors should be considered. Based on the research findings concerning customer value proposition, researchers (Woodruff, 1997; Anderson et al, 2006) seem to agree on the demand to learn about the focus market and its customers. These subjects must be considered for every time an organization enters a new market and consist of gathering data about the focus market and customers. Some authors go deeper than that by identifying key drivers for customers perceived value (LaPierre, 2000), in order to gain competitive advantage.

1.2 Objective

The research topic of customer value proposition in Turkey was unknown for Arsis. Woodruff (1997) and most other researchers (Anderson & Narus, 1998; Anderson et al, 2006), state that market knowledge and customer knowledge are the essential factors of customer value proposition. The two factors mentioned before could contain numerous attributes (LaPierre, 2000), which have significant influence in the degree of success for Librix in Turkey. The goal of the value propositions is to identify the most important market and customers wishes and to translate these findings into tangible results for Arsis. The product Librix is new in Turkey, therefore this research could help in gaining insight to what degree the current product Librix as a whole (product itself, price of Librix, promotion and place/distribution channels) is applicable in Turkey and what modifications are needed to be successful.

1.3 Research Problem

The definition of the objective as stated above defined the demand for gaining market and customer insight in the Turkish market. This lead to the following research problem which drove this research in the direction of realizing the objective:

“To what extent is the customer value proposition of Nedap in the Netherlands applicable for the Turkish market?”

As described at the research objective and reflected by the research problem, the primary goal of this research was to come up with customer value propositions for Librix in Turkey and to gain competitive advantage this way (Woodruff, 1997). The research questions guided the research in the right direction, in which finally the research problem was answered. These research questions were based on the information needed according to the value proposition literature to answer the research problem.

The required data which the value propositions authors (Woodruff, 1997; Anderson & Narus, 1998) mention are customers data and market data (Anderson et al, 2006). Customer information reflects the need for the knowledge about your current/lost and potential customers concerning your product and their wishes. The market information can be specified by splitting it into two categories; the competitive landscape of the product offered and the external influences. The following research questions are based on this knowledge:

1. How does the competitive landscape of Nedap Librix look like in Turkey?
2. What relevant external influences should be considered for Librix in Turkey?

The relevance of these first two questions to the research problem is that answering these two questions provides information concerning the market data required to realize competitive advantage through value propositions (Woodruff, 1997; Anderson et al, 2006). The other attribute important in gaining competitive advantage through value propositions is the customer's data knowledge. The third research question is formulated to keep a focus on the customer's data side in creating competitive advantage through value propositions.

3. What are the most important characteristics of the potential customers?

The results of the three research questions above concerning the competitive landscape, external influences and customer characteristics are essential in creating value propositions according to Woodruff (1997) and Anderson et al (2006). In order to make all this information tangible these findings must be translated to marketing strategy adaptation. The marketing strategy used for Librix by Nedap in the Netherlands, is primarily based on the efficiency improvements which Librix can realize within libraries without considering the specific setting of the Turkish market, customer's wishes and external influences. Therefore, the following research question is formulated in order to fit the purpose of translating and making the findings of the previous research questions concrete and usable for Arsis, so that the company knows on which aspects the product in marketing terms need to be adapted to fit the market:

4. What marketing strategy adaptations should Arsis consider to successfully offer Librix in Turkey?

The results of the research questions together formed the basis to come up with an answer on the research problem. The relation of each of the research questions to the research problem was that the research questions are the solution to the problem in logical steps. The problem of this report was to what extent the current value propositions used in the Netherlands were applicable in Turkey. The first step of identifying what customer's value is defined by two critical attributes (Woodruff, 1997; Anderson et al, 2006). The first three research questions, therefore, had the aim on identifying important customer- and market data. The fourth question made these findings concrete, by translating them to marketing strategy adaptations. By doing this a clear vision on the research problem was obtained, which gave answer to what extent the current value propositions were applicable in Turkey.

1.4 Research strategy

There are different types of research types mentioned by Shadish, Cook and Campbell (2002). This research followed a deductive approach, where the literature review elaborated on the defined research problem, which is also reflected in figure 2. The different methods and models were selected by doing desk research and elaborating on the literature review.

The first initial step of this research was to collect global information concerning the product Librix by doing desk research in the Netherlands and holding an intake interview at Nedap. The current Dutch customers were furthermore approached to contribute to the knowledge of customers data concerning what they value about Librix in the Dutch market. This was done to collect background information and to be able to have a clear vision regarding the product, before moving this research to Turkey. The next step of this research was to collect global information at Arsis in Turkey by doing several intake interviews. These interviews had the goal of collecting global information concerning the Turkish market and to have the vision of Arsis clear concerning Librix in Turkey. The next phase of this research consisted of elaborating on these findings by doing desk research in Turkey. Furthermore potential customers were approached in order to collect information concerning their thought about Library management systems (LMS) in general and Librix. All this information than was converted to concrete results which were usable by Arsis and finally gave answer to the research problem.

2. Conceptual framework

Several methods are mentioned in the previous chapter in the form of research questions which guided this research in the right direction. This chapter elaborates on these formulated questions, by specifying and explaining the chosen model(s) in this research to answer these questions and the research problem. Furthermore relevant theories concerning product introduction and creating competitive advantage are discussed. Finally the conceptual method is described so that the reader understands how and by which models & theory the final recommendations at the end of this report were formulated.

2.1 Customer value proposition

Woodruff (1997) discusses the importance of external factors in the role of gaining competitive advantage. Two of these external factors are widely accepted because all researchers seem to agree on the need to learn about the focus market and their customers (Anderson et al, 2006; Woodruff, 1997). Customer value is a perception and can differ per customer and there commonly is a big gap between what managers think customers value and what customer really value. Woodruff (1997) mentions trial & error and research methods (experiments, surveys, interviews and qualitative research) as the best way in narrowing this gap. But this only covers the customers side, where focus market data is equally important (Woodruff,1997). The switch from customer satisfaction measurement (CSM) where suppliers only focus on the customers side, to customer value development (CVD) is a must. The data required to formulate a good customer value proposition is shown in the figure below:

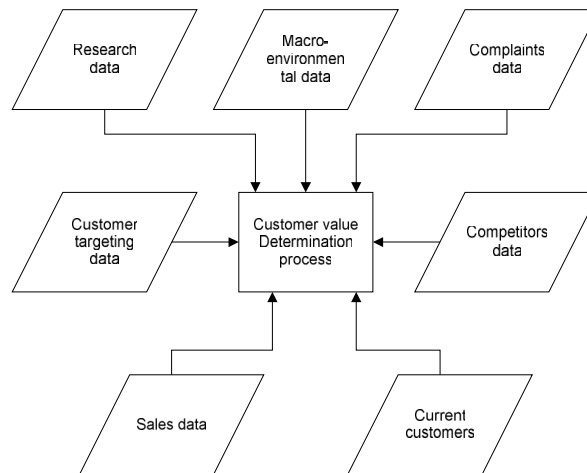


Figure 1. Required data for customer value propositions (Woodruff, 1997)

As the figure above demonstrates all the mentioned factors are external (customer and market data). These data are the most important data in gaining competitive advantage according to Woodruff (1997). Anderson & Narus (1998) build upon this information and mention Field Value Models (FVM) as the proper model to gather data about their customers. These FVM rely on value assessment, which consists of first hand information which suppliers gather at customers by direct contact (Anderson & Narus,

1998). In summary; the principal of FVM compared to previous CVD is specifying and pointing out the importance of customer/market data in creating competitive advantage.

There are three different types of value propositions; all benefits, favorable points of difference and resonating focus (Anderson, Narus & van Rossum, 2006). The all benefits propositions consist of listing all the benefits of an offering, which requires the least knowledge of the market, competitors and consumers. The second proposition type focuses on why customers should choose for a specific offering instead of others. The last point resonating focus implies that a supplier should focus and stress the elements of an offering which are exclusive and matter the most to customers (Anderson, Narus & van Rossum, 2006).

The potential pitfall of the first proposition is benefit assertion, which means that a supplier can claim benefits which are of no value for customers. The pitfall of the second type is called value presumption, which means that a supplier assumes a favorable point of difference is of value for a customer while it has no value. The pitfall of the last proposition is that it requires customer value research, but it is also the most complete type of proposition. The organizations that follow this kind of proposition are most likely the ones that can create competitive advantage based on the knowledge they obtain. It is very important to demonstrate what added value the offering had in the past by having referent customers ready, this is called value case history (Anderson, Narus & van Rossum, 2006). Therefore the last type of proposition is used in this research where all types of customers are involved for a complete view on the matter.

2.2 Customers knowledge and the industry

The researchers mentioned in the previous paragraphs concerning customer value propositions; Woodruff (1997), Anderson & Narus (1998) agree on the fact that customer knowledge is very important. Organizations should focus on current, potential and lost customers in the market. All these customers can have their own perception on what they value (Anderson & Narus, 1998; Eggert & Ulaga, 2002), so the different perceptions of different type of customers are important. There are no current and lost customers for the Librix in the Turkish market because the offering is new. Therefore most of this research focuses on the potential customers in Turkey. However a number a number of customers in the Netherlands have also been approached, to identify differences and to have a complete view on the customers knowledge. The results of these findings at customers were used to answer the third research question stated in the first chapter. Saunders et al (2007) mention different types of methods to obtain customers knowledge. The most appropriate method fitting this research were the semi-structured interviews, in which most of the themes to cover were determined.

The second factor mentioned by Woodruff (1997) to come up customer value propositions is the market data. In order to come up with good value propositions it is necessary to analyze the targeted market (Eggert & Ulaga, 2002). Literature on describing a certain market/industry offers several models to do this. It is important in this research to fully describe the industry to come up with valuable information and translate this to usable results (Anderson, Narus & van Rossum, 2006). The most appropriate and

commonly used model to do this is the Five Forces Model (FFM) of Porter (1980), because of its outside in approach. The model is very suitable in cases where external information needs to be translated to internal influences for organizations (Porter, 1980).

The FFM gives a good global view in how attractive an industry is and has revealed reveal important information regarding the focus market. Besides the FFM can give input for the DESTEP analyses, which stands for Demographic, Economic, Social-cultural, Technological, Ecological and Political influences(all external influences) which could have an impact on introducing a product in a different setting. This model will be discussed later in this report.

The model uses the following five forces; New entrants, power of suppliers, power of buyers, threats of new entrants and rivalry among existing customers (Porter, 2008). The table below summarizes the most important attributes of each force:

Force	Attributes
New entrants	Switching costs, demand/supply side economies of scale, Capital requirement, incumbent advantages, unequal access to channels and relevant government policies.
Power of suppliers	Differentiation of products, high switching costs, substitutes, product dependence and forward integration.
Power of buyers	Amount of buyers, standardized products and switching costs
Threats of new entrants	Similar price/performance tradeoffs and switching costs
Rivalry among existing customers	Competitors size, industry growth, exit barriers, commitment of rivals, product similarities, competitors familiarity one another and product life cycle.

Table 1. The five competitive forces that shape strategy (Porter, M.E, 2008).

A full macro-environmental analyses in this research was irrelevant because not all of the DESTEP dimensions were relevant for this research due to its specific nature. This is because the net effect of external influences such as ecological, technological and political aspect are hard to point out for this specific setting in which the DESTEP influences on the library market is analyzed. However the DESTEP method was used to guide and point out the influences that played a role in the introduction of Librix in the Turkish focus market. Porter (2008), for example, mentions that government policies could play a significant role in the industry analyses which is also mentioned by Borden (1984). Specific relevant policies therefore were named in the DESTEP, if they could have a significant impact on the product introduction of Librix.

Figure 1 in the first paragraph of this chapter reflects the required information in order to come up with value propositions according to Woodruff (1997). The models mentioned in this paragraph (FFM & DESTEP) were used to gather this information to answer the first two research questions as stated in the first chapter of this report. The FFM described the competitive landscape and the DESTEP was used to determine which relevant external influences there are. This way a systematic way to work and to approach the two research questions was used. With all the information gathered it still has to be converted to usable data to fill in the customer value proposition. The next paragraph describes the framework this study used to come to tangible results.

2.3 Modularity of the product

The intention of including this theory was to lay a basis for the marketing mix and the fourth research question of the first chapter. Anand & Daft (2007) demonstrate the benefits that a modular product can have in their research (table 2) and reflect the demand for customer knowledge, which is also in line with the customer value proposition literature discussed in the first chapter. By recognizing the modularity of Librix, Arsis can introduce Librix in Turkey by (re)combining/ (re)designing the product to fit the specific wishes of the Turkish focus market. The findings during the customers interviews confirmed the theory in this paragraph. The modularity of the product is very important for the Turkish market and specific findings concerning this theory are mentioned in chapter four of this report.

Nedap offers Librix as a complete solution for libraries and universities where most of the work will be carried out by automatic systems, while this leads to a more efficient way of working. The product Librix can and will be adjusted if any modifications are needed or wanted by a specific customers group to fit that certain group. Anand & Daft (2007) mention three types of organizations, which reflect the demand for knowledge about specific product customizations. These organization types are; Hollow organization, Modular and Virtual organization. The Modular organization type which is represented in the figure below applies to the situation of Librix.

Modular organization	
Design principles	<ul style="list-style-type: none"> • Break up products into modules • Design interfaces in which different modules work • Outsource product chunks • Focus on assembling the modules
Advantages	Efficiency, speed of response, innovative ability recombining modules
Disadvantages	Not all products can be separated, costly rework possible,
When to use	When it is possible to break up products in modules

Table 2. The modular organization (Anand & Daft, 2007)

The advantages summed up in the table above and the “when to use” reflect the demand for Arsis to gain knowledge about their customers (Woodruff, 1997) and their preferences concerning Librix. Librix is a product that fits the design principles summed in the table above because the product is broken into modules.

2.4 Innovating and keeping ahead of competitors

There are incumbent suppliers of RFID solutions in the Turkish focus market. Obtaining a specific market domain is one issue, where the issue of sustaining those customers is another. Until this point, this report only mentioned marketing technical issues, where customer value propositions (Woodruff, 1997) is the leading subject. The theory of the previous paragraph concerning the modularity of Librix demonstrated that this modularity provides advantages for Librix in Turkey compared to possible incumbents. Keeping ahead of these incumbent by innovation is another way to make a difference.

Tidd (2001) recognizes two types of innovation in his research: product and process innovation. Two organizational factors affect the ability of a firm to respond to these 2 contingencies of innovation. These are **the internal organization** of a firm (functional links, definition of business divisions/processes) and **external linkages** (suppliers, customers and collaborating organizations).

The external linkages are primarily usable in the situation of Librix, where information concerning the customers and collaborating organizations is considered. It is necessary for Arsis to obtain information concerning the decision making, primary processes and collaborating organizations of their potential customers in order to innovate and keep in front of competitors according to Tidd (2001).

Librix could be adjusted to the specific wishes of that focus market, also due to the modularity (Anand & Daft, 2007) of the product mentioned in the previous paragraph. The environmental uncertainty and complexity which have an influence on the degree, type, organization and management of innovation, will be determined according to the competitive (FFM) and external influences (DESTEP analyses) discussed earlier in this chapter. All this newly gained information based on the decision making, primary processes and collaborating organizations can be used to innovate Librix in such a way that it fits the focus market.

The research of Tidd (2001) is related to the second, third and fourth research question mentioned in the first chapter. As described above, Tidd (2001) demonstrates the importance of external influences and customers data, which is also mentioned by value proposition literature. The importance of innovation and the related factors play a role in the innovative process of Librix, which ultimately had an influence on the marketing mix because of the potential differences found. The importance of innovation in this research is reflected by this theory in combination with the value proposition topics. Nedap Librix positions itself as a flexible and innovative solution for the primary processes of libraries and universities. Therefore, the topic of innovation was considered in filling in the marketing mix according to customer data findings. Furthermore Tidd (2001) recognizes the importance of internal linkages, which are not emphasized by the value proposition literature (Woodruff, 1997). Creating competitive advantage by the value proposition literature is one thing, but elaborating on this and keeping in front of the customers in terms of innovation make the named internal linkages by Tidd (2001) important. Therefore also this part of Tidd's (2001) theory is elaborated on in this report and the importance of this for future researchers is named in the final chapter of this report.

2.5 Product exporting and value propositions

The situation of Librix in this specific setting is not that of introducing a whole new product in a new market, rather it is the case of exporting a successful product into a new emerging market. Cavusgil & Kirpani (1993) recognize the importance of using foreign distribution channels in order to succeed with offerings in foreign markets. This reflects the situation of Librix, where Nedap uses Arsis to enter the Turkish market. Cavusgil et al (2002) elaborate on this finding and comes up with a model for the right method of marketing in emerging economies. This model consists of six steps in which an organization firstly (1) scans for opportunities, (2) create interest, (3) compete with their product, (4) Sell the product, (5) implements the product and (6) carries out after sales services. The whole process is actually in line with this research executed, where the first step was carried out by Arsis in order to identify opportunities in Turkey. This research with the value proposition literature as a core, is the second step described in the model above. This second step consists of collecting information valued by the customers and presenting the added value a solution could realize within their organization (Cavusgil et al, 2002). The value proposition literature emphasizes on this and it seems that the theory concerning value propositions can be used to create interest and compete with their offering by concentrating on what potential customers value. This report has the goal to check whether Librix as a LMS solution fits the targeted market and what adaptations concerning the marketing strategy could be helpful in order to succeed with Librix in Turkey.

2.6 Market segmentation, targeting and strategic positioning

It is important to decide to what type of customers the marketing strategy of a company is directed to in order to specifically make use of the marketing mix. In marketing literature this phenomenon is referred to as market targeting, in which customers are segmented according to the following attributes; proposition flexibility, market demands and important organizational considerations (McDonald & Dunbar, 2004). The proposition in this case Librix is a very flexible product in a specific market. The offering can be adapted to the wishes of customers while the libraries in Turkey should be considered as potential customers. The most important attribute from the segmentation perspective for this research are the organizational considerations.

The potential market for Librix theoretically consists of all the libraries that are present in Turkey because an LMS solution is applicable and brings advantages in every library. However research at the Dutch customers demonstrated that the key selling point in the Dutch market is based on efficiency, which could be linked to the amount of average material available at Turkish libraries. If a library has a lot of material, this could mean that any LMS could add relatively more value to the library because of the efficiency improvements it can realize. The circulation rate or amount of customers which are making use of the library is another important factor, in considering LMS solutions. The total market which consists of all libraries in Turkey can therefore be segmented into groups based on the characteristics named above. In Turkey there are public libraries (funded by government), public university libraries (funded by government) and the private university libraries (privately funded). The table below summarizes the Turkish target group. The source of the information on which this table is based is the interviews and market research.

Library type	Amount of material	Amount of users	Circulation rate
Public libraries	Low	Low	Low
Public university libraries	Average	Average	Average
Private university libraries	High	Average	Average

Table 3. Segments in Turkish focus market

The table above shows that public libraries are too small (<http://gelecegiokuyankalemler.blogcu.com>) in order to experience a positive impact of any LMS solutions. In order to justify an investment in any LMS, the attributes above should show an opportunity. Arsis decided to select the larger libraries which are university libraries that are located in western Turkey as the targeted market based on their own internal knowledge. This is justified in table3, which is based on the data collection phase of this report. Concentrating on the larger libraries in first instance is a must because these are the only libraries which fit the characteristics of potential customers. The actual perceived added value according to this research at potential customers actually differs, but still justifies the choice of Arsis in selecting university libraries in western Turkey as the targeted market. This is also confirmed at the DESTEP analyses.

The internet is a powerful additional tool to strategically compete in the targeted market. This tool should not be used to substitute traditional positioning rules, it should rather be used in addition to traditional methods to create the largest strategic advantage (Porter, 2001). The relation between the internet and the attributes mentioned at the FFM of Porter (2008) can be summarized as follows; it generally reduces entry barriers, increases rivalry, increase the information available and thus increases bargaining powers of buyers (Porter, 2001). The role of the internet is relatively small, other than drawing a global image of what Librix is. The only point this research matches the literature of Porter (2001) concerning strategic positioning and the role of internet is that it can be used as a source of information. Arsis described that the potential customers in Turkey did their own research concerning Library management solutions in Turkey, but that they do not realize the core differences between the competitors. Therefore, the only thing the internet can do is create awareness among potential customers, since consultancy like solution as Librix demands other promotional techniques elaborated on in the communication mix (Ingram et al, 2007).

This research focused on creating value propositions through obtaining customer and market data. The customers data are essential in terms of positioning, because Arsis needs to deliver key messages (key attributes which matter to customers) to customers in order to succeed (Levi, 2007). The whole positioning was realized in this research by elaborating on the findings of the interviews, which led to strategy adaptation realized by using the marketing mix and formulating recommendations for Arsis.

2.7 Marketing mix

It is important in this research to come up with concrete results which can be implemented so the offering fits the target market. An appropriate method for realizing this was developed by Jerome McCarthy (1960) and was called the marketing mix. The marketing consists of four factors; product, price, promotion and place (four P's). Combining these four factors in the proper formation, results in satisfying offerings for the targeted market (Borden, 1964). This is in line with the customer value proposition literature, because the four P's can be used to steer the organization into a marketing strategy which will gain competitive advantage. Table 3 summarizes the four P's and considers the attributes per P relevant for this research:

Marketing mix	Relevant attribute
Product	<ul style="list-style-type: none">- Librix product modifications- Services of Arsis (Nedap)
Price	<ul style="list-style-type: none">- Competitor offerings- Importance of price for customers
Place	<ul style="list-style-type: none">- Distribution channel
Promotion	<ul style="list-style-type: none">- Promotional material content/method- Use of references

Table 4. Marketing mix and its relevance for this research

A lot of work has been done on the traditional marketing mix as Constantinides (2006) summarizes in his paper. The majority of the critics of the traditional four P's use the following three arguments; it concentrates too much on internal factors, it ignores the customer's side and it neglects strategic (external) elements too much (Constantinides, 2006). Many attempts have been made to compensate for these deficiencies as reflected by the amount of papers concerning this subject, by for example coming up with "extended marketing mixes" where physical layout, provision of customer service and processes are added to the traditional four P's for example (Constantinides, 2006). Some researchers therefore see the marketing mix as an operational business to consumer (B2C) model and emphasize the shortcomings in a business to business (B2B) setting (Constantinides, 2006). The most important shortcoming in a B2B setting is that the model does not include the importance of relationships and value creation for customers, the lack of strategic components and the impersonal and mass-oriented character of the mix (Constantinides, 2006).

However, this research proved that the marketing mix can be used if these shortcomings are taken into consideration and dealt with. First of all, this whole research focuses on value creation at the targeted market, which deals with the shortcoming concerning value creation within customers. Furthermore, the strategic aspect of this research is done in the pre-execution phase of the conduction of this research. This means that all the strategic choices are already made by Arsis and the question of this research therefore does not focus on the question if Librix can be introduced, but what adaptations Arsis should make with the introduction of Librix. The mass-oriented character of the mix, which is mainly caused by the methods suggested for promoting an offering, did not account for this research. This is because the product offered by Arsis is a problem-solving, long-term oriented transaction (Ingram et al, 2007). The appropriate method to offer the product is to sell it in a consultative way, which is long-term

relationship oriented (Ingram et al, 2007). This research has retained the traditional four P's whereas the impacts of the general limitations mentioned by the authors above are very limited. The marketing mix in its original form as stated above, was a proper method in order to translate the raw data into concrete measures.

2.8 Research framework

The research framework of this paper is summarized in figure 2 below. The research problem of this paper is to determine to what extent the current Nedap Librix value propositions in the Netherlands are applicable for the Turkish market. The figure below represents this by the yellow sections in which the yellow square on top with the text "customer value proposition Librix" represents the current situation, while the bottom yellow square represents the answer to the research problem by following the steps in the figure.

Anderson et al (1998)& Woodruff (1997) mention focus market data and customers data as essential information for customer value propositions. Paragraph 2.2 elaborates on this by choosing the DESTEP and FFM as the models to answer the questions on the competitive landscape and the external influences. The first two research questions of the previous chapter as stated below, are the questions which were answered by using the information gathered from the FFM and the DESTEP analyses.

1. How does the competitive landscape of Nedap Librix looks like in Turkey?
2. What relevant external influences should be considered for Librix in Turkey?

The FFM is used to describe the competitive landscape, whereas the DESTEP analyses provides the relevant external influences to consider for the introduction of Librix in Turkey. By answering these two research questions, the focus market data in terms of customer value propositions was collected. This is represented in the blue section of figure 2.

The red section of figure 2 represents the second essential attribute in creating customer value propositions; "customers data". This data was collected by interviewing current customers in the Netherlands and potential customers in Turkey as described in paragraph 2.2. This part of the research framework is linked to the third research question formulated in the first chapter which is stated below.

3. What are important customer data findings at the current and potential customers?

By answering the first three research questions, the data concerning the two essential attributes in gaining competitive advantage by using customer value propositions was collected (Woodruff, 1997). All these collected data must be translated to concrete usable results for Arsis to successfully introduce Librix in Turkey. The fourth research question of this report which is stated below, was used to realize this with taking the literature concerning innovation (Tidd, 2001) and modularity (Anand & Daft, 2007) into consideration.

4. What marketing strategy adaptations should Arsis consider to successfully offer Librix in Turkey

All the raw data collected by the FFM, DESTEP analyses and the interviews were used as input for the marketing mix (Borden, 1964). The purple section of figure 2 which represent theory concerning modularity and innovative capabilities of organizations/products as described in Paragraph 2.3 & 2.4, were also considered in forming marketing strategy adaptations. These theories therefore were also considered as input for making marketing strategy adaptations by using the marketing mix (Borden, 1964).

All this gathered information and described models lead to new value propositions for Arsis in Turkey, in the form of conclusions and recommendations which answered the research problem formulated in the first chapter and as stated below.

“To what extent is the customer value proposition of Nedap in the Netherlands applicable for the Turkish market?”

The models described above and the research questions were the base in coming up with new value propositions for Librix in Turkey. The blue section of figure 2 represents the first two research questions, the red section the third and the green altogether with the purple section represents fourth research question. The bottom yellow part of figure 2 represents the answer to the research problem by gathering the information needed according to the customer value proposition literature and represent the conclusions and recommendations of this report.

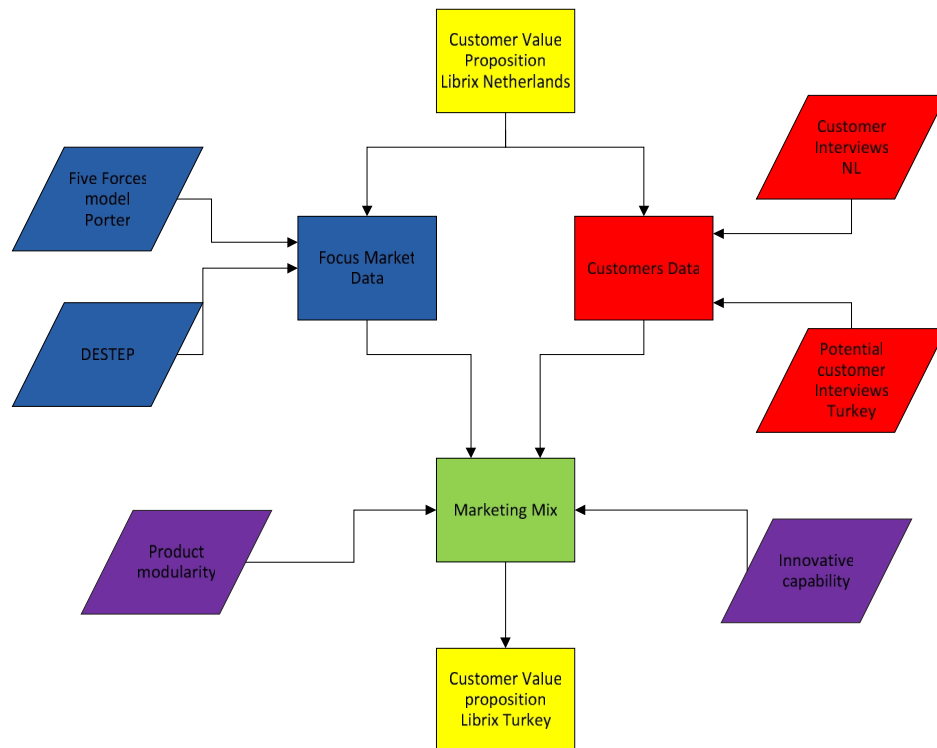


Figure 2. Research Framework

3. Methodology

Qualitative research can be typed in depth understanding of issues, where small focused samples are used to collect data (Shadish, Cook & Campbell, 2002); this research had a clear goal and targeted group. The main method of collecting data was conducting interviews at the targeted group; this is in line with the customer value proposition research where authors mention these methods as the most appropriate data collection method (Anderson & Narus, 1998; Woodruff, 1997). Doing desk research and analyzing secondary data sources, such as previous researches regarding this subject, focus market information and technological development (RFID) in Turkey (desk research) were also a large information source in answering the research questions and the research problem.

3.1 Intake interviews and desk research

The first two research questions had the focus of obtaining market data, which was the first step in coming up with value proposition in the Turkish market. In order to orientate and direct this research to the right information sources, intake interviews at Arsis with the CEO and product manager of Librix were necessary. The interview questions which were designed for obtaining information at the potential customers were used as a guideline for these intake interviews. This was done to first of all inform Arsis about the direction this research was heading, collect global knowledge for the FFM & the DESTEP analyses (market data) and to obtain relevant information sources.

The main source of desk research used in this research consists of the internet, books and scientific literature. The internet served mostly like a quick source of information to empower or reinsure findings of the interviews, while the scientific literature formed the bases of the direction to follow in order to come up with value propositions. The books served the purpose of the steps to take in order to comply to the direction which the scientific literature. For example a quick review of possible models to analyze the market was discussed in the book of Kothler (2009), from which the most appropriate models were selected which fitted the purpose of this research.

The next step was to actually make use of the information sources obtained. In terms of Saunders et al (2007), this type of data can be called secondary data. All these data from the intake interviews and desk research, were used to fill in the FFM and the DESTEP analyses prior to the interviews at potential customers in Turkey.

3.2 Interviews at customers

This research used semi-structured interviews (Saunders et al, 2007) to answer the third research question. This question focuses on what customers in that specific market value mostly about a product, which is in line with the customer value propositions literature in gaining competitive advantage (Anderson & Narus, 1998; Woodruff, 1997). Saunders et al (2007) also mention interviews as the most appropriate way to collect this kind of data.

The interviews were held at current customers in the Netherlands and potential customers in Turkey in order to obtain information about the customers, market and other topics mentioned at the research framework. Four interviews were held in the Netherlands, while there were a total of ten interviews in Turkey. There were only four interviews at current customers because the primary focus of this research

was to come up with value propositions for the Turkish market, and these current customer findings were merely used for referential/comparison purposes. The four current customers that were approached were provided in collaboration with Nedap, in which the customers with the largest amount of knowledge were selected. The selection of the ten customers in Turkey and their sampling criteria is discussed in paragraph 3.4.

3.3 Theoretical & background information of the interview questions

As described above, all interview questions were derived from theoretical or background information. This section elaborates and explains what and why questions are part of this interview. This is done so the reader will have an understanding of the logic behind the used questions and their relevance in this research.

There were several intake interviews at Nedap before the final research problem was formulated which is addressed in the first chapter of this report. Several subjects, which are reflected by the interview questions concerning libraries and universities in the Netherlands and Turkey were discussed. The following questions are based on these conversations/correspondence. The relevance in this research per question is explained as mentioned, and linked to the customer value proposition literature mentioned in chapter 2.

The view of the literature mentioned in the previous chapter on customer value proposition was discussed and global knowledge was obtained concerning the solution and the Turkish focus market. Anderson & Narus (1998) mentioned for example that in the predefinition stage of the problem statement sales people should be contacted for having a global insight in the customer demands. This is done by interviewing, talking and correspondence with the Nedap Librix CEO and salespeople. The interviews, correspondence and the customer value proposition literature mentioned in chapter 2 lead to the following questions;

1. *How is the current sorting/registration process within the libraries/universities?*

During the first interview at Nedap in the Netherlands prior to the problem statement, it was clear that some attributes of Librix which are used to promote the product in the Netherlands are not usable in Turkey, for example the governmental grants which are discussed in the following question (s). The CEO of Librix Netherlands mentioned that first of all it is important to find differences in the registration and sorting process of books in the Netherlands and Turkey in order to understand on which base Librix could be promoted. Also this is important to be able to point out the added value of Librix to the whole process.

Tidd (2001) mentioned the importance of innovation and the required information to be able to innovate. Librix focuses on automating and making the primary process simple so that customers can borrow material from universities and libraries in 3 simple steps. To be able to successfully introduce and built on this success by innovating, information concerning the primary process is required (Tidd, 2001). This question provided this information and demonstrated possible opportunities for Librix in the Turkish focus market concerning the importance of optimizing the primary process, related to the current efficiency based promotion.

2. *To what extent does efficiency play a role in the sorting/ registration process?*

Nedap promotes Librix as efficient way of working and saving on for example labor costs. The Dutch government for example gives libraries and universities grants based on number of employees. Investing and purchasing Librix will lead to fewer employees, which will ultimately lead to lower grants and therefore governmental savings. As mentioned at the previous question, efficiency improvements are the thriving focus of Librix in the Netherlands, because of the governmental influences in the Netherlands. This question lead to the answer to what extent the importance of efficiency is in the Turkish focus market according to potential customers, which is in line with the customer value proposition literature (Woodruff, 1997; Anderson & Narus, 1998). The whole marketing concept of Librix is based on efficiency, this question therefore gave a lot of input for the marketing mix (Borden, 1964).

3. *How is the buying centre configuration and procedure within university libraries in Turkey?*

It is important to determine how the purchasing procedure and the decision making unit (Buying centre configurations) concerning purchases work in the Turkish university libraries (Johnston & Lewin, 1996). In order to gain insight in these issues, this interview question was formulated. By answering this question the decision making process within the targeted focus market and the relevant decision makers were recognized. By recognizing them, scarce marketing resources for example were directed directly to the employees that matter within organizations for the communication mix. These are the employees who can actually initiate the purchasing process (Johnston & Lewin, 1996). The recommendations in this report reflect the importance of this question and demonstrate the role this question played in concentrating on the right people regarding the marketing of Librix.

4. *What and to which extent do third party organizations have an impact on choosing for a solution?*

This question elaborates on the previous question and has the goal to clear out which organizations have a significant influence on the choice for a solution. This is due to the fact that universities and libraries are generally funded (partly) by governmental grants, so they have to be able to justify their choice. Also referent customers were mentioned during the Nedap interview. Dutch libraries and Universities tend to invest easier in such solution when referent customers are available with success stories. As mentioned in the previous question the outcome of this question determined to what extent and which third parties could have an influence on the potential success of Librix in Turkey.

5. *Which (RFID) solutions are available in Turkey?*

This question was included in order to have a complete overview of competitors in the Turkish market for Librix. The FFM and DESTEP provided the most important information regarding this question, but this question discussed and elaborated on the found competitors. Woodruff (1997) and Anderson et al (2006) mention market data as crucial data in order to come up with customer value propositions, so elaborating and having a clear overview of customers is a must in creating competitive advantage through value propositions. Also this way additional information regarding the competitive landscape was obtained and formed input for the marketing mix (Borden, 1964) and recommendations at the end of this report.

6. *What are the three most important attributes a RFID solution should provide a library or university?*

The Nedap Librix CEO stated that most promotional material used in the Netherlands is based on the local customers wishes. Wishes and demands from customers vary globally as mentioned by Woodruff (1997), Anderson & Narus (1998). Therefore to be able to use the promotional material in the proper way it is important to have a clear view on the most important purchasing motives for RFID solution in Turkey. The importance of locality of suppliers were mentioned during this question on suggestion of Nedap. The Importance of locality in this implies whether customers find it important that a supplier is local and if they would consider foreign suppliers. Furthermore by discovering the three most important attributes the whole marketing strategy was adapted as demonstrated in the marketing mix of this report. This question revealed what customers value in the Turkish focus market concerning RFID solutions.

7. *Which product customizations are needed/wanted?*

This question firstly focuses on the current customers in the Netherlands. The current customers have a good view of what Librix does and what it could do. It was important with the eye on the new market to think of new additions to the product. The suggestions made by current customers based on this question, were proposed to the potential customers in Turkey to check if they would appreciate the suggested modifications of Librix.

Anand & Daft (2007) mention the advantages of products which could be customized according to customers wishes and preferences discussed in paragraph 2.4. This is also the situation in the Netherlands where Nedap encourages their customers to come up with suggestions concerning product updates. Nedap is prepared to completely (re)design Librix to the wishes of customers. Librix is a modular product which can be chunked into modules. This question concerning product customizations provided information for the product section of the marketing mix (Borden, 1964) and showed that the focus market indeed prefers solutions which are modular and revealed relevant product customizations.

8. *To what degree is it important that a supplier produces everything it offers?*

A unique selling point in the Dutch market of Librix is that Nedap develops, produces and implements Librix all by itself. There are no third parties involved in any of these processes, so if there are any problems customers can contact Nedap directly. The Librix CEO mentioned that this is considered as an important attribute by the Dutch customers and this unique selling point is used in promotional material. It was important to get to know what the Turkish potential customers think of this because Arsis in fact is a third party supplier for Nedap and cannot use this promotion method.

9. *How do you think the library and university users would react on implementing the RFID solution?*

The view of users is not mentioned during any of the previous questions, but is important according to the Nedap Librix CEO. The end users (library/university customers) are in fact the direct users of the Librix systems. The Turkish people are generally relatively unknown with the English language, where <20% of the total population can speak and understand the English language (Zok, 2010). Therefore it was important to anticipate on such issues and to include this

question to the libraries/universities because the interface of the solution will be English in first instance. Furthermore this question revealed whether the end users recognized the added value of these RFID solutions.

10. What institutional influences should Arsis consider for introducing Librix in Turkey?

Another interesting point which was discovered during the interview with the Nedap CEO is that the Dutch libraries receive grants from the government based on the amount of employees working in that specific library/university. As mentioned earlier this was only an example and other important institutional influences were discovered by considering this question. Woodruff (1997) and Anderson et al (2006) both mention the importance of institutional influences in developing customer value propositions, so including this question in this research was a must based on the literature. Also part of this question was answered in the DESTEP analyses mentioned in the second chapter. This question elaborated on any unclear findings during this analysis. These findings are important to determine the right marketing strategy according to the marketing mix (Borden, 1964) and to come up with customer value propositions (Anderson & Narus, 1998) in Turkey. Also Daft (2001) mentions environmental influences which could have an influence on the innovation possibilities of organizations and its products.

11. What do you think of the current ways of promoting Librix?

There are different promotional techniques used in the Netherlands for promoting Librix. It is expected that there is a big difference in the expectations in both markets. During the interview with Nedap the CEO mentioned that the way to promote Librix in Turkey could be different than the best way to promote the solution in the Netherlands. This question could gain the opinion of the current customers in the Netherlands and propose these findings to the potential customers in Turkey and obtain their opinion on this. Arsis could use the results to promote the solution in the best way. It was therefore important to review the current promotional methods and to let the focus market suggest or think of methods which will work according to them. Anderson & Narus (1998) mention the valuable information at customers which suppliers could use in their advantage. This question is an example of this strategy, because it helped this research to suggest putting the right resources in the right place. Also in terms of value propositions this questions discovered the most valued promotional methods, which was valuable information for the marketing mix (Borden, 1964).

12. What are the most important issues a library/university faces in controlling the whole primary process?

Anderson & Narus (1998) mention value elements (unique selling point which add value according to the customer) as the starting point of coming up with value propositions. This question had the goal to uncover the most faced problems within libraries. This was done to understand if and to what extent RFID solutions could be the solution to the most faced problems in the focus market and thus the possibilities for Arsis to promote Librix based on this knowledge.

The research framework in figure 2, shows that the market and customers data were the basis to come up with value propositions as mentioned in the literature (Woodruff, 1997; Anderson & Narus, 1998). This question uncovered if the Turkish focus market has other issues in contrast to

the Dutch market and to what extent Librix as it is, adds value to the focus market. Also this information provided information for determining the marketing strategy adaptations and developing value propositions at the end of this report.

13. To what extent does price play a role in considering a RFID solution?

The price of the solution is relatively unimportant to Dutch customers according to the CEO of Nedap Librix, because the Dutch government covers most of costs. This could be different in Turkey, while the financial situation of libraries and universities could be different. Therefore including this question was important to be able to judge to what extent the price of a solution is valued by customers in considering any solutions.

The marketing mix of Borden (1964) mentions price as one of the P's, which stands for the importance of price for customers and the price of competitors offerings. As mentioned by Woodruff (1997), market data was required to come up with customer value propositions. This formulated interview question therefore fulfilled the demand to gain knowledge about this factor. This obtained knowledge was directly used in the marketing mix, which demonstrates the importance of price according to the Turkish market.

14. To what extent do the personnel of the Library/university need to be educated in order to work with the solution?

This question is important to be able to determine how university/library personnel actually experience working with the solution and to what extent it differs from traditional ways of working. This was important to know because the current customers in the Netherlands could provide Arsis with suggestions concerning the implementation of the solution in the Turkish focus market. Anderson et al (2006) mention the importance of pointing out the need to find out what customers really value, so this question took the suggestions from the Netherlands to the Turkish focus market. Nedap also trains employees to work with the solution, but because the solution is not available yet in Turkey the training of employees with the potential language barrier could pose problems. In terms of value propositions (Woodruff, 1997), this question demonstrated to what extent training is part of the price of Librix. If a lot of training was needed, the price of the solution would most likely be higher.

A very important role of this interview was that it closed the gap between the perceived and received added value of a Librix (Anderson & Narus, 1998). A lot of suppliers just list all the benefits the product they offer could have, while customers mostly are only interested in a limited amount of benefits which they value the most (Anderson et al, 2006). Understanding the customers in Turkey therefore was very important in the introduction of Librix in Turkey, so that the most valued attributed are emphasized by Arsis and the non mattering attributes are left out.

3.4 Sample

This research used a purposive sampling method, which means that there was a clear reason for selecting the targets in the sample (Shadish, Cook & Campbell, 2002). Chance does not play a role in this kind of sampling method. The clear goal made this sampling method the most appropriate one and the results were exclusively relevant for this specific setting.

The selection of the current customers in the Netherlands was realized in collaboration with Nedap. These four selected customers were approached by e-mail to make appointments. The population of these customers were divided into two groups, long-term and relatively new customers. The distinction was made due to the fact that the received value according to customer can differ over time. The two customers which are relatively new to Librix can have a whole different perception of the added value and other important features of Librix compared to long-term users. The chance of identifying shortcomings is also higher at long-term users, because they had the time to figure the whole product out.

The ten potential Turkish customers were approached in Turkey by telephone and the interviews were personally conducted. Arsis Grup is established in the three major cities of Turkey; Istanbul, Izmir and Ankara. This research was primarily conducted in Istanbul, because of the long travel distance between the cities. The selection of the universities to approach was made in collaboration with Arsis where the potential customers (university libraries) were selected based on the amount of customers they serve and literature/material available in that library, because of the efficiency improvements Librix can provide. Arsis anticipated that relative small universities and or libraries are not prepared to invest such a relative high amount of money in a solution, because efficiency will not be a problem in this customer segment. The list of the universities visited during this research can be found in Appendix C.

3.5 Validity

Every research has its problems concerning the validity (trustworthiness) of findings during a research. To determine to what extent the results of this research were close to the truth, the validity of this mainly qualitative research was considered (Golafshani, 2003). The nature of this research (Qualitative research) called for other criteria to measure the trustworthiness of this research due to the better reflection of the underlying assumptions (Lincoln & Guba, 1985). The table below reflects the validity criteria considered in this research including its attributes compared to the classic criteria:

Traditional criteria	Qualitative research alternatives and attributes
Internal validity	Credibility → 1. Prolonged engagement 2. Persistent Engagement 3. Triangulation 4. Peer debriefing 5. Negative case analyses 6. Referential adequacy 7. Member-checking
External validity	Transferability → 1. Thick description
Reliability	Dependability → 1. inquiry audit
Objectivity	Confirmability → 1. Confirmability audit 2. Audit trail 3. Triangulation 4. reflexivity

Table 5. Trustworthiness of qualitative research (Lincoln & Guba, 1985)

The first criterion credibility reflects the degree of truth of the found results (Lincoln & Guba, 1985). The findings in the FFM and DESTEP in this research were verified and elaborated on by executing interviews, which covers triangulation and member checks attributes of credibility. Prolonged engagement is being achieved by first approaching Nedap and current customers in the Netherlands in order to have understanding of the offering and customer benefits, demands and other relevant information (persistent observation).

Due to the nature of this study lost customers are not considered in this research (negative case analyses & referential adequacy), this could mean that found results at potential customers which will be considered as demands for example could be in fact drawback for lost customers. Peer debriefing is not relevant in this research.

The extensive description is covered by the detailed research framework and methodology in this research. The extent of generalizability to other settings is somehow limited because the offering and market considered are very specific and will most likely lead to results which are only applicable for the current situation.

As mentioned at the external audit, the confirmability audit is not considered in this research and may pose a bias. Triangulation is discussed in the previous section. This research includes all the data collected, which covers audit trial. The thick description mentioned at transferability adds to most of these attributes. As a final attribute, reflexivity mentions the biases caused by the background of the researcher. The occupation, beliefs, position and other factors all may have an impact on the perspective a researcher has on the research and its results. This research was conducted but supervised by multiple stakeholders, so the results are relevant for this specific setting. The irrelevant results were filtered by these stakeholders, therefore this bias is ruled out to some extent.

4. Results

The main goal of this chapter is to analyze and discuss the findings found by carrying out research methodology discussed in the previous chapter of this report. The first step in carrying out this research is to gather general information at Arsis regarding the Library management system (LMS) market in Turkey. This is done by interviewing the CEO of Arsis and another employee responsible for promoting Librix in Turkey. These interviews formed the basis of the Five Forces Model (FFM) of Porter (2008) and DESTEP analyses and will be discussed before analyzing this found data according to the models. Furthermore it is important to understand what LMS is and how LMS systems work in general, before elaborating on the findings of the interviews. Without this knowledge it will be hard for a neutral reader to understand the findings and the differences in the LMS technologies present in the Turkish market. Therefore a plain explanation of LMS systems is given.

A LMS is a complete system for libraries that controls the tracking of items, registration of orders & users and any financial streams in and out of the library. The general data model of LMS systems used all over the world is presented in the figure below, in which in some cases the server and database are integrated into one in some LMS solutions.

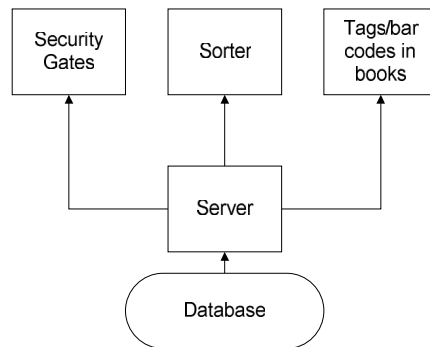


Figure 3. General LMS data model

The database is the core for any LMS system which holds all the information concerning the library, from user information to the information of all the available material within a library. The server connects this pool of information with the other systems within the library so that the other systems can operate. These systems do not store any information, but rather request information from the database. There is also a new LMS type emerging in Turkey since 2007 and that is LMS based on the RFID technology. For now it is important to make a distinction in the general data model which is called LMS & UHF (RFID), while HF (RFID) LMS is discussed and elaborated on in the next paragraphs.

With this global knowledge described, this report first describes the Turkish LMS market and its environment, analyze the wishes and preferences of current and potential customers which were ultimately translated to a marketing technical perspective, in the form of the marketing mix. The marketing mix formed the base for the recommendations concerning the research problem.

4.1 Interview findings

The interviews which were held in Turkey had the goal to collect data from the potential customers perspective in order to find out what they value the most. It could be called that a lot of interesting findings were made, where the difference between the received added value of customers of Librix in the Netherlands and the perceived added value of potential Turkish customers in Turkey became transparent. The results of the interviews are summarized in this paragraph per question, where after the data is used for analyses purposes in the FFM and the DESTEP.

1. *How is the current sorting/ registration process within the libraries/universities?*

The current sorting and or registration process in current Turkish libraries can be divided into three categories, which are the market segments discussed in paragraph 2.6. The first category consists of public libraries, which do not use any type of LMS and instead do everything manual since their collection and users are too small. The second segment and the third segments are the university libraries. The private libraries are a bit different and tend to emphasize the importance of keeping up with Western standards, but for this question its purpose they can be grouped. The university libraries mostly use database type of LMS solutions. The data model which represents this process is drawn in figure 5.

2. *To what extent does efficiency play a role in the sorting/registration process?*

All the libraries which were interviewed where larger university libraries, on which a neutral research would expect that efficiency is very important to them due to the relative large amount of material and the high circulation rate. Nonetheless all the respondents in this research do not see efficiency a valid argument to invest in any solution. Further questioning revealed that being efficient/automation reduced the number of jobs within the university, while they find it important to offer students part time jobs for example. Furthermore the average labor wage is relatively low, thus they do not really see clear benefits from RFID LMS solutions.

3. *How is the buying centre configuration within university libraries in Turkey?*

The public university libraries and the private universities have the same buying centre configurations. However, the public university libraries can request funds from the government. In general the decision making process within libraries is as described in the following figure.

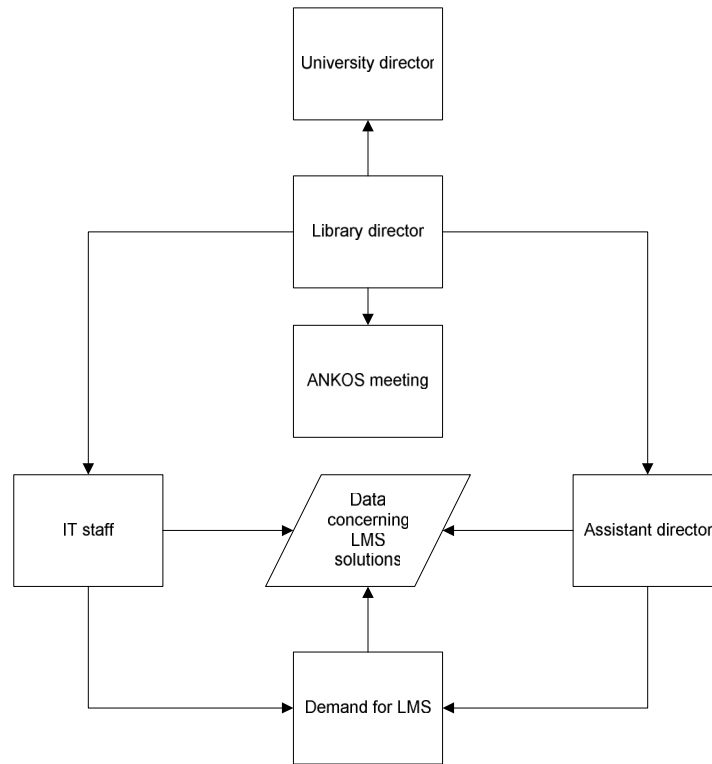


Figure 4. Buying centre configuration in Turkish libraries

When a library gets larger and the users increase, the demand for a LMS solution also increases. Figure 4 starts when this occurs, where the IT staff and the director assistants usually determine together the demand for LMS when present technology is not sufficient anymore. The IT staff collects data and analyses the LMS data from a technologic perspective, while the assistant director fills in the price and general knowledge. All this collected knowledge is reported to the library director, which has to choose for the best suiting solution according to the data presented by its workers. Before a director chooses for a solution a meeting at the ANKOS is arranged to share knowledge, information and discuss the preferred solution. If a choice has been made, the approval of the university director is required to actually implement the solution. A side note which is not presented in this figure is that the university director of public libraries can request funds from the government, which a private university cannot do.

4. *What and to which extent do third party organizations have an impact on choosing for a solution?*

Third party organizations are very important in the choosing of any LMS solutions. The ANKOS organization was named as the place to collect and share information concerning any topic. Almost every university director is a member of this organization and instead of competing with each other, a very healthy and supportive ambiance is present. References as in current users of any solutions are very important also and every respondent considered that as one of the most important selling points.

5. *Which (RFID) solutions are available in Turkey?*

The LMS solutions used by the respondents of these interviews are listed in appendix C, while a summary of all the available solutions is presented in table 6.

6. *What are the three most important attributes a RFID solution should provide a library or university?*

All the respondents agreed on the following three attributes, which were considered the most important in purchasing a LMS solution: (1) the price, (2) service level and (3) references.

7. *Which product customizations are needed/wanted?*

The respondents of the interviews only mention tracking technology as the missing part of RFID LMS. They did not really see the added value of RFID in their library because they share the vision that current database type LMS are equal to RFID LMS. This is because the whole efficiency improvement point of view is not applicable in Turkey. However if the RFID LMS solutions in the future offer the possibility to libraries to track their books by using GPS like technology in their chips, they would start to consider these solution. The added value of tracking is that lost books for example can be found by using this feature.

8. *To what degree is it important that a supplier produces everything it offers?*

This was not important at all. All the respondents mentioned that if the service level is sufficient, the production country is not important. However the Millenium users did not agree and mentioned that Western European production in their opinion are superior to Turkish productions. This was also the main reason for them to choose for a non-Turkish solution. Further questioning them revealed that for example Sabanci university want to keep and improve their contacts in the Western world, that is why they strive for their standard by using Western products.

9. *How do you think the library and university users would react on implementing the RFID solution?*

This question separated the Millenium users from the other solution users. The Millenium users mentioned that the product fits the western standards, which will attract students which want to graduate from a worldwide known university. Some characteristics of hunting prestige were mentioned in which students tend to increase their career opportunities by graduating from such a university. On the other hand they shared the vision that RFID is not interesting enough at this moment, because the database type LMS fits their wishes for now. Therefore implementing RFID on one hand could bring prestige of "matching western standards", but is not necessary at this stage. The users will most likely be disappointed because many students work part time in libraries and earn part of their costs this way. Switching to RFID will most likely cause these jobs to disappear.

10. What Institutional influences should Arsis consider for introducing Librix in Turkey?

The most important influence to take into consideration is the fact that Turkey want to invent, produce and consume products in the future. They are running a pilot within the automobile industry and if this will be a success, they want to cut of foreign products as much as possible.

11. What do you think of the current ways of promoting Librix?

Promoting any LMS should be done by demonstrating the added value a solution can bring. The current ways of promoting are advertising and personal conversations, while no running instance of the solution is present. All the respondents agreed that they should be able to see what benefits a products can bring. Therefore Arsis should obtain running instances (referent university libraries) as soon as possible in Turkey.

12. What are the most important issues a library/university faces in controlling the whole primary process?

The respondents did not mention any issues apart from the fact that some books get lost in their libraries. Therefore a tracking chip within the books of RFID solution could be an added value.

13. To what extent does price play a role in considering any solutions?

The respondents mentioned the price as the most important factor in considering any solution.

14. To what extent do the personnel of the Library/university need to be educated in order to work with the solution?

Real education is not needed on the hardware part according to the respondents. However to maximize the added value of Librix within libraries, the personnel needs to be able to work with the software of the solution. Therefore education on this matter should be considered. Also the instruction language should be Turkish, which is also a problem since Arsis itself just started learning the possibilities of the solution.

4.2 The five forces model applied to the Turkish Library market

The purpose of the five forces model (Porter, 2008) in this research is to obtain knowledge about the focus market on beforehand, before executing the interviews. This is done to explore and to be able to discuss and question any statements from potential customers during these interviews and to build on the interview findings at Arsis. Furthermore describing the market revealed the attractiveness of Turkey concerning the introduction Library Management Systems (LMS).

4.2.1 New entrants

Entering the Turkish market with a new LMS system is not an easy thing to do for Turkish firms, but also for foreign investors in Turkey. First of all, because of the entry barriers which are relatively high for the LMS market in Turkey according to the interviews respondents. Developing a complete LMS product which successfully attracts potential customers is not likely due to the high development costs of technical products which are part of the LMS. The development costs could be even higher if universities prefer customized products and the ultimate sale price will be relatively high compared to incumbents this way. Entering the Turkish market in a collaborative way for new entrants but also for foreigners is recommended, as further explained below.

Turkey is a country where networks play a major role in obtaining customers (Cavusgil et al, 2003). A distinction must be made for local and foreign suppliers. Turkish customers tend to prefer local suppliers above foreign, even if the foreign suppliers have a net advantage in their offering (Cavusgil et al, 2003). Therefore the best way to enter the Turkish market for foreign suppliers is by joint ventures (Carter, 2010), where the identity and name of local suppliers is used to offer the foreign products. The most important attribute for success for new entrants is that of relationship marketing. They should make sure to obtain one or two customers (if possible offer the products very cheap) and interact closely with them and build a long term relationship (relationship marketing). The relationships/networks are very important and therefore being able to present references in the library market in Turkey is essential in order to succeed (Ozturk, 2003). Presenting and being able to have your product backed by current customers is essential in any focus market of Turkey to succeed.

The advantages of current incumbents are obvious. As stated above relationships are a critical success factor for new entrants. It will be hard especially for foreigners to gain a foothold in the Turkish library market, due to the fact that incumbents already have these relations and connections. The Turkish customers tend to be fairly loyal and also with relative high switching costs it seems that chances of new entrant in the Turkish LMS market is limited (Cavusgil et al, 2003).

4.2.2 Rivalry among existing competitors

The intake interviews at Arsis revealed several players in the Turkish Library management systems market. The biggest competitors in the Turkish market can be distinguished into RFID based and standard LMS solutions. The table below summarizes the organizations which offer LMS systems and are known in the Turkish market.

Organization Name	Type of offering	Focus market	Origins
Yordam	Database	Turkish	Turkish
Millenium	Database	Global	American
Ankaref	Complete RFID solution	Turkish	Turkish
3M	Database, Security systems and auto-check in/out	Global	American

Table 6. Competitors in the Turkish LMS market based on interview findings

3M and Millenium (Innovative Interfaces) are the two biggest organizations which operate in the Turkish market. These two organizations operate globally and offer various other products and services. 3M is a multinational which offers numerous products which differ from healthcare products such as gels, to security gates or chips used in the LMS solutions. Innovative Interfaces is an American company which offers solutions to libraries worldwide. Millenium which is their main product is an integrated library system which is used worldwide in more than 40 countries (www.iii.com). Innovative Interfaces only focuses on libraries in contradiction to 3M (www.solutions.3m.com).

Yordam and Anakaref are two Turkish organizations which offer LMS products. Yordam which was founded in 2001 offers a database like system which is called File Maker Pro and focuses on the Turkish market (www.yordamkitap.com), which is also reflected by its amount of local references (Appendix C). Ankaref which offers LibREF as a library solution was founded in 2007. The company is relatively young but successful. Ankaref offers a complete LMS solution, which means that they also offer security gates, check in/out/sorter and tags besides of the database, which is the heart of any LMS. Compared to the other competitors in the market, Ankaref is the smallest but growing rapidly which is reflected by the amount of references in such a short period of existence (www.ankaref.com).

All the organizations offer LMS solutions were the solution of Ankaref is the only one based on the RFID technology. The LMS products offered in Turkey can be grouped into 2 Types: RFID based and standard LMS solutions. The RFID-based LMS-solutions are relatively new in the Turkish market. The main difference of the RFID and non-RFID solutions is that a RFID-solution is a complete solution bought from one supplier, while the standard offerings are mostly non integrated solution. A non-integrated solution in this means that the library considering this solution must buy a database of the LMS from for example supplier A, the security tags in books and the gates that secure them from supplier B and the self operating machines from supplier C.

This problem is not present in RFID solutions because all these products are integrated in one solution. 3M does offer a LMS database, but is better known in the market for their hardware machines such as check in/check out machines and security gates. Yordam and Millenium both are databases were the one (Millenium) is older and has more advanced options according to the information provided by Arsis. The RFID solution of Ankaref is based on a whole different technology and offers a complete solution,

where the databases of Millenium and Yordam are often connected to the machines of 3M according to the interview respondents.

With this distinction clear, it is useful to focus on the RFID and standard LMS solutions itself; to what degree the products are differentiated. The competitors are described in table 5, where Yordam and Millenium are direct competitors while 3M and Ankaref are indirect competitors from an LMS point of view. The LMS solutions of Yordam and Millenium are very similar. The most important difference between the products is that Millenium is a lot more expensive in purchasing price and Millenium seems to be some steps ahead of Yordam from a product development perspective. Millenium is more detailed and has more opportunities talking about the options for example in creating management reports. Yordam can therefore be typed as simpler but also a lot cheaper solution. Other technical differences do not matter in this research because it is out of context when looked at the purpose of this research. Ankaref and 3M offer complete RFID solutions, but somehow 3M is only known in the Turkish market for their self operating machines and security products, while they do offer a complete LMS system. Comparing Ankaref with the others is not realistic. This is because the RFID and standard solutions are very different, in price, technology, opportunities and also added value for the libraries.

The LMS market in Turkey can be typed as a stable market, due to the stability of customers and potential customers. It is hard to talk about industry growth, because most of the libraries in Turkey which use LMS are university libraries and that is why this research focused on obtaining information from these university libraries (www.ANKOS.com.tr). Most of the public libraries in Turkey are so small that there is need for automation systems. Most of the current libraries which are in need of a LMS already use a LMS and because libraries as customers do not pop up in the market, the industry growth in the LMS market in Turkey can be typed as stable and there is a relatively long product life.

Problems for new entrants are summed up above but the exit barriers were not among them. The exit barriers are also a problem for new entrants. Most of the larger libraries already use LMS, which is understandable due to the high amount of loan able material. Switching to a new (RFID) solution firstly demands a big financial, but also for example human capital investment because of a new way of working. Secondly quitting their current LMS will most likely cause that some of the machines such as check in, check out, security gates and bar code readers will become useless due to other technological standards. This will cause a high loss of investment made in the past what could cause universities to stick to their current LMS.

4.2.3 Power of suppliers

The amount of suppliers play a big role in determining the attractiveness of a certain market. A big number of suppliers which offer homogenous goods will make that market saturated, while a relative small amount of suppliers will cause relative high prices for consumers (Kothler, 2009). The dimension power of the supplier in the five forces model of Porter (2008) includes several other determinants in order to determine whether the market analyzed is interesting, as can be found in figure 1. The products offered in the LMS market in Turkey are homogenous to a certain degree. There are a few major players, which is discussed in the rivalry among existing customers dimension of this FFM.

The supplier's side of the FFM (Porter, 2008) is not relevant for the introduction of Librix into the Turkish market. Arsis is the organization which imports and sells the complete Librix product. The supplier in this case is Nedap, which is the producer of Librix. Arsis can be seen in this specific situation as an intermediary, which is necessary to enter the Turkish market. The product Librix is not differentiated at all, it is rather one standard solution produced by Nedap, which can be adapted to the wishes of the customers as is found during the interviews at Nedap. Arsis could have chosen alternative LMS solutions to introduce in the Turkish market, but they were really convinced of the product Librix. The interview revealed that the main reason for this was the large amount of references of Nedap worldwide. Librix is known and used by a lot of libraries in Europe and all the references were really positive about the company Nedap. This made it for Arsis easy to choose for Nedap Librix instead of others. Arsis is not dependent on Nedap as a supplier at this moment, because the organization did not sell the product to any customer yet. The potential of the Turkish market is great, but Arsis realized that there are several points of resistance which are discussed later in this report. At this moment Librix in Turkey is at its introduction phase in terms of the product life cycle (Kotler, 2009), thus the profitable contribution of Librix to Arsis as an organization is zero at this moment. It is impossible for Nedap to even consider forward integration at this stage, because of its dependence on Arsis for success. Succeeding in the Turkish market makes it necessary to have connections and therefore Nedap is rather dependent on Arsis than the other way around (Cavusgil et al, 2003).

4.2.4 Power of Buyers

Libraries that could become interested in LMS solutions are the libraries that have a certain amount of loan able material and libraries users. The Turkish public libraries have an average of 9000 books per library available for the public, while this number is higher than 1,000,000 for the university libraries (<http://gelecegiokuyankalemler.blogcu.com>). This research mentioned the added value of LMS in general and RFID specifically for libraries. The public libraries do not qualify as potential customers because of low amount of available material. With this clear, the focus of LMS solutions lies at the 172 universities and its libraries in Turkey (<http://tr.wikipedia.org>).

The switching costs as also described at the new entrant dimension of this analysis could be typed as relatively high. This is primarily because most university libraries already use some kind on LMS products and if they were to decide to switch to another, the current systems, machines etc. will become unusable not mentioning the time to invest in personnel in order to work with the new system which will demand a high investment from a financial perspective according to the interview respondents. The products offered in the LMS market of Turkey could be typed as standardized products, because the offerings do not change due to other circumstances in other markets. This is also a part of the goal of this report to illustrate if and why circumstances lead to other demands of customers which is called customer value proposition in this report. The LMS products summed up in the rivalry among exciting current competitor's dimension are standardized offerings which can be applied for any library in any country. There is no need for customized products, but if required the suppliers could bring modifications to the standardized products they offer to meet the customers wishes, as described on the websites of Nedap and the competitors listed in table 5.

4.2.5 Threats of substitutes

The switching costs are discussed several times in this analyses and it seems that the switching costs for current customers are high. This will make it difficult for new entrants to have a foothold in the Turkish library market, also due to the limited amount libraries which qualify as potential customers. Porter (2008) mentions also the price-performance tradeoff of substitutes to keep in mind. The definition of tradeoff in this FFM is the fit between price and performance of products (Porter, 2008). Questions such as to what extent the price can be dropped without affecting the performance of that certain product or the other way around. The current substitutes available in the Turkish market compared to the HF RFID technology used by Arsis are the standard LMS solution and the UHF solutions as described in figure 5. The rivalry among existing customers demonstrates that the incumbents in the Turkish LMS market are the database type of solutions. This is because the prices/performance tradeoffs of these solutions are favorable. The database type of LMS fulfills the demand of libraries in managing their library for a relative low price compared to RFID solutions according to the interview respondents. The HF technology that Librix uses is a lot more expensive and RFID solutions in general should be considered as the substitute products in this analysis. This is because most of the university libraries already use LMS as mentioned before. The high switching costs, the price of the products and the relative low knowledge concerning RFID will make it hard for Librix to succeed as a substitute.

4.2.6 Conclusion

It is firstly important for foreign companies to recognize the importance of networks within Turkey. The results of the FFM demonstrate that it is very hard for new entrants to succeed because of the high development costs, relative low amount of customers and saturation of the Turkish LMS market. The market is furthermore typed as stable because of the relative low amount of customers, high switching costs which forces customers to be loyal and the low amount of market growth. The suppliers of Arsis which is Nedap has a low influence on Arsis concerning the product Librix and other decisions the company takes. Arsis is a standalone company, but types itself as a daughter in order to demonstrate the potential customers in Turkey the amount of global references they have, but in truth it is not possible to speak of collaboration. Every choice Arsis takes concerning Librix is made by the company itself. The suppliers also have a relative low influence on Arsis because all of the potential customers already have some sort of LMS. The high switching costs force the buyers to stick to their solution which weakens their position. The RFID technology used by Librix itself is new and therefore the product Librix should be seen as the substitute in the market, because all the customers already have standard LMS. This FFM had the goal of answering the first research question concerning the competitive landscape of Librix, mentioned in the first chapter. The competitive landscape of Librix can according to this analysis be typed as a stable and saturated but hard to enter market.

4.3 DESTEP Analyses

The DESTEP model in this research was used to describe the macro-environmental influences. As mentioned in chapter two, a full macro-environmental analysis was not necessary because most of the factors of this model do not apply to this research's context. The factors which could apply for this specific setting were selected and all the findings discussed hereafter are linked to the Turkish LMS and related to the introduction of Librix in Turkey.

4.3.1 Demographical influences

The total Population of Turkey is approximately 75.000.000 (<http://www.tuik.gov.tr>). Istanbul, the city where the main part of this research is conducted accounts for 13.500.000 inhabitants with a growth percentage of 2,76 per year, while Ankara and Izmir as second and third biggest city have respectively 4.000.000 and 3.000.000 inhabitants (<http://www.tuik.gov.tr>). The general knowledge of the English language is relatively low compared to that of the European. In Turkey 17% of the population seem to speak the English language (Eurobarometer Report, 2006).

Linking these findings to LMS products and to that of the FFM reveals that new entrants, with especially foreign new entrants will have some problems in entering the Turkish market because of the language barrier. Furthermore the LMS products offered must be understandable for the end user, so these findings support the fact that the LMS software must be written in the Turkish language. The spreading of the total population of Turkey demonstrates that not all regions of the country are equally interesting for organizations offering LMS products. As stated above Istanbul accounts for approximately 20% of the total population, while the second and third largest city of Turkey Ankara and Izmir are far behind, not only in linguistic terms but also in amount of services (educational/work opportunities). These findings support the fact that western Turkey is the most interesting part of the country at this moment, from a demographical growth perspective in relation with the economical growth which is discussed in the following paragraph.

4.3.2 Economical influences

Most of the economical developments cannot directly be related to the subject of this research whether Librix can be introduced in Turkey. However some aspects of this element within the DESTEP analyses could be interesting to mention. First of all nowadays Turkey is typed as an emerging economy all over the world (<http://www.IMF.com>). The great increase of potential is also noticed by foreigners and the country is becoming more and more interesting for foreign direct investment (FDI). This is also illustrated by the Gross National Product (GNP) over the past years, where in 2001 the GNP fell 9.5% the strong governmental policies and structural economic reforms made the GNP to rise 6% every year from 2002 till 2007 and reached a peak in 2010 with a growth of 8.2% (<http://www.state.gov>).

The unemployment rate of Turkey was 12% in 2010, while this percentage was 14,2% in 2009. This decrease is also illustrated by the GNP growth and the whole positively progressing economical situation in Turkey, with the inflation rate of 8,6 percent in 2010, while the mean inflation from 1965-2010 was 39,7% (<https://www.cia.gov>).

Furthermore the Turkish economy is based on the Turkish Lira (TL). Comparing the value of the TL to the American Dollar (USD), the EURO (EUR) or British Pounds (GBP), which are internationally most used currencies, makes it clear that it will be harder for foreigners to enter the Turkish market (<https://www.cia.gov>). This is mainly because 1TL is 0,57 USD or 0,43 EUR or 0,36GBP (<http://themoneyconverter.com>). This means that if a Turkish library decides to buy a product from abroad, the investment as demonstrated in the example above would have a large impact on their financial structure because of the disadvantageous currency rates.

All these developments illustrate the positive progression of Turkey in the past year economically. It is easy to link these developments to the LMS market, because these developments make it more interesting for FDI. More and more organizations are prepared to consider Turkey as market which is interesting for their products. Cavusgil (2003) mentions networks as critical success factors in succeeding with a new product in a certain market, but the demand side should also be considered. The libraries in Turkey could gain a better position financially and they could be prepared to invest in “new” RFID LMS solutions. Still there should be enough end users who borrow books and other material from libraries to justify the investment, but linking the demographical influences to the economical show opportunities. The economical situation is still improving and the Turkish focus market seems interesting, but with a low material circulation LMS in general, and RFID LMS specifically is unnecessary because RFID is promoted as efficiency boosting technology in the primary process of libraries and the costs will thus not outweigh the benefits.

Another issue which is not directly economical is the illiteracy in Turkey. According to CIA fact book around 8% of the total population in Turkey does not know how to read and/or to write in 2010, compared to other countries this percentage is relatively high (<Http://www.cia.gov>). Linking this to the words of Bayir (2008) who was the head of the of the Istanbul public libraries, he stated that “people who are not educated to a certain degree tend to work”. This could mean that the lower educated people tend to read fewer books in their existence and thus are less likely to visit libraries. This is mainly caused by the nature of their work which does not require these people to read books for example. This is off course a statement based on the findings, but there seems to be a truth to a certain degree since the public libraries as found until this point are not interesting for the population, with the exception of a few bigger public libraries. This point is also confirmed by the average educational years of an adult which is 5,3 years in Turkey which ranks the country at place 61 while the average is 6,2 years (<http://www.nationmaster.com>). This could be a threat at this moment, but become an opportunity over time because of the positive economical development. The economical development linked to the socio-cultural in the next paragraph, makes it transparent that the educational years will increase over time and that the demands of books and thus libraries will increase. This will make LMS more interesting in the future if these developments will continue.

4.3.3 Socio-Cultural influences

Comparing the Turkish culture, norms and values to that of the Netherlands could bring a lot of interesting points to the surface but it exceeds the purpose of this report to do this. Therefore in this dimension of the DESTEP only the lifestyle and urbanization are picked out which can lead to opportunities or can cause problems with the introduction of Librix in the Turkish market.

Cavusgil (2003) mentions the importance of networks in his report and emphasizes the fact that relations are very important. This is in line with the Turkish culture and norms and values as also found during the intake interview and FFM of Porter (2008), success in Turkey can most likely be found but not exclusively be found by creating networks in the Turkish market.

The lifestyle of Turkish people is also very different compared to traditional European countries. There is a big gap between Eastern Turkey and Western Turkey. Compared to the West, Eastern Turkey is underdeveloped from many perspectives such as economically and socially (Ozturk, 2002). The most important problems mentioned by Ozturk (2002) in this research context are; Social environment is less developed, inadequate educational facilities, most of the population is taught Kurdish as a first language and illiteracy rate is highest in Eastern Turkey (Ozturk, 2002). The inhabitants face general problems such as not being able to read, so visiting a library for these people is useless to a certain degree. Furthermore most of the inhabitants in eastern Turkey live in rural areas (small villages), it is hard to build schools/libraries in such areas because most of the inhabitants migrate to bigger cities when they decide to receive higher education (Rad et al, 2011). Another problem within Turkey as a whole, but especially Eastern Turkey is the gender inequality within the country. Rad et al (2011) mention an illiterate rate of 13,1 % in the Marmara region (Western Turkey) for women, while this percentage goes up to 46,3% for the Southeastern Anatolian region.

All these factors together point to a direction from the LMS perspective in Turkey that these Eastern regions of Turkey are not very interesting for LMS products at this stage. Libraries are dependent on the people visiting them. In order to even consider any LMS, the circulation of material owned by the libraries should be high. With these issues out of the way the potential of Turkey as a whole is very high, also due to the limited amount of facilities such as libraries in Eastern Turkey (Rad et al, 2011). When looked at the potential population that could visit libraries in the future if the sociological problems were to diminish, Eastern Turkey could be as interesting as Western Turkey. The economical progress will most likely lead to the further development of whole Turkey. Therefore keeping a close eye on the Western part of Turkey is recommended, since the government is also trying to invest in this part of the country.

4.3.4 Technological influences

From a technological point of view, Turkey developed very rapidly during the last years. For example, the internet usage of the country went from 2,9% in the year 2000 to 45% in 2010. Compared to a developed country as the Netherlands where 88% of the population uses the internet in 2010, Turkey still lags behind (<http://www.internetworldstats.com>). But as demonstrated by this example Turkey is developing rapidly from a technological point of view. As stated in earlier dimensions of this DESTEP

analyses but also in the FFM (Porter, 2008), a lot of libraries in Turkey are far behind the European standard (<http://gelecegiokuyankalemler.blogcu.com>) from different perspectives according to the interview respondents. Most of the libraries are not big enough to benefit from LMS solutions, to further specify this perspective it could be interesting to find out the know-how of LMS for libraries that do qualify as potential customers. This is done by interviewing potential customers as described in the second and third chapter of this report.

Another important issue concerning the technological development in the Turkish RFID market is the High frequency RFID and Ultra high frequency debate. In order to draw proper conclusion this research summarizes the two technologies including statements from the library executives, to empower or tackle these statements. The table below summarizes the most important characteristics/differences of the two technologies for the library market (Butters, 2008):

High Frequency (HF)	Ultra High Frequency (UHF)
Operates at 13.56 Megahertz	Operates between 860 and 960 Megahertz
Tag size is 50mm x 50mm	Tag size is 12mm x 97mm
Read range is 70 cm	Read range up to several meters
Memory capacity 256 to 2048 bits	Memory capacity 64/96 bits
Tag is usually visible	Tag is invisible
Internationally used standard	No international standard
Relative high price per tag	Price is 1/3 compared to HF tags
Standard support ILL (InterLibraryLoan)	No standard support for ILL (InterLibraryLoan)
SIP/SIP2 support	No standard support for SIP/SIP2

Table 7. HF and UHF comparison (Butters, 2008)

According to Butters (2008) both technologies are suitable for serving the wishes of libraries and it is hard to point out the net benefit of UHF over the HF technology.

The table drawn above mentions two standards which could be unclear to a reader. ILL and SIP/ SIP2 are two integrated standards in the HF solutions available in Turkey. This is because most of the world uses HF in libraries and this kind of standard had time to integrate into the solutions. ILL stands for Inter Library Loan, which is the process that a library could check if a book is available in other libraries in their network. This way a web is created in which the participating libraries make their good available to one and another through the RFID solution. SIP/SIP2 is the protocol which makes it possible for RFID solutions (self-service products) to communicate with each other. These mentioned standards are not integrated in the solution available which use the UHF technology, but rather can be coded on demand

by suppliers which is very technical and does not serve the purpose of this thesis. The two figures beneath illustrate the differences of the HF and UHF solutions available.

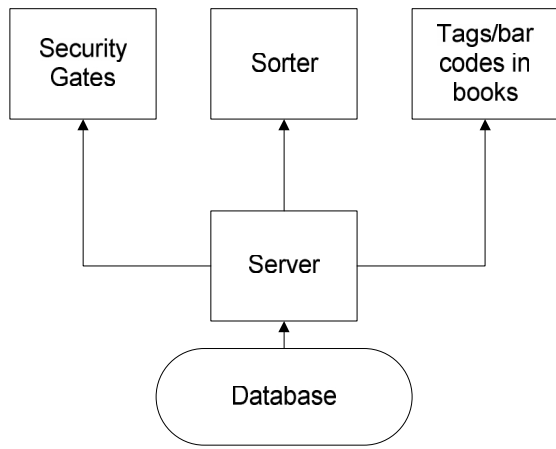


Figure 5: UHF and other LMS solutions data model (general model)

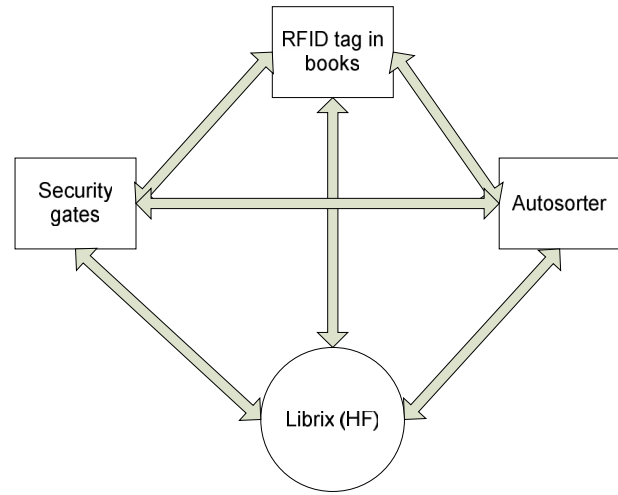


Figure 6: HF solutions data model

These figures show that the UHF technology is very different from the HF data model. First of all it is important that most of the universities use the UHF data model in Turkey and that this model is very common. The model works with a database which holds all the information concerning the material available in the library, as stated in the FFM of Porter (2008) this is usually Yordam FileMaker in Turkey. Library users can easily request any information from this database. The next step, which is usually coded by UHF is to set up a local server in the libraries so the database is able to “communicate” with the self services machines as presented in the figure. Ankaref is an example of an organization which uses this method. The self serving products mentioned in the figure above cannot function without the database or server because they all request their information from here. Also they cannot operate stand alone and this is why the server uptime in this solution method is very important. There is no such thing as cross-functioning, which means for example the RFID tags can function without the server as is illustrated by the one way arrows in the figure.

The HF data model is completely different, but this is most likely due to the fact that this technology is more mature. The HF solution combines the database and server into one module of information center. All the self operating systems available can interact with each other without the need of the information center as the arrows illustrate in the figure. The main benefit of this is that if the information sever crashes or fails, the primary process can continue without a problem because all the self operating machines keep functioning. This is due to SIP/SIP2 protocol as explained earlier, which is not a standard, but rather coded afterwards in UHF solutions.

The research of Butters (2008) and this research cannot specifically point out a net winner of this HF/UHF debate. Both technologies have their pros and cons viewed from a neutral point of view, as listed in the table above. It seems also based on the number of libraries using the technology that UHF has an advantage in the Turkish market, this is primarily caused by the price. It is important for this

research to recognize this debate, because Librix uses the HF technology and customers are very skeptical concerning RFID solutions because of this debate and it could pose problems for the introduction of Librix.

4.3.5 Ecological influences

It is hard to point out ecological influences which could impact the introduction of any LMS into the Turkish market. This research could mention the climate, the nature and the care for the nature but these subjects are irrelevant in this research. The only matter which could be interesting are the laws restricting production methods of for example the RFID chips, but most of the LMS solutions are software and therefore also these production restrictions from an ecological point of view have minimum influence on the outcome of the research problem and therefore will not be analyzed.

4.3.6 Political

Turkey from a political point of view is developed a lot the past years which is reflected by the economical and also technological improvements made. In this research context, the most important political restriction for the future is that the Turkish government tries to encourage development, production and consumption of goods within the Turkish borders. This is done by investing in education, infrastructure and R&D developments (<http://blog.milliyet.com.tr>). The government tries to encourage this to cut out the dependence of Turkey to foreign product and so stimulating its own economy. This is also reflected by the continuously improving infrastructure with the third Bosphorus bridge as a highlight in the infrastructural improvements (<http://www.imarbilgileri.com>). For the foreign products offered in Turkey, this means that the Turkish market is attractive at this moment, but this could change in the future. Looking at the FFM (Porter, 2008) illustrates the development of Turkey. The competitors in the LMS market show that the first solutions made available were foreign solutions. Millenium and 3M for example, which were active since mid-nineties, while the Turkish solutions popped up in 2001 (Yordam) and 2007 (Ankaref). This example is given only to demonstrate that the political measures taken are paying off and that Turkey has began the catching up with the developed countries, also from a LMS point of view.

4.3.7. Conclusion

The population spreading within Turkey reveals that the most interesting part of Turkey now is the Eastern part for LMS products. This is because of the potential increase of public library usage in the future, which correlated with the economical development of Turkey. The whole economical situation in Turkey encourages FDI because of the growth of the Turkish market and the potential that it has. However the negative currency rates for foreigners and illiteracy rate of the country makes it for foreign companies which offer LMS products very hard to succeed. Furthermore there is a large gap between West and East Turkey. Eastern part of Turkey lags behind in the social environment, inadequate educational facilities and the Kurdish language as first language, while the potential of this part of the country is larger than the Western part. This is mainly caused by the current solutions present at potential customers and the high switching costs. The most notable findings concerning political influences on the introduction of Librix, is that Librix is a foreign product. The nationalism (preference of consumers to choose for home made products) and the encouragement of the government to develop,

produce and consume the products within the Turkish borders can cause serious problems for any foreign company to succeed in Turkey. Furthermore the HF and UHF debate will pose problems with the introduction of Librix in Turkey.

The goal of the DESTEP analyses of this paper was to answer the second research question which concentrates on the relevant external influences in the introduction of Librix. All the findings summarized above point to the direction that the introducing any LMS in Turkey could be very promising and that there are several opportunities which are caused by the economical development and the social development of Turkey. However there are numerous threats in the context of Librix, which are most likely caused by the fact that the solution is foreign. The introduction of foreign products in general, due to currency issues and social/cultural/political resistance will make it harder for Librix to get a foothold in the Turkish market.

4.4 Customers data

This paragraph elaborates on the second important attribute in gaining competitive advantage through customer value propositions (Anderson et al, 2006). The previous two paragraphs of this chapter focused on describing and discovering interesting market data, where this chapter fills in the customers data. There is a clear distinction made in the current customer findings in the Netherlands and the findings at potential customers in Turkey. The data obtained from current Dutch customers primarily served as a reference in the way Librix is currently marketed in marketing mix terms, while the data gathered from potential customers served as input to compare and adapt the current marketing strategy to fit the Turkish market.

4.4.1 Current customers data

Visiting the current customers of Nedap in the Netherlands has given this research a lot of input. Mainly because the interviews revealed that the expectations of the customers and the perceived expectations by Nedap differ (Woodruff, 1997). This is in line with the literature review mentioned in the second chapter of this report and seems to be a usual occurrence. This research focuses on the differences between the perceived expectation between the current Dutch and potential Turkish customers and therefore will not elaborate on this matter, but will rather mention the most interesting findings from this point of view.

The registration process

The current registration process within the Dutch focus market is advanced and is fully automated. There is minimum human interference and the error margin is close to zero according to the director of the Doetinchem library. The users of the libraries can manage the whole check out and bring back process by them self. When customers want to borrow material he/she can pick it out and go to the self check desk, where this person puts his library card on this desk where after this desk registers the book as borrowed by the owner of the card. As for the returning process, the user just puts the book in the auto sorter, which scans the HF tag in the book and notes that the user has brought the book back. The HF tag, holding data such as book genre, enables that the book is automatically sorted by a sorting

machine which is connected to the bring back machine (www.nedaplibrix.com). This is noted as the most important feature of Librix according to the current customers, because it saves the librarians a lot of time sorting the books. The only human interference in this whole process is that the librarians pick up the boxes after the sorting machine is done and put the books on the shelves to make the available for the public again. The most common problem is that the HF tag containing information is incorrect, this causes the auto sorting machine to sort the book incorrectly. But this information concerning the sorting is provided by the libraries themselves and therefore cannot be accounted to Librix (www.nedaplibrix.com).

The added value of Librix

It is very interesting that the customers did not mention the security or the control panel (bibliocheck4) which offers libraries an easy interface to manage all their library processes such as staffing and absenteeism as added value but merely focused on efficiency. This is remarkable because Nedap promotes Librix as a complete solution and mentions security and this control for example on their main web page (www.nedaplibrix.com). It seems that the literature concerning value propositions by Woodruff (1997) and Anderson et al (2006) is correct and it is reflected by this example. The added value of Librix for the current customers in this matter is efficiency, while Nedap is aware of this but promotes Librix with other attributes as well. This is not necessary in this case according to the current customers and they should rather focus and built on efficiency, reliability and the uptime of the product. In terms of the value proposition literature Nedap lists all the benefits of the products (www.nedaplibrix.com), while the right method in this case should be resonating focus, where only the most important points of the product which matter to customers are listed (Anderson, Narus & van Rossum, 2006). Efficiency is mentioned by all the customers as the most important attribute because of the governmental pressure in the Netherlands to work more efficiently. At this moment the about 60% of the university and 80% of the public library incomes are funded by the government according to the director of the Doetinchem library. With the eye on further cuts on funding in the future, the current customers think that Nedap should primarily focus on the efficiency by minimizing human interference. This way the amount of personnel can be reduced in the future.

Another very interesting and favorable point in comparison to the competitors is the close relationship Nedap has with its customers. The current customers mentioned that Nedap is very innovative because they always think ahead and propose ideas to their current customers. The ideas are worked out of are reformulated if necessary in collaboration with customers, which binds the customers to the supplier and gives them a feeling of ownership. This is very important first of all from a product development point of view, but also from a product selling point of view.

The importance of references

It is very clear that third party influences are very important in the market where Librix operates. As stated above the government for example plays a big indirect role in the choice for a solution. Indirect because the government provides a big part of the financial side of funding a solution, but cannot force a library or university to choose for a certain solution according to the University of Twente library.

Furthermore the current customers noted that they had seen the promotional material that is available on the internet and the leaflets, but do not think this is enough to encourage potential customers to get interested in Librix. They are of opinion that Nedap should instead focus on building on their strong relationship with their current customers so that they can be a reference for them. Being able to present success stories with the help of current customers is a great way to get potential customers interested according to the director of the Doetinchem library. The current customers mentioned that they were sometimes approached by potential customers to give their opinion and to take a look at the benefits Librix provides.

Unique Selling point of Librix

Librix can improve the efficiency, security, registration and administration within a library but the company mainly promotes itself by demonstrating the efficiency that can be gained. This point was discussed during the interviews at the current customers to determine whether the perceived and actually received value in terms of customer value propositions (Woodruff, 1997) is the same. The results can be called interesting, because the current customers call the efficiency, reliability and uptime of the products and services of Librix as the most important attributes. Furthermore it seems that the Dutch customers do not consider the security side of Librix as a RFID solution as an added value. The security chips and gates within one solution are convenient, but it does not have any effect on the choice for a LMS solution according to current customers. Another important unique selling point is the interaction of Nedap with its potential customers. The respondents mentioned that Nedap really gives the Library managers the feeling that they are a part of the product, because of the tight interaction concerning product development and smooth communication.

Promotional material

The promotional material that is used by Nedap to promote Librix consists of informative flyers and informative books with an detailed description of Librix (www.nedaplibrix.com). These flyers are not very important according to current customers and Nedap should rather focus on the seminars they already organize and their close connection with their customers. References in the library market are essential and the library community in the Netherlands is in close contact with each other. Therefore having references is a must in order to be successful.

4.4.2 Potential customers data

The potential customers in Turkey are in a whole different setting than the current customers in the Netherlands. It is important to discover any differences in preferences and customer wishes so that Arsis can promote and use these discoveries to their advantage to promote Librix in Turkey. This paragraph focuses on the most important findings found during the interviews at the potential customers in Turkey.

General knowledge level in Turkey

The general knowledge regarding RFID among the Turkish library is very low, which was confirmed during the interviews. When the library executives were asked to talk about RFID solutions available for the Turkish market, most of them referred to the HF and UHF debate which is present in Turkey and

were unable to really discuss the RFID LMS products available in the market. Most libraries were able to thick paperwork (research), but they were unable to mention any findings and/or discuss any statements made concerning this subject. This demonstrates that there is awareness in the Turkish LMS market concerning RFID, but somehow library executives were not interested enough to investigate the matter on their own. Again as mentioned during the technology dimension of the DESTEP analyses, standard and UHF LMS solutions operate as shown in figure 5, whereas the HF (RFID) LMS operate as presented in figure 6. The Turkish customers firstly need to be educated from a neutral source, since resistance is recognized if organizations promote their LMS product. To take the resistance away concerning HF and UHF technology the LMS knowledge in general should be increased to recognize the added value and create interest in the products offered.

Current technology for the primary process in Turkish libraries

It is noticeable that the technology used primarily in Turkish libraries is the model that is described in figure 5 (Appendix C). This model describes the UHF and standard data model of the LMS technologies. The main difference between the UHF and “classic” model are the RFID tags used in books. The classic model uses magnetic bands which can only be switched on/off, so that the alarm at the security gates will sound if the band is not deactivated by the library personnel during the check-out.

Two of the most named competitors during the interviews are Millenium and Yordam (Appendix C), both database types LMS as described within the FFM of Porter (2008) and they both make use of the data model represented by figure 5. During the initial interviews at Arsis, two other LMS solutions were mentioned Ankaref and 3M, but it seems that these two LMS are not really present in the market. The sorters, security gates and barcodes of books are mostly from 3M while the databases are from Millenium and Yordam (Appendix C). This is awkward because the libraries could choose for the database and all the other products from the same supplier which is 3M in this example, which could suppress the costs because of collectivity reductions. The only explaining reason for the libraries choosing for Yordam and Millenium is that these two products were available before 3M had a LMS solution. As demonstrated in the FFM (Porter, 2008) the switching costs are relatively high, this is why the libraries initially chose for this construction to purchase the LMS solution from Yordam or Millenium and the complementary products from 3M.

Another remarkable point is that some of the libraries chose for Millenium while the others chose for Yordam (Appendix C). The main point of difference is that Millenium is a more mature product with more additional options, but also with a higher price. Millenium is the oldest solution present operating successfully in the Turkish LMS market. The libraries which chose Yordam, did this mainly because of the favorable price according to these interviews.

ANKOS

In the year 2000 ANKOS as an organization was established with the goal of sharing scientific research databases such as JSTOR. Purchasing these databases as a collective organization makes the prices more favorable and this was the initial motive of a lot of libraries to join. The organization began with 12 university libraries where the number of libraries participating in the organization is 163 nowadays.

These libraries are not exclusively university libraries but also larger public libraries (<http://www.ankos.gen.tr>).

The ANKOS organization holds annual meetings in which the participants discuss the direction of the organization and other important issues. Another interesting finding is that these meetings are used by LMS suppliers to promote their products, which was confirmed during the interview at Arsis. ANKOS gives LMS suppliers the opportunity to promote their products in a seminar kind of form. In the previous meeting, organizations using the HF and UHF technology participated and both sides were forced to not only elaborate on the positive aspects of their technology but also the negative due to the presence of their rivals. An interesting point was that the name of Arsis and/or Librix was not mentioned a single time during the interviews when asked for the customers knowledge concerning LMS RFID solutions. In terms of Johnston & Lewin (1996), the ANKOS organization could be seen as the gatekeeper. The influence of this organization on the libraries in Turkey is so large, that convincing and promoting your products by making use of the meetings of this organization could play a large role in succeeding in the Turkish library market. All the interviewed libraries responded that if a solution has the backing of the ANKOS organization, the introduction and success of that certain solution will have a high probability.

Purchasing motives and important attributes

The purchasing motives of the potential customers are very different than the motives of the current Dutch customers. The most important attribute of Librix according to its supplier is efficiency, as is reflected by the promotional material used by Nedap Librix and the current customers interviews. When confronted with this point the potential customers in Turkey reacted non-confirming. All libraries mentioned efficiency as irrelevant in the consideration of LMS products. This is very odd because the whole Dutch marketing concept is based on this principle (www.nedaplibrix.com). Efficiency is important for Dutch libraries because the employer is the government and the employees within the libraries are paid by the government, as was found during the interviews in the Netherlands. With the Dutch governmental savings it is important that LMS products are as much automated as possible to cut out the human interference and to save human labor thus indirectly saving financial resources. The Turkish mentality is different also because of the relatively low labor prices. Most of the libraries in Turkey use students or other cheap labor forces to fill in the gap that the RFID solution could cover. If they were to invest in a new RFID LMS, they would need a big amount of money and with the relative low labor prices, the costs do not outweigh the benefits on a short term. Therefore the Turkish libraries do not see efficiency as an important purchasing point.

The Turkish libraries tend to focus more on the financial and service side of the offering. The most important aspect in considering a LMS solution according to the respondents was: (1) the price, (2) service level and (3) references. The price of the LMS solution is the most important purchasing motive mentioned during the interviews. The libraries have their own financial budget and investing in a new solution requires a large amount of financial resources, especially with foreign solutions such as Librix in this case. It was made clear that investing in foreign solutions in Turkey will impact the financial house holding at least twice as hard due to the currency rates concerning the Turkish Lira and Euro in this case. Also, the annual management cost should not be too high according to the potential customers.

The service level, which is second on the list as most important attribute in consideration of a LMS, refers to the service that a company provides after the deal is completed. It was very interesting to notice that most of the respondents were very skeptical concerning new offerings and especially foreign offerings, because of the experiences from the past. There were firms in the past which offered similar solutions to the libraries. These firms sold but never looked back at the libraries when they experienced any form of difficulty. Therefore most of the libraries which participated in this research also tend to prefer larger well known supplier, which brings the third most mentioned point references to the surface. As described above, the libraries in Turkey want to be able to see a good list of well-known references so they know for sure that the company offering the LMS product will not sell the product in a transaction based manner (Kotler, 2009). Lastly, an important point was that the products offered must be available in the Turkish language and that the libraries generally prefer Turkish products above foreign.

The most important motive for switching to LMS in early 2000 in general was the ease that a database brings, according to the interview respondents. This is because all the information needed can be found in a few clicks on the computer. In the old situation libraries had ten excel sheets for example holding all the information. Working this way is very difficult because of the administrative issues this brings, working with so many different files for example. The LMS solutions should be easy to access, manage and work with according to the Turkish libraries to be able to properly organize and manage libraries according to the interview respondents in Turkey. In the RFID case, the solution should bring clear advantages over the current database type of technology used.

Considering RFID LMS as an alternative

Most of the libraries purchased their LMS system early 2000 or even before that. RFID is a relative new technology that is emerging in the Turkish LMS market. The problem according to the respondents in this research is that the added value (the efficiency) and the security purposes of RFID LMS do not outclass the current database type LMS in such a way that the libraries in Turkey are really convinced to invest in such a solution according to the respondents. The technology is also relatively new and the costs do not outweigh the benefits according to the potential customers. Also, with the HF and UHF debate as described in the DESTEP analyses, Turkish libraries are fearful to invest in one of the two technologies. Their fear is based on making the wrong choice by investing in the technology which will not become the world standard. If the world standard will stay at HF and the Turkish libraries choose for UHF or vice versa, they will have made an investment which most likely will be useless in the future. The continuity of the company offering that solution will be doubtful because the mainstream of the potential customers will make a choice which conforms to the world standard by then.

Another point is that the library employees in Turkey are protected by the Turkish government. Protected from a job security perspective, libraries cannot fire any of their employees because these jobs are backed by the government. This means that most of the library personnel work at one library for the rest of their lives. The government ensures the “come inside stay inside” principle, which is described above. Introducing RFID would mean that handlings which required labor, will be replaced by

automation, which will cause a reduction in the need for personnel. This is a very positive point in Dutch libraries, but in Turkey this would be a major concern on the short term because the libraries are not allowed to “fire” employees.

Globalization is also increasing within the world libraries, where they share knowledge through for example the internet. Choosing for the wrong type of LMS could make this collaboration also more difficult. This is also a reason why the Turkish potential customers want to wait before they make their choice, because switching to RFID in this stage is not a must in their view. Another point of criticism from the potential customers point of view is the amount of material available within libraries. The overall circulation rate of material within the Turkish libraries is also a lot less. This is another example of why the Turkish libraries could wait in switching to RFID LMS because the main added value based on efficiency improvements, are not valid in Turkey.

Promoting LMS in Turkey

The promotional techniques used by Librix are to make appointments and trying to sell the product in a personal conversation, according to the interview at Arsis. Arsis already organized seminars and meetings to create know-how concerning the added value of RFID in libraries, but these interviews did not reflect confirmedly because none of the respondents mentioned Librix as an LMS during the interviews. The general knowledge as described above is low among the potential customers regarding the different types of RFID LMS. The respondents were asked to answer the question which asks for the right promotional techniques in Turkey, to promote new LMS solutions in the Turkey. The mainstream answer was that in order to interest the libraries, the general knowledge concluded that the knowledge concerning RFID should be increased among the potential customers. Furthermore as mentioned earlier promoting such products by flyers and advertorials is not the proper method according to current Dutch customers. The potential customers group is very tightly related as is reflected by the collaboration within Ankos for example. Therefore the right promotional methods should be based on increasing the general knowledge, decrease the resistance and finally point out the most important value which the LMS solution can add based on these interview findings in personal sales conversations.

4.4.3 Conclusion

The most notable and important customer findings at the current customers in the Netherlands is that the received added value consist of the efficiency Librix causes, that the solution is all in one and that customers are encouraged to try the product because of the large amount of references. The efficiency issue is elaborated on by the Dutch government, which encourages a more efficient way of working. The whole promotional material used in the Netherlands is less relevant, according to the current customers and a demonstration and seminars are more likely to bring in new customers.

The Turkish potential customers have a very different state of mind and there is a large gap between the received added value of Librix according to Dutch standards, and the perceived added value of Turkish potential customers in terms of Anderson et al (2006). The most important findings at the potential customers are the three key attributes in considering the purchase of any LMS solution, which are the price, service level and the presence of references. The whole promotional/added value concept of

efficiency is rejected in Turkey. The lack of knowledge among potential concerning RFID, the high switching costs and the HF/UHF debate make it for Librix hard to gain a foothold in the Turkish market it seems. The overall tightness of the potential customers in terms of relationships emphasizes the presence of references within the Turkish market.

The interviews held in the Netherlands and Turkey had the goal of filling in the customers data dimension in order to come up with value propositions to gain competitive advantage (Anderston et al, 2006). The third research question of this report which had the goal of reporting the most important customer data findings is linked to the results of this paragraph. Overall it can be said that whole perceived and received customers value concerning Librix is very different among the Dutch and Turkish customers. It is therefore very important to take the preferences of the Turkish customers into consideration with the introduction of Librix in Turkey. If these findings are neglected and the current product Librix in marketing mix terms is introduced within Turkey, a high probability of failure will be present. In terms of the value proposition literature, the obtained data in this paragraph is an essential part of creating competitive advantage because it shows shortcomings in the current ways of presenting Librix in Turkey.

4.5 Marketing Mix

As stated in the second chapter of this report, the marketing mix is used to translate the findings of the previous paragraphs into concrete marketing adaptations. The offering Librix should fit the Turkish market and therefore it should match the wishes and preferences of the Turkish market as mentioned in the customer value proposition literature (Woodruff, 1997). The four factors; price, product, place and promotion (Borden, 1964) are the main subjects concerning the positioning of the product in the market. The findings of the interviews were connected to these subjects so that Arsis has an idea to what extent the current offering fits the market. These statements made in the marketing mix were used as input to come up with recommendations in the next chapter in order to create competitive advantage.

4.5.1 Product

Librix is an all in one solution which takes care of the whole primary process of libraries. The interview findings in the previous paragraph demonstrate that the product faces challenges in order to successfully enter the Turkish market. The most important attributes for customers in the consideration of any LMS, is the price, level of service and the presence of references. The price will be discussed in the next subject of the marketing mix with the similar name, but the level of service is a part of the complete product.

The Turkish customers are very keen on after sales service, mainly because of past organizations who failed to deliver satisfaction on this matter, as is reflected by the interview findings. Arsis is a large company, which is known in whole Turkey in the security services sector (www.arsis.com.tr). Their decision to enter the library market could be very profitable, with the amount of potential customers and the missing presence of RFID LMS in the Turkish library market. The only problem is that there is some resistance concerning RFID. To take out the first resistance, the potential lack of after sales support, Arsis could present references from other product sectors. There are currently no running modules of Librix in Turkey, Arsis is busy at this moment to set those modules up in two libraries (www.arsis.com.tr).

The most important point were Librix differentiates from the rest of the competitors is the technology it uses. The HF RFID technology as presented in figure 6, has the advantage of being an all in one solution and the world standard. The paragraphs before however describe that the potential customers are skeptical about the technology. Another interesting point to mention in the differentiation of Librix is the customer support available. Arsis is a Turkish company which is based in Istanbul and is known for its security solution all over Turkey. They could use these references to demonstrate that Arsis is a company which can be trusted and collaborated with on the long term (www.arsis.com.tr). As found during the interviews at potential customers, the service level is the second most important attribute for customers to consider offerings from companies. In terms of marketing a relationship focused selling process is desired by the Turkish potential customers. The customers in a business to business context like this one, desire a relation in which they interact, collaborate and help the selling company in their goal of succeeding, while the company on the other hand really appreciates values and collaborates

tightly with the customer (Hut & Speh, 2009). Arsis can also offer training and can demonstrate that Nedap is continuously innovating Librix, which can be verified by foreign references. Not the first hand selling but the loyalty and the relationship focused solutions should be the most important points to keep in mind (Hut & Speh, 2009). This is because Arsis will gain the largest amount of profit by keeping customers loyal and charging annual fees, instead of selling the product.

The modularity of Librix in terms of Anand & Daft (2007) is not very known. 3M for example is a similar organization which offers a database type LMS but is rather known in Turkey for its sorters and security gates within libraries. Arsis could choose for splitting the products up in library security, efficiency and sorting machines for example. This could encourage libraries to consider parts of Librix into their organization while they do not seem to consider a complete RFID solution at this moment. This is in line with the theory of Anand & Daft (2007), which suggest that competitive advantage can be gained by focusing and recombining modular products so that they fit the targeted market. Arsis could for example focus on the library security on a short term. Introducing parts of Librix could also create brand knowledge among the potential customers and could provide a point of difference in the future, when the UHF and HF debate (according to Turkish potential customers) is concluded. The potential customers are very skeptical because of the two different types of RFID as discussed earlier.

4.5.2 Price

The interviews among the customers in Turkey demonstrated that the price of an offering is the second most important attribute in considering any type of solution. This is mainly because the primary group of potential customers in Turkey is the bigger libraries, which are mostly university libraries. These university libraries have their own budget and need to invest for themselves in these solutions, while this situation in Dutch public libraries for example is different as discussed before. An additional problem with any complete RFID solution is that the price compared to traditional database LMS is very high, as is found during the interviews in Turkey. These are all factors which should be considered by Arsis and it seems to be an idea to divide the product into modules based on their purpose, as mentioned in the previous paragraph and in the theory of Anand & Daft (2007).

Initially four competitors were mentioned by Arsis during the intake interviews, while the potential Librix customers recognized just two (Appendix C). Millenium and Yordam are the two main competitors on the database perspective, while 3M completes the LMS with the sorting and security of the library (Appendix C). As described earlier Yordam is a product from Turkish origins while Millenium is American. According to the findings in this research, Turkish customers should prefer Yordam over Millenium from various points of view, the price, the products is from Turkish origins and the language barrier (www.cia.gov). This is true but in this case a lot of libraries chose for Millenium because this American product was one of the first developed LMS solution available, Yordam was not available back in that time. The libraries that did not want to invest such a huge sum back in the days, waited and Yordam emerged a few years later for a relative cheaper price. It was impossible to exactly determine the price differences between these two offering, but in general it was found during the interviews that Yordam (Around 10.000 USD) was about 50% cheaper than Millenium. With another 10.000 USD investment in the security gates and the sorters brings the total price of a database type LMS solution in Turkey at a

total of maximum 25.000 USD with a 5.000 USD margin.

The RFID solutions are not discussed yet from the price perspective of the marketing mix. The interviews made clear that a complete RFID solution is available for around 100.000 TL or 60.000 USD including the tagging of approximately 150.000 books. The proposal made was concerning the UHF technology, so the costs for the HF tags and thus for a solution such as Librix is even a little bit higher. With such differences in the prices between the current database type LMS and the complete RFID LMS and the potential customers wishes (low prices), it seems that this perspective of the marketing mix is also negative for the introduction of Librix into Turkey. However if the HF/UHF debate is cleared out and the potential customers are really convinced of the added value, the scales could be tipped in the favor of RFID in the future. The following calculation shows estimates of the investment needed for libraries to switch from their current LMS to RFID LMS, where averages are taken.

	Standard LMS	RFID LMS	Total
Average price purchase date	Already present (25.000 USD)	60.000 USD (Year 2012)	60.000 USD
Annual fees	5000 USD	5000 USD	10.000 USD
Unusable third party material	10.000 USD		10.000 USD
Total	15.000 USD	65.000 USD	80.000 USD

Table 8. Average investment price for RFID LMS, based on financial data obtained by interviews

The table above summarized the most important aspect of libraries for not switching to RFID. The total sum of switching costs is 80.000 USD, which is a very large investment for Turkish libraries. The return of investment which is based on efficiency improvements is calculated below. The average amount of employees in a university library is 15, from which 6 FTE are functional workers which are responsible for the daily production and work for 800 TL (450 USD). After the introduction of Librix at least a 50% efficiency is guaranteed, which means that 3 FTE workers are needed after the introduction.

	Current costs annually	Investment In RFID	Return of investment
Employees before RFID	32.400 USD		
Employees after RFID	16.200 USD		
Net profit by RFID annually	16.200 USD	80.000 USD	4,93 %

Table 9. Return of Investment estimates based on interview data

This table shows that in it takes approximately 5 years to win back your investment made in the RFID solution. This is a very long term in the eyes of library directors, which are most likely think on short term. Furthermore the respondents of the interviews revealed that it was near to impossible to get approval for an investment of 80.000 USD, which is approximately 200.000 USD while the government tries to stimulate creating work. Therefore it seems that Librix has a great disadvantage from a price point of view.

4.5.3 Place

The headquarters of Arsis is located in Istanbul and the company has also offices in Ankara which is the capital of Turkey and Izmir (www.arsis.com.tr). All the summed up locations are in the western part of Turkey. These findings are logical, because the DESTEP analyses demonstrated that there is a large gap between east and west Turkey, as found during the DESTEP analyses. Arsis is located very strategically also from the LMS perspective, because most of the customers which qualify for RFID LMS such as Librix are university libraries. Most of these libraries are located in the western part of Turkey. However the presence of an office in Ankara, which is geographically near the central point of Turkey could provide Arsis easy access to western Turkey, which is developing rapidly according to the findings in the DESTEP analyses. In the future public libraries all over Turkey could become interested in LMS solutions and the presence of Arsis in Ankara could make it easier for customers to choose for them. Furthermore Arsis selectively tries to distribute the product, because it recognizes the fact that primarily university libraries are its targeted customers group. Arsis tries to offer the product with this knowledge in the back of their head. None of their scarce resources are wasted this way because public libraries as mentioned before are not fitting the profile as potential customers.

4.5.4 Promotion

The communication mix which consists advertising, direct marketing, personal selling, public relations and sales promotion are ways in promoting a product in a new market with the aim of presenting information and creating demand (Kotler, 2009). In the case of Librix most of these methods do not fit this purpose as is found during the interviews at potential customers. The potential customers referred in the interviews to demonstrations of the product and the presence of references as the most important attributes as a promotional method for LMS product to succeed. The promotional methods used at this moment by Arsis are to have personal conversations with university library executives. The organization is aware of the lack of knowledge concerning RFID at the potential customers, so it offered seminar like meetings in the past to acknowledge the added value of Librix compared to traditional LMS databases. As can be concluded by the interview findings, none of these methods seem to have worked because the knowledge regarding RFID is still minimal and none of the respondents mentioned Arsis as a LMS supplier. Furthermore as acknowledged by the current but also potential customers advertising or direct marketing are not the methods to create demand. The interview respondents replied that they do not see any positive side about promoting by these methods, because products such as these need to be demonstrated in order to create interest. The respondents think that this form of promotion will only built on the resistance present at potential customers because of “another great solution”, while the value of that solution has yet to be proved.

Sales promotion and public relations

First of all as acknowledged several times during this report having references and a brand name is the one of the keys in order to have success in the Turkish market. So promoting Librix at one or two libraries for a relative favorable price could be a solution in order to obtain references in Turkey. In terms of the communication mix this type of method can be classified as sales promotion, where Arsis offers specific targeted customers incentives in order to try their product (Kotler, 2009). Collaborating and working closely with these references could provide competitive advantage because Arsis can demonstrate that the service level (after sales) of the company (second most important attribute for customers considering a solution) is better than what the libraries experienced in the old scenarios. Obtaining one or two university libraries as a customer will also have an impact from the public relations side of the promotional techniques. These universities most likely will be a part of the ANKOS in which they will generate free and a high credible form (references) of promotion.

Personal conversations

Personal meetings with library CEO's and seminars is a way to create knowhow among potential customers, but the current path that Arsis followed clearly did not fulfill its purpose due to the current resistance concerning RFID for example. In a good personal selling organization the employee selling the product can learn about the problems customers have, negotiate sales, built a long term relationship and adapting the offering to fit that specific customer (Kotler, 2009). The method used by Arsis mainly focused on selling the product relying on the strengths of Librix, which are clearly not acknowledged in Turkey. The types of personal selling can be grouped into two types, transaction focused and relationship focused personal selling. The findings in the interviews and the type of good suggest that a relationship focused approach fits this specific situation (Ingram et al, 2007). The consultative selling approach is the most appropriate approach, because this approach gives the customer a list a specific benefits a product can bring to that specific customer, which built a relationship on a long term by collaborating together to solve problems (Ingram et al, 2007). The interviews found that these exact mentioned attributes of consultative selling fit the purpose of Arsis.

First of all before moving to the consultative selling approach, an important point to mention is that Arsis should consider including people not related to the company in their promotion. A very important point found during the interviews is that there is some resistances from the potential customers concerning "another" informational meeting were representatives explain how beautiful their LMS solution is. Arsis should use other resources which could represent the company in a positive way, while these resources should not be related to the company.

The most important point of selling in a consultative way is to hit the most important valued attributes of the customers. This can be done by elaborating on the findings of the interviews. An important problem within the Turkish library market is the HF/UHF debate for example. Potential customers are not aware of the fact that that HF is an international standard at this moment and Arsis could use this argumentation during the personal selling process for example (Ingram et al, 2007). The potential customers focus too much on the price aspect and therefore are not really keen in getting knowledge

concerning RFID. A proper method in getting creating interest among the potential customers could be the annual ANKOS meeting. Arsis could promote Librix during this meeting because in the past, seminars concerning RFID in general were held but were also not successful. The recommendations for Arsis concerning the promotional techniques which elaborates on these results are summed up in the sixth chapter of this report.

4.5.5 Conclusion

First of all the most important adaptations on the product aspect is to elaborate on the service level Arsis can provide, make use of the modularity of the product and elaborate on the strengths of the HF technology Librix uses. As found during the data collection phase Librix will fit the targeted market this way. The service is linked to the consultative way of selling the product which is discussed at the promotion paragraph of the marketing mix, where collaboration and long term relationships are centralized which are valued by the Turkish customers.

The price of the offering is the most important attribute according to the interviews in customers considering an LMS solution. The problem of Librix from this perspective is that the solution is developed in the Netherlands and uses the Euro as currency in selling the product. The overall price of RFID solutions are relatively high compared to incumbent solutions. Therefore Arsis should strive to convince and really demonstrate the added value of Librix in order to succeed.

Arsis is located in the three major cities in Turkey: Istanbul, Izmir and Ankara. The organization should not experience problems from a distributive point of view. The main benefit of being present in these cities is the geographically favorable positioning of these cities with the eye on the development of Eastern Turkey in the Future. The most important promotional adaptations which should be made by Arsis is to make use of Sales promotions and building public relations in terms of the communication mix (Kotler, 2009). This way references could be obtained which are very valuable in gaining competitive advantage within Turkey. Personal selling conversations in the form of consultative selling (Ingram et al, 2007), is the proper method in Turkey to succeed.

The fourth research question of this report focused on answering the question concerning marketing strategy adaptations to be made, by making use of the marketing mix. The four p's which are discussed above are the guidelines this report used to convert the data obtained from the market and customers into usable results, which are elaborated on in the recommendations chapter. The sixth chapter of this report will formulate recommendations based on the strategy adaptations needed to succeed in Turkey, found during the analyses in this chapter.

5. Conclusion

The previous chapter focused on reporting remarkable results and reflecting on these results from the marketing mix perspective, so that the differences in value propositions would become visible. This chapter will elaborate on the former by first of all answering the research questions, translating the findings to visible results for Arsis and at last comparing the findings to the scientific literature used and reflecting on the research process.

5.1 Answering the research problem

It is clear that the competitive landscape of Librix in Turkey is different than initially expected. The RFID technology and efficiency are the main focus point at the current Dutch customers and the Dutch market, while other types of technologies are used in Turkey. It is clear that the Turkish targeted customers are currently preferring database type LMS above the RFID solutions, with Yordam and Millenium dominating the market. It is clear that a distinction must be made firstly in standard database type LMS and HF RFID based LMS as is demonstrated in figure 5, secondly within the RFID LMS there is a contest between HF and UHF technology, which causes a great resistance from the customers in possibly switching to RFID LMS. Other important competitors in this research were Ankaref which offers UHF based RFID (Figure 6) and 3M which is known for its complementary services such as security gates and sorters (appendix C). The problem of the targeted market is that the switching costs for buyers are relatively high, the tight community and loyalty toward current suppliers (Cavusgil et al, 2003) and the relative stable market from potential customers perspective makes the Turkish focus market hard to enter and to succeed.

With the current competitive landscape clear, the next step is to focus on the external influences. The overall development of Turkey the past years (<http://www.forbes.com>), makes it interesting for foreign organizations. At this moment, 172 university libraries qualify as potential customers, without the consideration of public libraries. This is because the public libraries are too small in size and not used by the public as in European countries (<http://gelecegiokuyankalemler.blogcu.com>). But linking the development of Turkey not only economically but also from a social perspective could make interest of the population in public libraries to grow due to social development. Furthermore a big potential market lies in Eastern Turkey, which is relatively untouched by the LMS solutions currently available. The political measures taken such as building the third Bosphorus Bridge and investing in social services makes the external influences to point in a positive direction from an RFID point of view.

However the most important customers findings of this report are that the LMS market is a closed market with the customers loyal to their current suppliers, also due to the high switching costs. Elaborating on this research and focusing on relationship marketing for new gained customers could be a very interesting research topic within this context. Another interesting point is that the respondents all seem to share the same opinion concerning RFID and other interview subject, this is mainly caused by ANKOS. Also Hoskisson et al (2000) found that the social influences in emerging economies are relatively strong, this is reflected by the previous sentence. The efficiency based promotion in the Netherlands is not applicable to that of Turkey, because of the whole different customer preferences. The HF and UHF

debate, the relatively high costs of RFID to traditional solutions, the lack of references in Turkey, lack of basis knowledge concerning RFID LMS in general and the loyalty to current suppliers will make it hard for Librix to succeed in Turkey. The research of Tidd (2001) mentions external linkages for companies to be innovative and gain competitive advantage. Finding ANKOS as an organization in which all the customers collaborate, the relation of Arsis with Nedap which is tight and the customers preferences will be valuable information in order to innovate and keep in front of the customers (Tidd, 2001). The only problem in terms of Tidd (2001) is that Librix is a product of Nedap, therefore Arsis will be unable to make decisions on its own on the product development perspective.

The results found at the current Dutch and potential Turkish customers makes it clear that value propositions concerning both markets should be very different. The main differences between Western-European and East-European countries in general are that the West-European countries lag behind in development. Turkey as an East-European country is developing from all perspectives as found in the DESTEP analyses, but still cannot match the West-European countries such as the Netherlands. This difference is also reflected by the interview findings, where Dutch customers prefer efficiency, reliability and uptime the Turkish customers mainly focus on the price attribute. The logic of any investment is only calculated on the short term in Turkey, while the Dutch customers are able to look further on the long term. This is a fact which reflects the economical, social and governmental situation of both countries. In general customers in developed economies are prepared to pay the full price, if they see the added value of a solution. But in Turkey, the price must be low whatever the added value. Furthermore the resistance concerning foreign products is a lot larger in Turkey than in the Netherlands. The prices of these offerings off course play its part in this due to the currency rates, but also the language barrier. This can also be caused by the fact that the Turkish people tend to be a bit more nationalistic, which is reflected by statements during the interview. The potential customers reacted to the question in considering foreign products with the statement that if there are Turkish products which could accomplish the same, they would prefer Turkish solutions.

This whole research points out that the current potential market is saturated due to the solutions currently present and used in this market, while the development of Turkey in general could provide a lot of opportunities from a RFID LMS perspective. The overall conclusion of this report is that the customer value propositions used in the Netherlands are not applicable in Turkey. The expectations, reactions and general knowledge concerning RFID LMS in general are very different than the Dutch market. The most important step in order to succeed is to first of all invest in educating the potential customers so that they are convinced of the added value of RFID LMS, secondly slowly introducing the solution and adjusting the marketing strategy used in the Netherlands to the preferences of the potential customers. The marketing mix demonstrates the need for adaptations on all aspects of this marketing model in order for Librix to fit the Turkish market. If Arsis will not create interest, remove the current resistance and apply the other findings in the marketing mix to Librix, there will be a high possibility to fail with the introduction of the product.

All the mentioned information above serves the purpose of answering the research problem stated below, which is also discussed in the first chapter.

“To what extent is the customer value proposition of Nedap in the Netherlands applicable for the Turkish market?”

The answer on this question is that the Dutch value propositions are not, or very limited applicable in the Turkish Market. All the information summed up above based on this research points to the direction that the customers in Turkey are very different in their preferences towards LMS. Furthermore the libraries in Turkey do not necessarily demand LMS because of their limited size and usage. The measure which need to be taken in order to bring Librix with success to Turkey, are discussed in the next paragraph.

5.2 Recommendations

The conclusion of this report is that a whole new concept of promoting the Librix in the Turkish market is needed, since the core elements used in the Netherlands do not apply for the current situation. Therefore some advice will be given in this chapter for Arsis based on the findings of all the models used in the previous chapter. These recommendations primarily focused on creating concrete usable results for the organization and therefore will be as specific and logically as possible. All the recommendations mentioned below should be applied in the order as listed below. This is because the order of these “solutions” are critical in first of all educating and removing resistance and finally leading to the actual sales of the product. The literature concerning relationship based transactions (Ingram et al, 2007) is in line with the concept used in this chapter.

Hiring a student to represent RFID in general

During the interviews of this report, it was noticed that most of the respondent first of all were interested in the background of this research, especially if there was any organization involved. During each interview it became clear that this question was asked because the libraries created some kind of resistance against “another” company representative which tells them how beneficial their solution is. The answers obtained for this research were very detailed and some of the respondents clearly mentioned that they prefer to obtain information from sources which are not related to any company. With this in the back of the head it is clear that it will be hard in order to inform and educate the targeted market about the added value of Librix specifically and any RFID LMS in general for the companies itself. Therefore a relative cheap solution could be to concentrate and built upon this research by hiring or finding a student who wants to do his/her thesis abroad as in this situation.

The best option is to formulate a concrete goal for the thesis such as; increasing the general knowledge among the potential customers of Librix. The specific demands from Arsis and wishes of the student can be discussed by them which creates a win-win situation for both. The student finishes his education while Arsis spreads knowledge concerning RFID LMS into the market relatively cheap. The assignment can be placed on Blackboard of the University of Twente, where most of the student looks when they

are looking for thesis opportunities. The student must have the intention of going abroad to Turkey Istanbul, where all facilities such as a place to stay can be arranged.

Splitting the Librix products & efficiency

During the investigation and information spreading of the student as described above, the product of Librix can be chunked into modules (Anand & Daft, 2007). The focus of Librix lies too much on the fact that it is a complete solution, where the potential customers in Turkey as described in the previous chapter choose for a database from Yordam for example while the security gates and check in/out machines are supplied by 3M. This reflects the potential of promoting not only Librix, but also the security and sorting machines which can supply.

Librix is the name given to the complete solution. This research has found that splitting the products and promoting them by this is better also for the understanding of the potential customers. Most libraries only give importance to the database of the solution, as is reflected by the current solutions used and the most important point mentioned during the interviews. The security side for example is relatively unimportant, while in general this is also a selling point of most RFID LMS offerings. Furthermore the added value regarding efficiency of Librix can be completely dropped. Arsis should rather concentrate on the accessibility of the database Librix, the easiness for users and employees to work with Librix, the service level that the organization can offer and the references that they have all over the world. Furthermore they should elaborate on the fact that the HF technology which Librix uses is a world standard and that the references which Nedap possesses are in fact also their references all over the world. The point mentioned here are the points which are perceived to be important next to the price as found during the interviews.

Using ANKOS to generate publicity

During the interviews it was found that the libraries collaborate in a high degree, which has resulted in setting up the ANKOS organization. The largest university libraries participate in this organization as reflected by the interview findings, for example most of the respondent shared the same vision concerning RFID. After informing the potential customers by making use of a student writing his thesis about RFID knowledge in Turkey and the splitting of the Librix products, ANKOS meetings could be arranged by Arsis to generate publicity. Publicity not in a way that again creates resistance, but more of an informational meeting. Arsis could elaborate on the information shared by the student and carefully introduce their modules to create interest. As mentioned earlier this can be easy done because the Librix solution is already modular, but not promoted this way. Rather all over the world Librix elaborates and built upon its image as a single integrated solution, while the Turkish market as reflected by the interview findings rather prefer product modules. The offerings should be brought very carefully so that the potential customers are not scared of the prices. During these meetings Arsis should try to convince the potential customers of the added value (efficiency, easiness to use, integrated solution, reliability, amount of worldwide references & service level of Arsis) of Librix. Furthermore they should elaborate on the fact that Librix is an internationally used product and that Arsis is cooperating with Nedap, also an internationally recognized organization. This way the resistance concerning the fear for the after sales service level will be reduced, because internationally known organizations are less likely to sell and

not look back to their customers. Also the references, the third most important point in considering any LMS is covered this way what only leaves the price of Librix at this point to be an obstacle for potential customers

Obtaining references

The general knowledge and publicity concerning RFID LMS and Librix especially is created by executing the thesis, focusing on the modularity of the product and using the ANKOS organization as a central point to build. This way the next step for Arsis could be to obtain local references, so that they can demonstrate the fact that Librix really works and that the RFID technology is superior in comparison to the standard LMS due to for example the integration of the solution. The most important attribute, the price however is not discussed until now.

Arsis has no running settings of Librix at this moment, but has agreed with two universities to set up the Librix management system within their library. The third most important point in considering LMS is having references, with the focus on references within Turkey. As found in this research the library scene is very tight and most of the library executives are working together also in the consideration of LMS solutions. A very logical and good solution for Arsis is to consider offering Librix at universities which are not using any LMS, for example in eastern Turkey. The price of Librix could be dropped in such a way that Arsis does not make any or a minimal profit. In return Arsis could ask these libraries to closely collaborate and participate on making Librix fit the Turkish market. The customers that will participate will be able to convince and promote the offering in a way which Arsis never could accomplish. This is due the commitment and trust within the university libraries but also due to the neutrality of these universities. If Librix for example is a product which does not realize what it promises, the potential customers will expect the using university libraries (their colleagues) to be honest about this because they do not have a direct linkage with the company. Furthermore the participating universities will have their library management system with the latest technology for a relative low price, while Arsis will gain a positive image among the university libraries and thus will have positive local references which are required in order to succeed. In terms of the communication mix Arsis will make use of sales promotions (Kotler, 2009) and a consultative selling method will be used to further expand their number of customers as described at the personal sales (Ingram et al, 2007).

Selling with personal sales

The general knowledge is increased by the student, the products are modular to fit the market, ANKOS is used to elaborate on the general knowledge and references are obtained by offering the solution for a cheap price. The introduction phase of the product lifecycle (PLC) could (Kotler, 2009) be the leading model at this stage. The previous recommendations were there to create demand and the costs of Librix are likely higher than the benefits for Arsis. Making profit is not important, rather Arsis should focus on encouraging potential customers to try the product. All these options are in line with the theory of the PLC (Kotler, 2009) and the consultative sales method (Ingram et al, 2007), where collaboration and after sales are important attributes in succeeding as an organization and making profit in a later stadium. The final step in succeeding is to have customers which are ready to buy the offering. This can be realized by arranging personal conversations with the potential customers, where consultative sales

conversation should be held (Ingram et al, 2007). The presence of references which are obtained as described in the previous recommendation will have running instances of Librix. Therefore the potential customers visited during this personal sales stage, could actually see a working instance of Librix which is found to be important. Furthermore the previous actions in the recommendations will decrease resistance and potentially increase the interest of the libraries in Librix. These are reasons why personal sales at this stage could actually be successful and all the previous steps should be taken in chronological order as listed above. The consultative sale ensures that the findings of this report are taken into consideration while it centralizes what customers value. The ultimate goal with this type of selling approach is to built on the attributes valued by the Turkish customers (obtaining references, service level, collaboration with seller), while making profit and being successful in a collaborative way with customers (Ingram et al, 2007).

Using prestige as a selling point

During the interviews it was found that some of the university libraries chose for Millenium as a LMS solution because the product was more mature compared to other solutions. However the fact that the product was developed in America played also a role. The director of the Sabanci university library for example stated that during the selection for a LMS back in the days, the American production of the LMS solution played a great role in their choice for Millenium. Further questioning revealed that somehow Turkish library directors expect superior quality from foreign solutions compared to local. This was also confirmed by Bogazici university library director, which stated that that foreign products often are 1 or 2 steps ahead of Turkish developed products. They stated that using Millenium as a reference of their library (which is a worldwide used LMS product), will most likely give advantage over university libraries which are using Turkish LMS products in attracting students. This is in line with the importance of prestige for Turkish people, which is confirmed in the report of Tansel & Gungor (2003). They found in their report for example that new students tend to choose for a specific field in their study, not because it fits their interest but most likely because that field holds the most prestige in Turkey.

Using this argument on the situation of Librix in combination with the fact that RFID LMS is the latest technology and is used worldwide by many libraries, could make the offering more interesting for potential customers. As noted above prestige is very important in Turkey. If a new university library chooses for Librix, they can show future students that they use the latest technology in their library and this could give them an edge over their rival libraries in attracting students for their university. With this in mind more and more university libraries could choose for Librix, which could cause the improvement of the position of Librix in Turkey because more references will be present. By having more references more potential customers will get interested, since having references is one of the most important points in attracting customers.

5.3 Limitations

All the findings in this report seem to fit the literature. The practical relevance of the literature therefore seems to be very high. However it is important to keep the validity issues of this research in mind. The most important drawbacks of this research are the relative small number of (10) interviews, the specific setting of this research and the time of research execution. The first drawback is clear, but elaborating on the other two will make it clear that the generalizability of the findings in this research is very limited. The situation of Librix, the interviewed customers and LMS market are very specific and cannot be considered as a reflection of entering the Turkish market in general. This is because the targeted market is too small and the specific focus on the targeted potential customers in this research. The short period of time in which this research is executed could make the findings not up to date in a few years for example. Longitudinal research is required to be able to confirm if the findings in this research are still applicable in a few years. The most practical example of this is the general RFID knowledge among the customers. RFID was not known until a few years ago (2007) when it emerged, but this report found that the potential customers are still lagging behind in general knowledge terms but they are aware of the presence of such technology in the LMS market. By examining the findings of this report longitudinal, also some resistance factors economically and socially could diminish as Turkey develops towards Western European standards.

Another potential bias for the internal validity of this report is that all the interviewees are university libraries. Arsis decided to primarily focus on these libraries because they qualify as potential customers, because standard public libraries are not large enough at this moment to consider RFID. The DESTEP analyses however demonstrated that Turkey is developing from all points of view, thus it could be possible that social facilities such as public libraries will become larger and more frequently used in the future. Excluding public libraries from this report therefore could be a reason why this report is relatively precautionary in describing the potential of the Turkish LMS market. If these libraries were included the whole potential of the Turkish market and the potential of RFID LMS in Turkey could be different than it is in this report.

The problem with qualitative information gathering methods such as interviews is the potential of self-reported data. This means that the respondents in this research could for example exaggerate the benefits of the LMS that they use currently or do not mention the weaknesses of the current systems that they are using. A real life comparison between the "traditional" and RFID LMS should be made in order to cover this problem. The annual ANKOS meeting is for example an excellent opportunity to invite and present and compare all the LMS solutions available in Turkey.

5.4 Scientific contribution

This chapter of this report focuses on the models used, value proposition literature and the future research from a scientific perspective. The subjects are separated to have a clear understanding why and to what extent the approach used in this research could be applicable in other situations using the value proposition literature. Furthermore this chapter demonstrates in which direction future researchers which are interested in the value proposition could go, to understand the market and customers in a better way to create a higher level of competitive advantage.

Models used

The scientific literature concerning customer value propositions all point in the same direction, if an organization wants to succeed in a new market it must obtain knowledge concerning the current customers and the external market. All the authors (Woodruff, 1997; Anderson & Narus, 1998; Anderson et al, 2006) stress the importance of focusing on these points and this research is an example why it is so important. This research used the FFM (Porter, 2008) and DESTEP (Kotler, 2009) to describe the external market, while it used interviews at potential customers to obtain knowledge regarding what customers value. Furthermore this research used the marketing mix (Borden, 1964) in order to make the findings operational.

All the models used in this literature fulfilled its purpose and it seems that all the models used are applicable in a B2B situation like this one. This means that future researchers in a similar setting could choose for using the same models. This could also be important knowledge for Arsis, if they decide to hire a student in the future to elaborate on this research. There were several questions concerning the usability of the marketing mix, which are discussed in the second chapter of this report. The marketing mix is an operational model for B2C situations (Constantinides, 2006), but this research proved that this model can also be used in a specific B2B situation like this one with taking the disadvantages of the model into consideration. The FFM and DESTEP have their limitations also, but suited the purpose of collecting market data in this research.

Value proposition literature

Overall the theory concerning value propositions is a relative complete according to the relevant findings during this research. All the mentioned attributes by the authors were relevant in this research to come up with important findings for Arsis. The market data gave a lot of information concerning the development and the chances of Arsis in the library market, while the interviews at potential customers revealed their wishes concerning the product. All the information requested in order to gain competitive advantage seems to reflect the reality. It can be said according to the findings in this research that the customer value proposition model, is a model which can also be applied in B2B markets and that the model really reflects the knowledge needed in order to create competitive advantage.

A point of critique however on the theory found during this research is that all the authors' focus on customers and market data as determinants. These influences are all external but this research found that some internal organizational influences could also have a significant impact in creating competitive advantage. The Turkish customers for example are very keen to collaborate and purchase from organizations which are internally stable and operating on the market for a longer time. The financial

position of an organization, research and development capability and facilities were mentioned by the customers as determinants for choosing for a specific supplier. All these determinants are not recognized by the value proposition literature, while the impacts of these findings are very relevant in creating competitive advantage.

Another interesting research subject could be to evaluate all the different models which can be used to fill in the market and customers data. This research used some specific models which are discussed in the previous paragraph. However there are a lot of alternatives and most of the alternatives were not analyzed thoroughly. Analyzing all the models and demonstrating their advantages and disadvantages could make the value proposition literature completer and easier to use. This research proposed such a model which can be found in figure 2. Elaborating on this research can deepen the subject of value propositions and can make the model in coming up with value propositions very specific. Organizations that want to use this theory will have a specific way of working, because all the models with their pros and cons are pre-determined.

Future research

Future research should first of all focus on to what extent the role of the internal organization is in creating competitive advantage through value propositions. The findings in this research suggest that the role of the internal organization plays a significant role in succeeding, as found during the interviews. This could be however caused by the type of products used in this research, the social cultural influences or by any other influence specific for the setting of this research. Therefore future research should focus on identifying if and which internal organization attributes are universally important in creating competitive advantage through the value propositions.

Furthermore the models for collecting market and customer's data should be analyzed in order to determine which methods are the most appropriate in different settings. This way organizations will have an specific understanding in what path to follow, in creating competitive advantage through value propositions.

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Appendix A: Interview questions

Introduction

- Who am I
- Why this research
- What is going to happen with the results
- Who is it for
- Basic respondent information

Value proposition topics

15. *How is the current sorting/ registration process within the libraries/universities?*
16. *To what extent does efficiency play a role in the sorting/registration process?*
17. *How is the buying centre configuration within university libraries in Turkey?*
18. *What and to which extent do third party organizations have an impact on choosing for a solution?*
19. *Which (RFID) solutions are available in Turkey?*
20. *What are the three most important attributes a RFID solution should provide a library or university?*
21. *Which product customizations are needed/wanted?*
22. *To what degree is it important that a supplier produces everything it offers?*
23. *How do you think the library and university users would react on implementing the RFID solution?*
24. *What Institutional influences should Arsis consider for introducing Librix in Turkey?*
25. *What do you think of the current ways of promoting Librix?*
26. *What are the most important issues a library/university faces in controlling the whole primary process?*
27. *To what extent does price play a role in considering any solutions?*
28. *To what extent do the personnel of the Library/university need to be educated in order to work with the solution?*

Conclusion

- Additional information
- Want to receive the end results

Appendix B: Interview questions in Turkish

Translated Value proposition questions

1. Kurumunuzda odunc ve ihade islemlerinde ne tur sistemler kullaniorsunuz ve bunlari nasil gercekestiriorsunuz?
2. Bu islemlerde ve sistemlerde sizin ve kullananlar için en önemli olan noktalar neydir?
3. Karar verme sureci sonrasında, süreç nasıl isliyor? Bu surecte kimler etkili ve yetki sayibi ve hangi organizasyonların bu asamadaki etkisi nedir?
4. RFID hakkında ne tur bilgi birkiminiz var anlatirmisiniz?
5. Ornek model aldiginiz RFID kullanan universite kutuphaneleri varmi?
6. Sizce RFID sistemlerin hangi noktalarda kütüphanelere katkısı olmalı, ne avantajlar saliyabilir, sureci hizlandirirmi, maliyet artarmi azalirmi eskisine gore, zaman (personel)?
7. Sizce RFID çözümlerin Türkiye’de üretilmesi önemlimi?
8. Sizce RFID sistem üreten firmalar, bu sistemleri sizlere nasıl tanitmasi gerekir?
9. Kutuphanelerdeki mevcut personel RFID sistemleri kullanabilirmi? Personelin aktif bir sekilde sistemleri kullanbilmesi için hangi konuda neler yapılmasi gerektir?
10. Sizce Fiyat konusu önemlimi ve devlet bu konuda destek oluyor mu?
11. UHF ve HF teknoloji hakkında ne tur bilgi birkinimiz var? (ne için UHF sectiniz? Fiyat ve guvenlik → çok önemli olan bir farki ? önemli farklar nelerdir UHF olumlu en olumsuz en HF olumlu ve olumsuz yönleri
12. Yurt disi meseli bir RFID sistemi Türkiye’de aktif bir sekilde kullanilimi sagliya bilmek için sizce o sistemde neler olmazsa olmazlardır (dil, devletin kuralları/etkileri, fiat araligi, garanti kapsamı, sistem yedek parçaların tehmini mumkunmu (kac yıl)

Appendix C: Visited University libraries with their LMS system

Name University	Date Visited	LMS system
Bahcesehir Universitesi	14-12-2011	Yordam
Bogazici Universitesi	03-01-2012	Millenium
Istanbul Bilgi Universitesi	02-01-2012	Yordam
Kadir Has Universitesi	02-12-2011	Bliss
Istanbul Ticaret Universitesi	12-01-2012	Yordam
Yeditepe Universitesi	11-12-2011	Yordam
IRCICA library	29-11-2011	Ankaref
Istanbul Teknik universitesi	01-12-2011	Yordam
Sabanci Universitesi	21-12-2011	Millenium
Koc Universitesi	27-12-2011	Yordam