The Applicability of Competitive Battles in Scenario Planning

- A case study of the milk packaging industry

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Abstract

Title: The applicability of Competitive Battles in scenario planning - A case study of the milk packaging industry

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Issue of study: Since the World War II scenario planning has existed as a strategic planning tool and during the 1970s Pierre Wack introduced this strategic tool for organisations. Even tough the usage of scenario planning often aims to make better strategic decisions there still does not exist any clear method that is niched towards competition. Therefore a study with the purpose to understand if it is applicable to combine scenario planning together with a theory that regards competition would be interesting to explore.

Purpose: Explore the applicability of Christensen et al.'s theory on Competitive Battles in scenario planning.

Methodology: A case study has been conducted in collaboration with Tetra Pak®. The case study explores the future within the milk packaging markets in four different geographical locations. A positivistic qualitative approach has been applied within the frame of this thesis and has therefore formed the perspectives of this thesis. The gathered data is mainly based on secondary sources where triangulation has been used in order to secure credible information. Furthermore, the applicability is evaluated based on two fundamentals – the fit between the theories and if a competitive dimension is added.

Conclusion: The conclusion of this study is that the applicability of the Competitive Battles theory is limited. In order to integrate the two theories, adjustments were needed in order to integrate the two theories or else the integration would have been crammed. Despite the needed adjustments, the integration adds a competitive dimension in means of an better understanding about what actions the studied competitors are the most likely to conduct in a potential future world.

Key Words: Scenario planning, Competitive battles, Milk packaging industry, White milk, Competitive reactions.

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The development of this study has been an interesting journey since the beginning in January. During these four months we have gained insights about the scenario planning process as well as how Competitive Battles can be used in order to deduct information about companies likely actions and reactions. Without any guidance this would not have been possible. Hence, we are very grateful for all the support during these four months.

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1 Introduction

The introductory chapter provides an overview about scenario planning and how it can be used as a strategic tool. This is followed by a problem discussion where the potential to improve scenario planning is illuminated. Consequently a purpose and research questions are presented. Furthermore, the delimitations and the disposition for this thesis are presented.

1.1 Background

In 1894, The Times estimated that the streets of London would be filled with nine feet of horse manure by the year of 1950 (Morris 2007). In 1876, the chief engineer of the British post said "The Americans have need of the telephone, but we do not. We have plenty of messenger boys" (Cellan-Jones 2012). In 1943, Thomas Watson, the president of IBM, said that there was a world market of about five computers (Strohmeyer 2008). Today, the streets of London are not filled with horse manure, almost everyone has a telephone and the same applies for computers. This shows how hard it is to foresee the future, and it is not becoming easier. The global world that exists today results in a highly dynamic environment, which creates several uncertainties for companies trying to operate in this kind of setting. Customer preferences can change overnight and new technologies can disrupt an industry without warning. The impact of these uncertainties can lead to new prerequisites for competition, and if organisations are unprepared for the change, they may have to exit the market. It is therefore important for organisations to predict and understand these uncertainties in order to have the capability to handle future challenges and gain a competitive edge towards competitors. But how can companies predict and identify these uncertainties? A way to analyse the future, and offer insights of a potential future, is to apply scenario analyses into strategy work. Scenario planning can add to the understanding of a potential future within a market and how to deal with the possible uncertainties that can occur. However, the understanding of a potential future is not always enough in regards to competition. Decision makers want to know how their competitors will act on different opportunities. Christensen, Anthony and Roth (2004) present a theory called Competitive Battles. It aims to explore motivation and skills for companies in order to gain knowledge about how they are likely to react on different opportunities and from that be prepared for the potential battle. In Christensen et al (2004) disruptive innovations create opportunities for competitors. Opportunities together with scenario planning can allow organisations to make better strategic decisions that will attract more customers and ward off competitors.

1.2 Problem Discussion

Scenario planning has the potential to add a dimension to decision making if done right. When working with strategy creation all kinds of different dimensions could be interesting to add into the decision-making, especially the dimension of a potential future. This is the reason why scenario planning is used. The scenario planning process is conducted by identifying key forces and trends aligned with the decision that the scenario analysis is supposed to answer. The next step is to identify the forces, or trends, that has the biggest uncertainty and impact on the focal issue and from this create potential futures around these. This kind of work is a challenging process that can be complex. Bradfield et al (2005) and Bishop et al (2007) argue that existing methods are hard for practitioners to use. This statement is in line with the authors' perception of the subject. The authors believe that the existing methods for scenario analyses and scenario planning are general and not niched towards any specific area. Since scenario planning often is linked to strategy creation the authors believe that it is strange that the connection towards competition within a market is not clearly taken into account in existing methods for scenario planning. If a potential future could be created regarding a competitive landscape, and the dynamics within such environment, strategy decisions could gain an extra dimension.

Scenario planning has existed for several decades. It was first applied during World War II and Herman Kahn extended the concept into social forecasting (van der Heijden 2001). Later, in the 1970s, Pierre Wack introduced scenario planning as a strategic planning tool for organisations (Varum & Celo 2010). This is a long history and the question about why niches towards competition have not been created arises. The reason for this can be several factors. For example, it might not be convenient to combine competitive dynamics with scenario planning. But if it were convenient, scenario planning methods that take the dynamics of a competitive environment into account, could offer an extra edge to strategic decisions. The theory about Competitive Battles is an approach that captures how changes affect different competitors decisions i.e. the dynamics of a competitive environment. To further understand if this is an applicable theory to combine with scenario planning is an interesting area to research.

The value that this approach would offer could be preferable for different industries. The milk packaging industry is an industry that this approach could be valuable in. There are a few big actors competing for the global market share. Since there are a few actors, it is interesting to understand how the future will develop and how each competitor will act in the future. If the actors' competitive choices can be foreseen, it will give a huge advantage for the organisations applying this kind of approach.

1.3 Purpose

Explore the applicability of Christensen et al.'s theory on Competitive Battles in scenario planning.

1.4 Research Questions

Is Christensen et al.'s idea about Competitive Battles applicable with scenario planning?

- Can the theories be integrated without adjustments?
- Does the integration add a competitive dimension?

What is the outcome, from the integration of the two theories, for the studied industry in this case study?

The reason for the sub-question breakdown of the first question is due to the authors' perspective of what applicability is. The reasoning is further explained in chapter 2.2.3 called evaluation. In short the reason is that the less adjustments there are, the easier the theories are to combine. Meanwhile, this thesis is conducted in order to add a competitive dimension to scenario planning; if it is not done there is no point to integrate the two. In order to evaluate the second research question a complete scenario planning process needs to be reviewed. Therefore, the theories are, if needed, adjusted until a scenario planning process could be conducted efficiently giving a concise and clear outcome.

1.5 Delimitations

This thesis will not focus on technical issues. It is close to impossible to identify all the dynamics in a competitive landscape. Therefore this thesis will be limited to those dynamics identified as interesting by the authors throughout their research phase. Within this thesis a case study within the milk packaging industry will be conducted. When conducting the case study, this thesis is limited to the ambient white milk segment and the scenario analyses will end in 2025. Moreover, there will be four different scenario analyses, which have a geographic delimitation. The countries that are applied during the scenario analyses are China, India, Mexico and Turkey. These are chosen as they represent a part of the largest markets in the world (China and India) as well as markets with high development potential (Mexico and Turkey). Moreover, for the case study, only the pre-selected competitors will be explored. This is due to time-limitations. The selected competitors are chosen together with an industry expert in order to research relevant competitors. Furthermore, the thesis is delimited from exploring how the competitors affect the forces affecting them. Due to time-limitations only one existing scenario analysis method is tested together with the Competitive Battles theory. Another delimitation that has been done within the frame of this thesis is to exclude Tetra Pak from the case study. The reasoning with advantages and disadvantages of this choice is presented in the last paragraph in the chapter called 2.1.4 Case Study.

1.6 Disposition

The outline of this report is presented in this section. Chapter one to four presents the prerequisites for this thesis. For example, the methodological approach and the applied frameworks are presented within these chapters. Chapter five presents the different competitors within the conducted case study. The presented information is later analysed by the help of the Competitive Battles theory. This could be seen as phase one for this thesis. It is within this section the prerequisites, to be able to conduct a scenario planning process and tests the applicability of the Competitive Battles, are presented. The next phase is where the applicability of the theories is tested. Chapter six presents the scenario planning process when deciding how the competitive situation in the milk packaging industry in China will look in 2025. This is the scenario analysis that is presented within the report, the remaining scenario analyses for India, Mexico and Turkey are provided in the appendix. After Chapter six an analysis, regarding the applicability of Competitive Battles in scenario planning, is conducted. In this chapter the logics behind the results are presented. This is followed by a conclusion and a discussion. The discussion explores the potential limits of this thesis and also opens up for new research areas.

2 Method

Chapter two, the methodological chapter, is divided into two parts. The first describes the methodical approach with the purpose to offer the reader a greater understanding about what frames this thesis has been created within. The second part describes the course of action within the thesis.

2.1 Scientific Approach

In this subchapter the authors describes possible methodological approaches and motivates chosen approaches for this thesis.

2.1.1 Epistemological Approach

The purpose of the study is to test Christensen et al.’s theory about Competitive Battles in a new environment. According to Bryman and Bell (2003), research aimed to test theories should apply positivism as the epistemological approach. Positivism relies on the foundation that the world is objective and that knowledge is cumulative (Jacobsen 2002). Furthermore, according to positivism, knowledge is empirically testable and cause-effect relationships can be deduced (Wallén 1996). Using positivism as the scientific approach means that the researcher should be completely objective and should not be influenced by external values (Wallén 1996). The opposite of positivism is hermeneutic. According to hermeneutics, humans build the reality, and there are no general laws in it and everything needs to be understood in its own context. In order to study the reality, the perceived reality needs to be examined (Jacobsen 2002).

Within this report a positivistic approach will be applied. Positivism allows the authors to believe in stated theory, and cause & effect situations, without studying it in its own context. Since the purpose is to test the theory about Competitive Battles in combination with scenario planning the authors will have to believe what is stated in these theories without conducting their own research within each area. Furthermore, the future will be studied which means that a cause and effect thinking is needed in order to fulfil the purpose of this study. Moreover, a hermeneutic approach would have been too time-consuming for the available time frame since the authors then would have needed to analyse what context the theories were written in.

2.1.2 Qualitative Study

Within the frame of this report a qualitative method was chosen. By applying a qualitative method the purpose of the paper can better be fulfilled. The advantages of a qualitative method are that it is best suited for complex and subjective problems where a deep and holistic understanding for a system is needed (Starrin & Svensson 1994; Holme & Solvang 1997). Furthermore, the qualitative approach is more flexible than a quantitative method. Also the process of data gathering, and what to research can be modified if new, more relevant and noteworthy, data is unveiled (Holme & Solvang 1997; Jacobsen 2002). Since the quantitative approach is, roughly, the opposite of a qualitative approach the advantages for a quantitative approach is the disadvantages for a qualitative approach, and vice versa. An advantage for a quantitative approach is that it demands a structured approach where the process is clearly stated and fixed (Jacobsen 2002). The structured approach is needed since the data will be compared during the report and therefore the data needs to be uniform (Bryman 2012). Furthermore, since the collection and handling of data is absent of personal interpretation a quantitative method leads to more objective results (Jacobsen 2002). The weakness of a quantitative approach is that the collected data might be irrelevant for the studied problem, and it cannot be changed after the study has been started since it requires a structured approach, which is inflexible (Jacobsen 2002).

This report studies the area of strategy and scenario planning, it is therefore important to have a deep understanding for the system in order to analyse future Competitive Battles. The advantage to have a holistic perspective within this report is that a system perspective can be applied. This will allow the authors to explore what consequences that a change, that occurs today, will have in the future.

Furthermore, predicting the future is a complex and subjective problem where there is no objective point of view, which means that the authors will need to have the ability to deduce data freely and to be flexible in order to achieve the report's purpose. Based on these factors a qualitative method offer the best prerequisites to achieve the expected results for this report.

2.1.3 Data Gathering

The data-gathering chapter provides the reader with an understanding about what data gathering approaches that has been applied during this thesis.

2.1.3.1 Primary Data

For a qualitative study, qualitative interviews and observations are considered to be the best way to collect information (Bryman & Bell 2003). Observations were ruled-out as a method for this report since this study does not look into a process and to observe the future is impossible. Therefore this thesis conducted interviews when collecting primary data.

Interviews in a qualitative study differ from interviews in a quantitative study. In a quantitative study structured approaches are considered favourable to ensure a high reliability and validity within the study (Bryman & Bell 2003). When interviewing in a qualitative study the researcher wants to understand the interviewees' perspectives and therefore puts greater emphasis on the respondent's replies than a quantitative study (Bryman & Bell 2003). Qualitative interviewing allows for more flexibility than quantitative interviewing since the approach for a qualitative interview can be less structured than in a quantitative study (Bryman & Bell 2003). This thesis has an interest in the respondents' perspective since it aims to research a complex and dynamic subject. Therefore a qualitative approach to interviews was taken during this study. Further, this allowed the authors to be more flexible during the interviews.

Qualitative Interview Approach

For a qualitative study there are two major techniques when conducting interviews, unstructured and semi-structured (Bryman & Bell 2003). Unstructured interviews are similar to a conversation where the interviewer might just ask one question and the interviewee then respond freely (Bryman & Bell 2003). Unstructured interviews were not chosen for this study since the authors wanted to be able to address specific topics and have the opportunity to ask follow-up questions.

Since unstructured interviews were unseemly for this thesis, the authors applied a semi-structured approach. Semi-structured interviews allow the researcher to list specific question or topics where answers are sought (Bryman & Bell 2003). Furthermore, during the interview, the researcher has the freedom to deviate from the specific topics and ask other questions or change the order of questions (Bryman & Bell 2003). This allowed the authors to ask follow-up questions and therefore gain greater understanding about the topic. Within this thesis the authors' strived towards conducting either physical interviews or telephone interviews. Although, it arose situations where the need for e-mail interviews where preferable. These situations occurred when the interviewees were located in another country or had no time for a physical meeting or a phone call. Bampton, Cowton and Downs (2013) argue that email interviews offer greater flexibility, in means of when to answer, for the interviewee. It is especially good when a physical or telephone meeting is hard to realise due to geographical obstacles or absence of time (Bampton et al. 2013). The semi-structured approach was also applied when e-mail interviews were conducted. The same topics, as for a physical interview, were used. For this kind of interview, the most significant and important questions were selected. This choice was based on the factor that e-mail have some restrictions, too many, and too big questions, can restrict the interviewee from clearly answering, or answering at all (Bampton et al. 2013). Furthermore, e-mail interviews do not have the possibility to ask follow-up questions in the same way as in a physical or telephone interview (Bampton, et al. 2013). If the authors believed that the answers derived from e-mail interviews were inadequate clarification questions were sent, and if no answer was given, the data was counted as insufficient. Furthermore, the authors did not mix any answers from e-mail interviews with a physical or telephone interview since these approaches have different restrictions and the empirical material should therefore not be compared.

Transcription

Kvale and Brinkmann (2009) mention two different types of transcription methods, one where statements are written out word by word including pauses and expressions such as "uhm". The other method is to transform the interview into a more formal written text. The first method is useful when linguistics is analysed (Kvale and Brinkmann, 2009). Since this thesis does not need to analyse the interviewees' linguistics in order to fulfil the purpose the second approach has been applied during the thesis. The transcription took place as quick as possible after the interview in order to have the interview fresh in mind.

Interview Construction

Since the purpose of the interviews, within this thesis, is to get a deeper understanding of a specific topic the authors applied the semi-structured approach in means of pre-determined topics to talk about. Within these topics the authors used open questions in order to get comprehensive answers, and therefore get a better understanding of the topic. Open questions are according to Häger (2001) questions where the interviewee needs to develop their answers and a yes or no answer is impossible. Furthermore the authors tried to formulate non-leading questions since this could affect the answers objectivity (Häger 2001). When follow-up questions were asked the authors also formulated these as open questions.

Selection of Interview Objects

When selecting interviewees two considerations was taken into account. The interviewee should have industry experience and have knowledge within the area of competition and competitive prerequisites. Furthermore, the interviewee should be active, or have been active, in a market that is represented by a few big companies that has the majority of the customers. The reason for the last consideration was that the market should be similar to the packaging industry.

2.1.3.2 Secondary Data

The web contains a vast sea of knowledge from several sources. In order to collect accurate data and spend a reasonable time doing so, a strategy for data collection is required. The method for data gathering in this thesis was to apply a combination of the two concepts triangulation and convenience. Triangulation is a mean to increase validity by ensuring that the gathered data is repeatedly mentioned in different sources (Jacobsen 2002). Convenience is to collect data that is suitable to the purpose. This leads to a more time efficient and effective data gathering at the expense of data credibility (Creswell 2007). The authors chose a combination of these to utilise the strengths of both methods and naturalise the weaknesses, i.e. the efficiency and effectiveness from the convenience method and the increased credibility of the data from the triangulation method.

Source Criticism

When using secondary data, the authors analysed the credibility of the sources by asking five questions. The questions that have been used are based on Lars Berggren's text about source credibility (Berggren 2008). These questions were:

- Who are the authors and is it academic legitimate?
- How much knowledge do the author contain within the area?
- Are there well-documented sources?
- Do the text have any hidden purpose? For example, political or ideological
- When is the text published?

The authors discussed and evaluated the sources based on these questions. Especially the sources that were on the borderline were carefully discussed, e.g. if there was a hidden purpose. In addition to these questions the authors have used triangulation in order to make sure that the stated fact are repeatedly mentioned, which increases the validity (Jacobsen 2002). The sources that are approved in this report have successfully completed the process mentioned above.

2.1.4 Case Study

A case study is, according to Bryman (2012), a thorough analysis of a single case. It is often correlated with qualitative research (Bryman 2012). The biggest criticism towards case studies is the question of generalisation, where the main concern regards if a single sample is representative for general findings (Bryman, 2012). Yin (2014) argues that it is possible to generalise from one case by the help of analytical generalisation. This is the logic that case study findings can be extended into other situations, either by advancing theoretical concepts, e.g. confirm, disregard or adjust the concept, by empirical findings or by creating new concepts (Yin 2014). Based on this fact the authors believe that a case study is suitable for the thesis purpose since it will allow the authors to test the chosen theories through a case.

Case design

According to Yin (2014) there exists four kinds of case study designs; single cases, multiple cases and each of these can either be holistic or embedded.

A single case design implies studying one specific case within one context. There are five case situations where single case studies are appropriate (Yin 2014). These are illustrated in Table 2.1. Single case study designs are vulnerable to the risk that the case is not what it was thought to be in the beginning, it is therefore important to carefully investigate the case before hand in order to understand what to research (Yin 2014). Furthermore, since a single case design only involves one case it becomes important to have a strong argument to justify the selected case (Yin 2014).

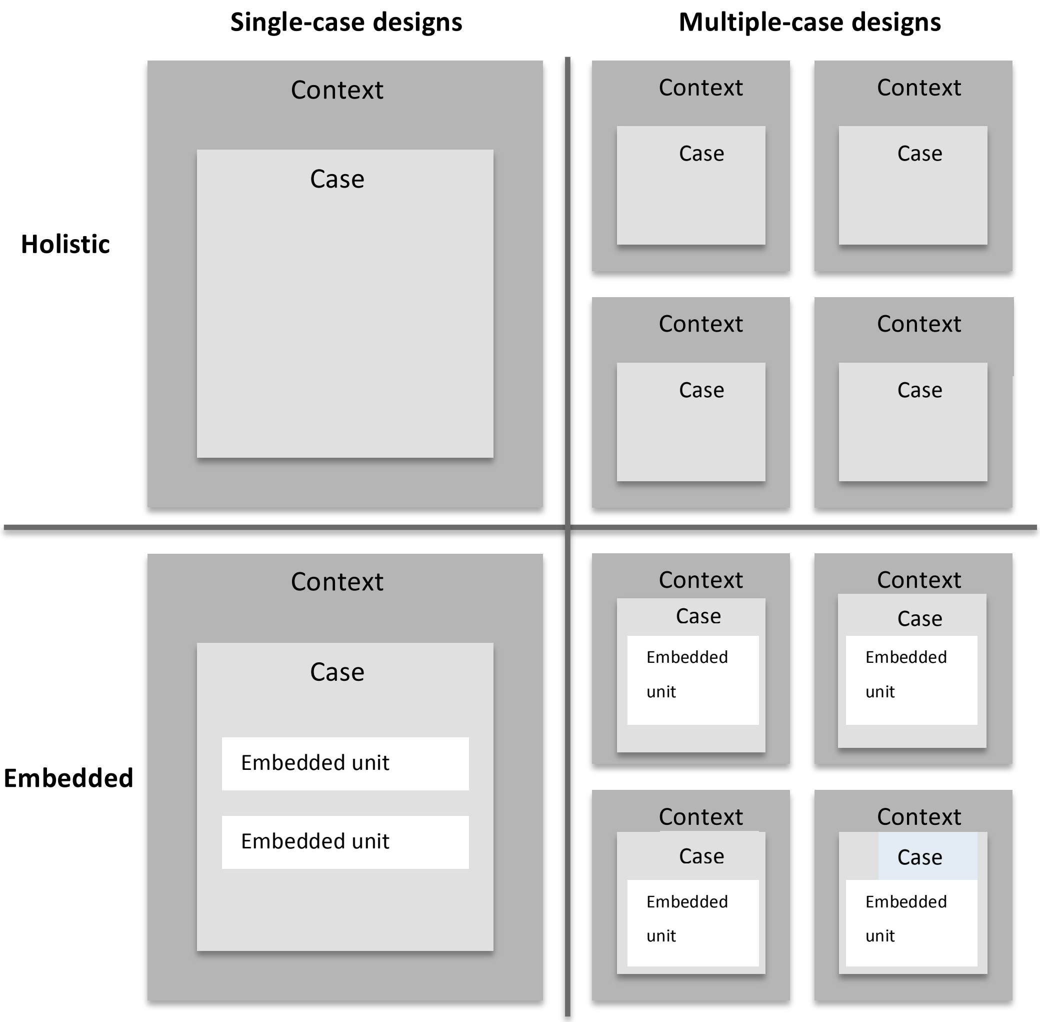
Table 2.1. ***Different case situations suited for single case designs*** **(Yin 2014).**

Case situation	Explanation
The critical case	A case situation that is critical and has the correct circumstances in order to test a theory in its demanded specific context.
The extreme or unusual case	A case that is deviating from theoretical norms or normal circumstances
The common case	A case where everyday situation can be captured and give insights to a broader context
The revelatory case	A case where observation or analysis of a phenomenon that former has been inaccessible becomes plausible
The longitudinal case	A case where the same case is studied more than one period over time.

Multiple case designs imply studying several cases within one context. If there is time and resources a multiple case design is preferable over a single case design since this approach does not put all resources in the same basket (Yin 2014). A multiple case design allows stronger analytical conclusions since there is more than one situation to draw conclusions from (Yin 2014). The drawback for this design, in addition to the need for time and resources, is that a multiple case design usually has problems satisfying the situations, seen in Table 2.1, where single case studies are suitable (Yin 2014).

If the case study should be holistic or embedded depends on the nature of the case. A holistic approach is suitable when there are no logical subunits to analyse, although the drawback is that this approach could lead to a case study that is abstract and lack clear data measures (Yin 2014). As an opposite of the holistic approach the embedded approach is suitable when there are logical subunits to analyse. Therefore the embedded approach offers a detailed but yet holistic analysis (Yin 2014). However, this method also has pitfalls, there is a risk that the analysis becomes too focused on detailed factors which harm the holistic analysis (Yin 2014). An illustration of the different approaches is presented in Figure 2-1.

Figure 2-1. The different case designs (Yin 2014).



Within the frame of this thesis an embedded single case study has been used. There are two factors that the choice of single case design is based on. The first factor is that this thesis's case corresponds to a situation where a common case is applicable. The second factor is that the authors have restricted time resources and a multiple case design would be too time consuming. Furthermore, the embedded approach was chosen since there are logical subunits to analyse.

As the chosen case design for this study is an embedded single-case design the approach is presented in this section. The context of the case study is to predict the future and how the competition will develop. The case is the milk packaging industry. Within this there are four geographical delimitations since the global market is too complex to study. Furthermore, the embedded units for this case are Schweizerische Industrie Gesellschaft Combibloc, Elopak As, Greatview Aseptic Packaging Company Limited and Krones AG that are the competitors that will compete in this future market. These actors are chosen as relevant actors in collaboration with Tetra Pak®, which is the collaboration partner for this thesis.

Furthermore, it should be addressed that Tetra Pak® is the biggest actor within this market, although, Tetra Pak® is not included within the frame of this thesis. There are two reasons for this. The first reason is that this thesis is written through the perspective of Tetra Pak®. The report aims to test the scenario planning process together with the Competitive Battles theory. If this process were conducted in real life, the actor who conducts the analysis would like to see him or herself as neutral and understand the other players first. The next step would be to apply it on the organisation itself, which falls out of the frame for this study. The second factor is that the authors would like to be as unbiased as possible and since the thesis is conducted in collaboration with Tetra Pak® the unbiased perspective would be threatened if Tetra Pak® were included. As mentioned, the advantage of this choice is that it will strengthen the objectivity within this thesis. The disadvantage is that the biggest actor in this market becomes excluded. Although, this disadvantage does not affect the purpose to a great extent since it explores the applicability between Competitive Battles and scenario planning.

2.1.5 Reliability and Validity

Reliability can be defined as a way of measuring consistency (Bryman & Bell 2003); the same approach with similar information shall lead to the same or a similar output. The authors will strengthen the reliability by thoroughly explaining the course of action. Validity is the matter of measuring the right things in regard to the specific purpose (Bryman & Bell 2003). The validity in a qualitative study depends on the researchers methodological skills (Patton 1990). What is measured is a consequence of the researcher skills and therefore the researcher might be biased when discussing the validity.

According to Holme & Solvang (1997) qualitative methods does not put much emphasis on reliability since the characteristics of the purpose is often to understand or explore a phenomenon. Furthermore, in a qualitative study it is hard to test the reliability since there is not any straightforward test for doing so (Patton 1990). Moreover, Bryman and Bell (2003) argues that the validity issue usually have little bearing in a qualitative study. Based on this the authors have chosen to refrain from the reliability and validity discussion within the frame of this thesis.

2.2 Methodical Approach

In this subchapter the process of the thesis is presented. It aims to offer the reader a better understanding on what phases the study went through.

2.2.1 Selection of Framework

The selected frameworks that are applied within the frame of this thesis are Christensen et al.'s Competitive Battles and Peter Schwartz scenario planning process. The rationale behind the selection is presented below.

2.2.1.1 Competitive Battles

The theory about Competitive Battles is chosen based on curiosity. The authors' find the theory interesting and are curios if the theory can be taken out of it context and be value-adding in another context. Therefore the applicability of Competitive Battles in scenario planning is researched.

Competitive Battles is a part of a framework that regards how competitors in a market react to disruptive innovations (Christensen, Anthony & Roth 2004). In the complete theory, Competitive Battles are not bound to only analyse disruptive innovations, Competitive Battles rather uses the disruptive innovation as an input in order to analyse how the different competitors will react to the event. Competitive Battles is therefore a framework that can be used when there is an input, e.g. an event. When Christensen et al. applies the framework, the input is a disruptive innovation. The fact that the framework needs an input had the authors believe that it could be applicable in scenario planning since the concept offers input in form of scenarios. Furthermore, the authors believe it is a theory that, in a good way, captures the competitive dynamics in a market without having insider information. The authors believe that this is the case since it is a theory that allows for analysing different competitors potential competitive actions depending on the competitors' asymmetries. At the same time, by capturing the competitive dynamics in a market adds the niche to scenario planning that the authors are missing within the current scenario planning methods. These factors made the authors believe that Christensen et al.'s theory about Competitive Battles could be applicable in scenario planning.

The course of action, in order to complete this analysis, was that the authors firstly collected information about each company. The information was collected in alignment with focus on what to look for according to the Competitive Battles theory. The information was gathered from the Internet, where annual reports played a major part. When the information was gathered it was analysed according to the theory. A challenge that was encountered was that the chosen companies lacked some of the information that Competitive Battles want within the value category since few were listed companies. It should therefore be mentioned that most of the gathered data within this category is in aligned with the statement that falls within the area of business model. Where values can be mirrored in what an organisation believes creates value towards customers. This information was easier to gather since signs that indicated on a belief that a specific action created value towards customers could be identified easier since it was not as specified as the other areas.

2.2.1.2 Scenario Analysis
To choose a relevant theory within the area of scenario planning a three step approach was conducted. These steps were carried out in order to secure relevant literature and to select a suitable scenario planning theory for this thesis.

The first step was to get an understanding of what authors and literature that exists. Reading literature reviews made the authors understand this. The literature reviews were found by LUBsearch, a search engine provided by Lund University Libraries. In order to scale down the search results some specific keywords were used. The keyword structure is illustrated in Figure 2-2. These literature reviews facilitated the finding of relevant literature and offered insights in which authors that have influence within the field.

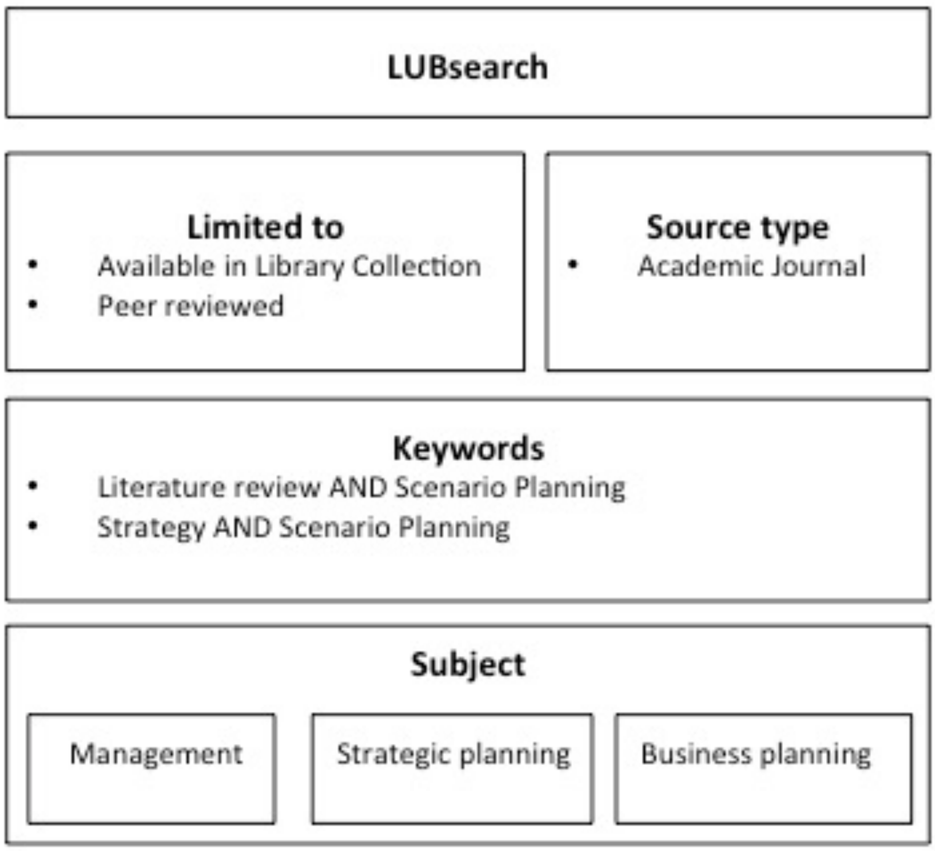


Figure 2-2. Keyword structure.

The second step was to further study the recurrent authors. Their publications were studied in means of content and references. Cross-referencing between the authors was studied as a mean of securing that credible literature had been selected.

The third step was to get a better overview of the different schools within the area of scenario planning and who had developed new ideas within each school. According to Varum & Melo (2009) scenario planning was developed as a strategic tool in two different geographical locations, these were USA and France. The American branch is divided into two areas called *The Probabilistic Modified Trend School* and *the Intuitive Logics School* (Bradfield et al. 2005**)**. *The Probabilistic Modified Trend School* is a quantitative approach that extrapolates trends (Bradfield et al. 2005). Based on this, that it is a quantitative approach, the authors decided to disregard from *The Probabilistic Modified Trend School* within the frame of this thesis. Pierre Wack was the founder of *the Intuitive Logics School* (Bradfield et al. 2005). The French branch consists of a school called *The La Prospective* where Michel Godet has been a driving force (Bradfield et al. 2005**).** These two different schools gave the authors a fundamental base to further explore. By studying the other literature the authors came to an understanding from what schools the existing methods are developed from. A summary of these methods is illustrated in Figure 2-3.

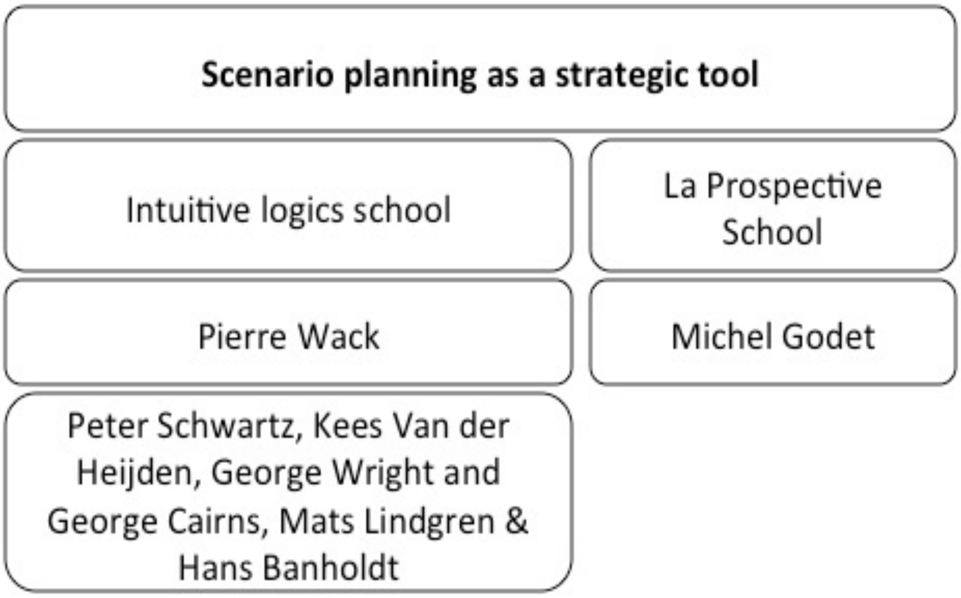


Figure 2-3. ***Different scenario analysis schools.***

To test the applicability of Christensen et al.'s theory the authors decided to use Schwartz's scenario theory, as a representative for scenario planning. According to the authors' research, scenario planning derived from France has not been explored as much as the theories from USA. The authors therefore thought it would be more interesting to research the more popular theories from the American branch. Pierre

Wack was the forefather to this branch while Peter Schwartz was the one who continued to evolve these theories (Varum & Melo 2009). The reason why the authors chose t*he Intuitive Logics School* and Schwartz's theory was based on the fact that Schwartz was one of the authors who popularised *the Intuitive Logics School* by creating a model based on the experiences that Pierre Wack presents in his articles. Furthermore, this model is not especially detailed, which provides good conditions when it comes to combining it with other theories. In other words, this is a model that gives the applicability of Competitive Battles in scenario planning a chance to be applicable.

2.2.2 Scenario Analysis

Applying Schwartz's scenario analysis method, presented in chapter 3.2, processed the scenario analysis. The scenario analysis method formed the working process and as a consequence controlled what kind of data that was needed to conduct the analysis. In step seven of Schwartz's scenario method the authors applied the Competitive Battles theory. By completing this task, a set of scenarios treating the competition could be presented. The approach to the scenario analysis is illustrated in Figure 2-4. Certain steps in the method required empirical data, these steps either uses secondary data or interviews. The secondary data was collected, as mentioned, by using a convenience and triangulation data gathering strategy, whereas the semi-structured interviews were based on a script of questions. This script can be found in Appendix A and the interviewees' role and organisations are presented in 4.1.1**.**

1. Identify Focal Issue or Decision	Brainstorming
2. Key Forces in the Local Environment	Interviews
3. Driving Forces	Interviews
4. Rank by Importance and Uncertainty	Workshop
5. Selecting Scenario Logics	Choice based on the outcome of step 4
6. Fleshing Out the Scenarios	Creation of future worlds
7. Implications	Competitive Battles theory is applied
8. Selection of Leading Indicators and Signposts	Identification of significant forces

Figure 2-4. The applied scenario planning process (the authors' approach in the right column).

Step one, the identification of the focal issue or decision. The authors formulated the focal issue or decision. The formulation was derived by a workshop where the authors brainstormed different formulations of the focal issue or decision. The next step was, in order to secure that it was a good formulation, the authors discussed consequences and compared the advantages and disadvantages with the different formulations.

Step two, identifications of the key forces in the local environment. These forces was identified before the scenario analysis was started, this was due to the fact that it required empirical gathering. And the outcome from this gathering was used within the frame of the scenario analysis. The reason for the empirical gathering was that the authors wanted to get a better understanding about what forces, affecting competition that should be further explored within the frame of the scenario analysis. In order to get this understanding the authors interviewed different organisations. The interviews were conducted by phone and e-mail, whereas all were based on the same script of questions. This script can be found in Appendix A and the interviewees are presented in chapter 4.1.1**.** After the interviews, the authors grouped the different answers into common areas. This was done through a discussion about what category the different answer could fall within. As a second phase, the clusters was quality checked through an interview with a milk packaging industry expert in order to secure that these were relevant. The common areas were politics, economy, customers, technology and threat from possible value chain competitors. The actors that are analysed within the force *possible threat from value chain competitors* are Arla and Stora Enso. These actors are chosen as relevant actors to study, within this case study, in collaboration with a milk packaging industry expert.

The third step, identification of driving forces, was conducted by gathering secondary information within the categories gained from step two. The authors searched the Internet in order to gain an understanding about each category. When this information was gathered the authors jointly identified driving forces that could affect the focal issue. Technology and threat from possible value chain competitors had the same driving forces for each scenario analysis, independent of geographic location. In order to secure that the gathered information was comprehensive enough, and that the identified trends and forces was correct, the authors interviewed two different representatives, both with deep knowledge about the competition within the milk packaging industry and one of them had country specific knowledge as well. This was a structured interview where each force and trend was treated and at the end a discussion about the comprehensiveness of the forces and trends was conducted. If an important force or trend was missed, information about this was gathered and complemented within the thesis.

Step four, ranking the driving forces by importance and uncertainty. This step was conducted through a workshop between the authors. As a first weft, the authors ranked the different driving forces by importance and uncertainty with a scale between one and five where one corresponded to low and five to high. The authors also had to have a motivation for each rank. This was conducted alone. After completion, the authors jointly went through each driving force, presenting each rank of importance and uncertainty together with the motivation. Each driving force created a discussion where the authors jointly decided what importance and uncertainty that was proper. For example, if a force had an uncertainty rank corresponding to 1, 3 and 5 the uncertainty became five since it was obviously uncertain how the driving force would develop. According to Schwartz's theory the key forces also should be ranked, in this thesis case: Political, Economical, Customer, Technology and possible value chain competitors. This was something the authors actively choose to refrain from since the key forces in this scenario analysis had a wide spread. It would be too complex to create worlds based on how each of the underlying forces within, for example, politics would develop. The worlds would therefore become too general and a concrete scenario would have been close to impossible to develop.

Step five, the selection of scenario logics. The purpose of this step was to get the two, or three, driving forces that had the highest importance and uncertainty. Therefore the authors wanted to identify the driving forces that had a total importance and uncertainty rank of ten. If there was no driving force that had a total sum of ten, the authors looked for a driving force with a total rank corresponding to nine, if there were none of these, the countdown continued at a similar rate. Furthermore, if there were more than two, or three, driving forces that had the same importance and uncertainty rank the authors firstly analysed if the driving forces were interrelated. If they were, one of them was randomly chosen. If this was not the case, the authors did a second round of ranking and further specified the driving forces and the rankings. Moreover, the trend of the chosen driving force, to build the scenarios upon, was removed and just became a force without direction. This was done since these forces should have the possibility to move in both directions in order for the scenarios to be developed.

Step six, fleshing out the scenarios. Based on the main driving forces, the authors explained how each world developed with the help of the driving forces. In order for the worlds to be internally consistent the authors created a map where interrelations between the forces were presented. This was done due to the fact that the authors wanted to get an understanding about how each driving force was connected. This map was created in two steps. The first phase was to explore the connections between the driving forces. The second phase was to quality check it by explaining each connection two days later. If the logics were insufficient the connection was deleted.

Step seven, implications. Within this step the authors applied the Competitive Battles theory. Before the scenario analysis was conducted the authors had gathered and analysed information about the chosen competitors for this study. This meant that the scenario analysis was combined with the analysis from the Competitive Battles theory. What the authors did in this step was to combine the outcome from step six i.e. four potential future worlds, with the analysed competitors asymmetries. In each of these worlds the analysis from the Competitive Battles was applied. The goal was to understand how each competitor could act in each of these worlds.

Step eight, selection of leading indicators and signposts. For this step the authors tried to identify what driving forces that could be a signpost that the created world would be realised. This was done based on the knowledge that the authors gained during the process.

2.2.3 Evaluation

The applicability of Christensen et al.'s theory on Competitive Battles in scenario planning was evaluated based on the authors' view of the process. This was done by addressing and discussing the research question's sub queries.

In order to approve if the theory about Competitive Battles is applicable in scenario planning the authors evaluated two factors. The first factor is that the theories should be efficient to integrate without adjustments. For example, an adjustment is if information is refrained from since it is only relevant in one of the theories. The authors' rationale behind this evaluation factor is that the less adjustments that are made, the easier the theories are to integrate. The second factor is that the integration should add a competitive dimension. If this is not done the authors see little point in integrating the two theories. Both of these factors need to be fulfilled in order for the authors to approve that the theories are applicable. In order to answer the research question, and consequently fulfil the purpose the outcome is evaluated with three different levels of applicability. These are illustrated in Table 2.2**.**

Table 2.2. Evaluation criteria.

Outcome from the analysis	Answer on research question
Both sub-queries are discarded	The theories are not applicable
One sub-query is discarded and one is approved	The applicability is considered as limited. Meaning that there is potential to further study this subject
Both sub-queries are approved	The theories are applicable

3 Conceptual Frameworks

In this chapter the theoretical foundation is presented. The two frameworks that will be presented are Clayton Christensen et al.'s Competitive Battles and Peter Schwartz approach towards scenario planning.

3.1 Competitive Battles

Christensen et al.'s theory about Competitive Battles is a part of their process to predict industry change (Christensen et al. 2004). Incentives to improve and acquire more customers will set up battles between firms in a market. Competitive Battles aims to answer the question "W*hat is the likely results of head-to-head battles between industry combatants?"* (Christensen et al. 2004 p. 29). In order to reach a conclusion to the question an analysis of two areas should be conducted. These areas are, "Tale of the Tape" and "Sword and Shield" (Christensen et al. 2004). Tale of the Tape corresponds to the strengths and weaknesses of the industry players meanwhile "Sword and Shield" is to identify who is doing something another actor can not do or does not want to do (Christensen et al. 2004).

3.1.1 Tale of the Tape

Christensen et al.'s (2004) idea is to convey how an outsider can analyse a firm's strengths and weaknesses. According to Christensen et al. (2004) firms can successfully seize opportunities if they have suitable resources, processes and values. Strengths, weaknesses and vulnerabilities can therefore be derived through analysing the different actors resources, processes and values. Presented in Table 3.1 are examples of what to look for within each area. The idea of the tale of the tape is to identify combatants' strengths, capabilities, weaknesses and motivations.

Table 3.1. Tale of the Tape, resources, processes and values (Christensen et al. 2004).

Term	Definition	What to Look For
Resources	Things company has or has access to	• Tangible assets: Technology, products, balance sheet equipment, distribution network • Intangible assets: Human capital (employees' backgrounds, accumulated skills), brands, accumulated knowledge
Processes	Ways of doing business (skills)	• Difficult problems we know the company has repeatedly solved over time • Typical processes: Hiring and training, product development, manufacturing, planning and budgeting, market research, resource allocation
Values	Prioritisation (Motivation)	• Business model: The way a company makes money, cost structure/income statement, size and growth expectations • History of investment decisions

Identify resources

Christensen et al. (2004) defines resources as things a company has or has access to e.g. cash reserves, technology and human capital. In an organisation there exists tangible assets and intangible assets (Christensen et al. 2004). The tangible assets that should be analysed are technology, balance sheet, products, equipment and the distribution network (Christensen et al. 2004). Furthermore, the intangible assets that should be analysed are human capital, brands and cumulated knowledge (Christensen et al. 2004). The important thing is not what resources a company has; it is what the company has access to (Christensen et al. 2004).

Identify processes

When facing the same problem repeatedly companies develop processes in order to address the problem efficiently, minimising their risks (Christensen et al. 2004). For an outside analyst a way to determine processes is to imagine problems and tasks that the company repeatedly has faced in order to sustain in the market (Christensen et al. 2004). Find and understand a company's processes are a difficult task, especially less visible background processes. Processes that define a company's strengths are not always observable. However, Christensen et al. (2004) claims that recurrent problems, that have been repeatedly addressed, are visible and accurate enough for listing the processes that a company has. The implication of this reasoning is that an optimised process does not exist if a problem has not been faced before (Christensen et al. 2004).

Identify values

Christensen et al.'s (2004) definition of values is that it concerns what employees have in mind when making decisions, i.e. prioritisation or motivation. In order to find a company's values an analyst should look into how the company make money out of their business. Values can be found by looking in the income statement, customer roster and investment decisions (Christensen et al. 2004).

3.1.2 Looking for the Sword and the Shield

If companies have the same motivations and capabilities it is an indication that they care about the battle and has the necessary means to fight it. In scenarios, asymmetries are more interesting since asymmetries shows when a company will make a move that another company does not want to do (Christensen et al. 2004). There are two types of asymmetries: asymmetric motivation and asymmetric skills (Christensen et al. 2004). Regarding identification of asymmetric motivation, there are three factors to look for. These are an opportunity's absolute size, customers and business model. All related to a company's values (Christensen et al. 2004). Companies have asymmetric skills when one company's strengths are the other company's weaknesses. These asymmetric skills can be brandish to attack opponents. Table 3.2 summarises lucidly how an outside analyst could identify asymmetries of motivation and skills between companies. The asymmetries, occurring when looking for the sword and shield, between companies gives a good clue for telling in which direction the battle will go.

Table 3.2. Asymmetric motivation and asymmetric skills, what to look for (Christensen et al 2004).

What to Look For	Definition	Signals
Asymmetric motivation	Firm does something that another firm does not want to do (provides shield protecting from response)	• Size of market relative to firm size • Target customers • Business model in market relative to existing business models
Asymmetric skills	Firm does something another firm is incapable of doing (provides sword to use during attack)	• Mismatch between processes required for success and established processes

3.2 Peter Schwartz's Scenario Planning

In his book The Art of the Long View, Schwartz (1998) describes scenarios as stories about how the world could turn out in the future. To build scenarios is a tool to guide the user in a world of uncertainties. The stories help recognizing pathways for how the world could unfold and how changes in the present affect the pathways (Schwartz 1998). Scenarios should not be seen as predictions of the future since it impossible to be certain about such predictions. Instead scenarios should be regarded as a tool for learning and helping people making better decisions (Schwartz 1998). In order to be a functional tool, the scenario planning process create more than just one potential future. To hold down the complexity, a good benchmark is to not develop more than four potential futures (Schwartz 1998).

Constructing scenarios are often better to do in teams than individual because of the fact that teamwork offer the possibility to have different perspectives, which could unfold new driving forces that otherwise could have been hidden (Schwartz 1998). Schwartz (1998) presents an eight-step process that should be conducted when developing scenarios.

Step 1 – Identify the Focal Issue or Decision

The beginning when conducting scenario planning is to specify a decision or issue that needs to be answered (Schwartz 1998). A good idea for developing scenarios is to start with an "inside out" perspective and not an "outside in" perspective. What are the questions the company wants to answer in a near future (Schwartz 1998). If the start comes from important decisions that have to be made, it is a bigger chance that the differences that will distinguish the scenario also will make a difference for the business (Schwartz 1998).

Step 2 – Key Forces In the Local Environment

In order to answer the focal issue or decision, a listing of key forces affecting the issue or decision needs to be done. In this step the scenario analyst should identify what considerations might become necessary in order to tell something about the outcome (Schwartz 1998).

Step 3 – Driving Forces

Finding the driving forces is the most research-intensive step in the process of scenario planning. The research is one of the success factors for scenario planning. It helps to give the decision maker a story that reason around what is already known to a world they can re-perceive (Schwartz 1998). The driving forces are factors that have influence of the earlier identified key forces. Driving forces are therefore elements that will move the plot in the different stories forward (Schwartz 1998). Knowing what will be inevitable and necessary respectively unpredictable are useful when identifying driving forces (Schwartz 1998). Searching in the past is one way to get guidance for the future. Saying "If only I had known that" provides information of what forces that have been of importance in earlier decisions (Schwartz 1998).

Step 4 – Rank by Importance and Uncertainty

All key, and driving forces, should be ranked by the criteria importance and uncertainty. The importance should be in regards to the focal issue or decision, meaning what impact the force has (Schwartz 1998). The uncertainty should be ranked in regards to each key and driving force separately (Schwartz 1998). The goal of the ranking is to tell which two, or three, forces that are most important and uncertain (Schwartz 1998).

Step 5 – Selecting Scenario Logics
From the ranking in the previous step, the axes that will distinguish the scenarios should be determined. When deciding, a low number of "scenario drivers" are preferable. This is because the scenario planning should not proliferate around all uncertainties. Even if there are many things that could happen only a few scenarios can be developed in detail (Schwartz 1998). Once the fundamental axes are determined it is useful to present them, for example in a matrix if there are two axes. Thereafter the scenario will be characterised by the location along the axes (Schwartz 1998).

Step 6 – Fleshing out the Scenarios
The out fleshing of scenarios is supposed to reveal connections between forces and trends (Schwartz 1998). When the scenarios are fleshed out, earlier identified forces and trends are revisited. The purpose of doing this step is to present, for the decision maker, how different worlds can be created based from the starting point (Schwartz 1998).

Step 7 – Implications
After the design of the different worlds the focal issue or decision should be revisited. The aim is to come up with an answer for the decision or issue (Schwartz 1998).

Step 8 – Selection of Leading Indicators and Signposts
If there is a way to know what the future holds there is an opportunity to get a competitive advantage. Therefore, the last step in the scenario planning is to select leading indicators and signposts for the different worlds (Schwartz 1998). These indicators should be monitored continuously in order to know which of the different worlds that are closest to reality when it unfolds (Schwartz 1998).

4 Empirical Gathering

In this chapter the results of the empirical gathering is presented and further explained how it affects the scenario analyses.

4.1 Interviews in Order to Understand Key Forces

In order to conduct the second step in Schwartz scenario planning process key forces needs to be identified. The authors chose to conduct interviews in order to identify relevant key forces that affect competition. The interview objects were chosen according to the method. The interviewees' work field can be found in Table 4.1**.** Furthermore, the interview questions are presented in Appendix A**.**

4.1.1 Results

The result from the interviews are visualised in Table 4.1.

Table 4.1. Interview results.

Role of interviewed person and business area for the company	Factors affecting the competition in the market	Factors with biggest impact
Director of business development and marketing, Construction Retailing	Brand awareness, preferences, price & packaging, relationship, price, knowledge	Brand awareness, relationship, price
Senior Manager, Accountancy	Global Economy, competence, laws and regulations	Access to qualified labour force, change in regulations
Head of customer function, Food Retailing	Business model, customer trends, international trends, competition law	Competition law
Manager, Business Intelligence, Beverage Packaging Market	Customer trends, Population increase, politics, technology, resources	Customer trends, politics
Leader of Strategic Projects, Beverage Industry	Market size and value, product range, customer environment, customer relationship	Customer environment

The forces were clustered in main categories that become the key forces for step two in the scenario planning process, the key forces in the local environment. The identified clusters were politics, economy, customers and technology. The clustering is shown in Table 4.2**.**

Table 4.2. Key forces and clustered factors.

Key force	Clustered factors
Politics	Laws and regulations, international trends, completion law, politics
Economy	Global economy, international trends, market size and value
Customer	Brand awareness, preferences, price and packaging, price, international trends, customer trends, population increase, customer environment, customer relationship
Technology	International trends, technology
Forces that was not clustered	Relationship, knowledge, competence, access to qualified labour force, business model, resources

Regarding the forces that were not clustered. These are forces connected to a specific company rather than the outside world and are forces companies can control. Therefore, they are not selected as a key force for the focal issue and the scenario development but are indeed important factors to bear in mind within competition in a market.

Furthermore, a quality check of the clusters was conducted with a milk packaging industry expert. This was done in order to secure that the categories were relevant and suitable for this thesis case study. From this interview the clusters were approved and a force called threat from value chain competitors was also added. Therefore, the identified clusters that have been applied in step two in the scenario planning process are; politics, economy, customers, technology and possible threat from value chain competitors.

5 The Competitive Battles Characteristics

Chapter four applies Christensen et al.'s idea about Competitive Battles on Elopak AS, Greatview Aseptic Packaging Company Limited, Krones AG and Schweizerische Industrie Gesellschaft Combibloc. Gathered data about each company is presented and then analysed according to the Competitive Battles theory. The results are later used in the scenario planning process in chapter 6.

5.1 Elopak AS

5.1.1 Company Presentation

5.1.1.1 Business

From the start in 1956 Elopak AS (Elopak) has been a company making packaging solutions for liquid food (Elopak AS (Elopak) 2015a; Elopak 2015b). It started with a license to sell the Pure-Pak® system in Europe. In 1987 Elopak acquired the Ex-Cell-O Packaging Systems Division and retrieved the Pure-Pak® license (Elopak 2015b). Until recently, Elopak has been a system supplier for packaging solutions. With the launch of Elobrick™, a roll-fed packaging material solution, Elopak extended their product portfolio and became more than a system supplier. Niels Petter Wright, Elopak's CEO says that Elopak has no intention to become a system supplier to roll fed carton packaging but their role as a system supplier for blank-fed filling will remain (Ferdmagasinet 2013).

5.1.1.2 Geographical Location

Elopak is a Norwegian based company. All around the world they have 13 manufacturing plants producing over 13 billion cartons (Elopak 2015a). Most of the plants are located in Europe in order to be close to their prior market. Even though Europe is a prior market Elopak is represented in over 40 countries and has business in over 80 countries (Elopak 2015a; Withworth 2012).

5.1.1.3 Products

Easily described, Elopak's product portfolio consists of three different types of cartons and Elobrick™. The different types of cartons are Pure-Pak® sense, Pure-Pak® classic and Pure-Pak® diamond, all of the cartons are gable-top cartons. Other services offered by Elopak are different types of printing techniques, paperboards, secondary packaging solutions, closing solutions and filling machines (Elopak 2015d). The customers have the possibility to choose between volume sizes, from 200 ml up to 5000 ml on the packages (Elopak 2015h).

5.1.1.4 Economy

Elopak's revenue and net profit the past years are presented in Table 5.1. Changes in Elopak's revenues are to a great extent caused by exchange loss rather than by change in sales (Ferd AS (Ferd) 2014). As Elopak operates in a business, which is less affected by cycles in the economy the sales volumes are expected to be stable (Ferd 2014).

Table 5.1. Revenue and net profit for Elopak, 2010-2013 (Ferd 2014; Ferd 2013; Ferd 2012 & Ferd 2011).

	2010	2011	2012	2013
Revenue (NOK)	6,200,000,000	6,100,000,000	5,864,000,000	5,967,000,000
Net Profit (NOK)	345,000,000	344,000,000	273,000,000	378,000,000

Elopak is 100 per cent owned by Ferd Group, a Norwegian private owned industrial and financial group (Elopak 2015a). The Ferd group had assets, in 2013, corresponding to a total of 27,375,338,000 NOK (Ferd 2014). Elopak stands for the major part of Ferd's total revenue (Ferd 2014).

5.1.1.5 Human Capital

Elopak has a labour force of over 2800 people (Elopak 2015a). Although Elopak is a Norwegian company, 95 per cent of the labour force is hired from outside of Norway (Ferdmagasinet 2013). In 2007 Elopak's CEO, Niels Petter Wright, were hired (Elopak 2015b.). He has a financial background and joined Elopak in year 2000 as CFO. Before starting his career at Elopak he worked as CFO for the automobile group Bertel O. Steen and prior that as Executive Vice President for strategy and finance at Dyno, a chemical conglomerate (Elopak 2015e).

5.1.2 Strategy & Mission

Elopak's mission is to *"preserving the world´s resources in a healthy, safe and sustainable manner, by providing liquid food paper packaging solutions"* (Elopak 2015f).

The focus strategy, for the near future, is to continue their move towards the aseptic market, i.e. increase the production capacity for aseptic filling (Ferd 2014). Geographic focus will be in Europe and the Americas (Withworth 2012). The new plants in Montreal and S:t Petersburg together with, recently restructured and upgraded, existing plants will give them the possibility to have a close connection to their customers and therefore grow in existing markets (Ferd 2014; Ferd 2013; Withworth 2012).

Furthermore, Elopak aims to have an environmental net impact that is equal to zero (Elopak 2015g). To reach their goal, Elopak work within different fields. For example Elopak recently launched cartons featuring second-generation renewable polyethylene. By replacing fossil-based polyethylene with bio-based polyethylene one of the largest source of CO_2 is taken away from the production (Elotalk 2015). Furthermore, Elopak has committed to meet the standards from the Forest Stewardship Council™ (FSC™) (Elopak 2015g). Elopak succeeded the deadline, set to 2018, when all production units gained FSC™ certification 14th January 2015 (Elotalk 2015). The focus on the sustainability work is differentiating them in the competitive market and is also adapting their business in a changing business environment (Elopak 2015h). Through accelerated work with sustainability Elopak believe they will be better positioned to compete (Elopak 2015h).

5.1.3 Tale of the Tape – Elopak

5.1.3.1 Resources

The product portfolio consists of three different types of gable-top cartons. Even though all of the cartons are available in different volume sizes Elopak might be limited in what they can offer to customer since all cartons are of the same type. There is no indication that increasing the product portfolio would be a part of Elopak's strategy to offer more value to customers. However the move to the aseptic market has increased the value offered to customers since they can supply a broader range of the market.

With Elobrick™ Elopak developed their business from only being a system supplier for blank-fed filling machines to also offering packaging material to roll-fed machines. With this Elopak can support companies that are operating on a competitors filling machine, with packaging material. This offer Elopak to gain market shares and revenues from a customer segment that have been unavailable before.

Elopak does not account their own assets but Ferd's assets are to some extent available for Elopak. Which of the assets that are possible to turn into cash within one year cannot be told since Ferd does not specify the assets in their annual reports.

Elopak's distribution network extends worldwide with presence in 40 countries. The presence takes Elopak close to their customers giving them the possibility to offer good services and support. The plants are concentrated mostly to Europe where the main market and focus of Elopak is. But Elopak also has plants outside of Europe.

With plants worldwide Elopak can shorten the delivery time to customer. Elopak's 13 manufacturing has at least a capacity on 13 billion packages since that is the number of packages sold[1].

5.1.3.2 Processes

Elopak has operated in the market for over 50 years. To build customer relationship as a system supplier is a process they have done before. Sales over 13 billion packages indicate that the process is successful. However the developed processes over the years might not be suitable for the future changes within the market. With Elobrick™ and a move towards the aseptic market Elopak's existing processes might become insufficient.

The work towards a zero net impact on the environment has made Elopak to commit to certain certifications. Elopak has implemented certifications before, which means that to become certified is a developed process that Elopak has. In situations where customers starts to demand certain certifications, or if new certifications are presented, Elopak has the ability to quickly implement the new certification. However, the certifications Elopak have, as a part of their sustainability work, reduces Elopak's ability to be flexible since standards locks organisations into a specific work processes.

Because of the work with restructuring and upgrading their manufacturing plants Elopak has probably developed a process for this kind of work. This can be important if the company wants to make changes in the production but does not want to invest money in a whole new plant.

5.1.3.3 Values

By introducing the aseptic paperboard, Elobrick™, Elopak aims to increase their market share in Europe, indicating that Elopak puts great value to the European market. Elopak puts great emphasis in sustainability issues in order to create value. Elopak strive to offer packaging solutions in a healthy, safe and sustainable way. That sustainability is of great value for Elopak reflects in their thoughts on an accelerating environmental work will differentiate them and give a competitive advantage towards competitors in the market.

Elopak has worked with an average net profit margin at 5.6 per cent during 2010-2013. The profit margins are presented in Table 5.2. The revenue has fluctuated a bit previous years as an effect of the exchange rates rather than a change in sales volumes.

[1] This number represents how many packages Elopak produced. It can therefore be assumed that the total capacity is higher than this.

Table 5.2. Elopak's net profit margin, 2010-2013 (Calculations made by authors[2]).

	2010	2011	2012	2013
Net profit margin	5.6 %	5.6 %	4.7 %	6.3 %

5.2 Greatview Aseptic Packaging Company Limited

5.2.1 Company Presentation

5.2.1.1 Business

Greatview Aseptic Packaging Company Limited (Greatview) entered the aseptic packaging market in 2001. Greatview is a supplier of aseptic packaging material with focus on the Chinese and European market (Greatview Aseptic Packaging Company Limited (Greatview) 2014a). In 2014 Greatview produced 11.2 billion packages with a total capacity of 21.4 billion packages (Greatview 2015f). In 2009 Greatview introduced a filling machine to the Chinese market and therefore became a system supplier in the Chinese market (Greatview 2015a). The filling machines are, so far, only available for Chinese customers (Greatview 2015a). Globally Greatview is the second biggest roll-fed supplier and in China they are the leading alternative supplier (Greatview 2014a). Greatview is listed on the Hong Kong Stock Exchange (Greatview 2015b). Greatview sell products within the dairy and non-carbonated soda drink (NCSD) segments (Greatview 2014a). Their main market is China and in the recent years Greatview has developed their international presence in for example Europe and North Africa (Greatview 2014a).

5.2.1.2 Geographical Location

Greatview has three different converting plants, two in China and one in Germany (Greatview 2015c). These plants had, in 2014, a total capacity of 21.4 billion packages (Greatview 2014b). The largest converting plant is called Gaotang and is located in China and supplies Greatview's Chinese and Asian customers (Greatview 2015c). The Gaotang plant recently finished a third production line that increased the total capacity with an additional four billion packages a year (Greatview 2014a). The second biggest plant is also located in China and is called Heelinger (Greatview 2015c). The Heelinger factory has a capacity corresponding to eight billion packages a year, and it is an environmental friendly plant that applies different energy saving solutions (Greatview 2015c). The newest, and so far, smallest plant is located in Germany. It is called Halle and opened in 2013 (Greatview 2015c). The plant corresponded to an investment of 50 million Euros and with a capacity of four billion packages annually it supplies Greatview's customers outside Asia (Greatview 2015c). It is planned to invest 38 million Euros in a second production line at the Halle plant that will increase the capacity with four billion packages annually (Greatview 2014a). Moreover the Halle plant has potential to increase its capacity to 16 billion packages (Greatview 2013a). Regarding the factories, Greatview says that they are technology

[2] The net profit margin is calculated by dividing net profit through the revenue for each year

intensive meaning that Greatview does not have that many employees at their factories (Shih 2011).

Furthermore Greatview has facilities in four different continents (Greatview 2015d). In Asia Greatview has one operating headquarter and two research and development centres, all three in China (Greatview 2015d). Furthermore Greatview has one operating headquarter in Switzerland and three representative locations in Brazil, USA and Mexico (Greatview 2015d).

5.2.1.3 Products

Greatview has seven products that are roll-fed compatible; these have volume spans corresponding to 200 millilitres, 250 millilitres, 330 millilitres and 1,000 millilitres (Greatview 2015e). All the packages are brick shaped and are either base or slim except the 330 millilitres package, which only exists in slim (Greatview 2015e). The best selling product is GA Brick Aseptic 250 ml base and the second top selling product is the GA Brick Aseptic 250 ml slim (Greatview 2014b). Moreover, in 2014, Greatview introduced a new product, GA Sleeve Brick, as a way to catch the demand for premium and portion sized products (Greatview 2015f**).** This product is a metallized aseptic board carton that is blank-fed and compatible with SIG's filling machines (Greatview 2015f)**.**

Furthermore, since 2009 Greatview became a system supplier in China, which has made them sell filling machines and equipment parts for the machines (Greatview 2015g). The filling machine is called Greatview Brick Aseptic ABM125 and has a production of 7,500 packs per hour (Greatview 2015g).

5.2.1.4 Economy

In 2014 the revenue for Greatview corresponded to 2,231.5 million RMB and the net profit was 279.7 million RMB (Greatview 2014a). The revenue and net profit from 2010 to 2014 are illustrated in

Table 5.3. The reason for the drop in net profit during 2014 was due to an average lower selling price and an increase in material costs (Greatview 2015f).

Table 5.3. Revenue and net profit for Greatview, 2010-2014 (Greatview 2015f; Greatview 2014a; Greatview 2013; Greatview 2012; Greatview 2011).

	2010	2011	2012	2013	2014
Revenue (million RMB)	1,160.3	1,574.1	1,744	2,159.5	2,231.5
Net Profit (million RMB)	201.2	263	314.9	317.2	279.7

Of the total revenue in 2013, 93.8 per cent came from the dairy sector; the remaining 6.2 per cent came from NCSD (Greatview 2014a). Furthermore, 86.1 per cent of the revenue was from the Chinese market and the remaining 13.9 per cent was attributed to the international market (Greatview 2014a). The contribution of each segment to the revenue is presented in Table 5.4.

Table 5.4. Revenue structure for Greatview 2010-2013 (Greatview 2014a; Greatview 2013; Greatview 2012; Greatview 2011).

	2010	2011	2012	2013	2014 (Interim Report)
Dairy (percentage of revenue)	78.3 %	86.7 %	93.7 %	93.8 %	91.4 %
NCSD (percentage of revenue)	21.7 %	13.3 %	6.3 %	6.2 %	8.6 %
China (percentage of revenue)	93.3 %	91.5 %	91 %	86.1 %	81.8 %
International (percentage of revenue)	6.7 %	8.5 %	9 %	13.9 %	18.2 %

Greatview had, in 2014, total assets corresponding to 2,894,005,000 RMB, were about 46 per cent of these stand for non-current assets (Greatview 2014b). The plants stand for the lion share of these assets (Greatview 2014b). The remaining 53 per cent are current assets where inventory, trade and other receivables, cash and bank balances and restricted cash stands for the following percentage distribution; 26, 29, 34 and 11 per cent (Greatview 2014b). Furthermore, the equity side corresponds to 2,171,159,000 RMB where the retained earnings and share capital consists of 48.7 per cent and 45.4 per cent respectively (Greatview 2014b).

Greatview's biggest customers are two of China's biggest dairies, Mengniu and Yili (Lau 2013). These customers contributed, in 2012, with 65 per cent of the revenues to Greatview (Lau 2013). And in 2013 Greatview supplied Mengniu with its 10 billionth package (Greatview 2014a).

5.2.1.5 Human Capital

Greatview has 1,250 employees throughout their organisation (Greatview 2014a). The senior management team consists of seven people with different expertise (Greatview 2014a). The names, roles and their specific expertise are presented in Table 5.5.

Table 5.5. Top management at Greatview (Greatview 2014a).

Name	Role	Specific "expertise"
Hong Gang	Co-founder, Chairman and recently retired executive Director	25 years of experience from the aseptic packaging market and had before Greatview held several executive jobs in another aseptic packaging company.
Bi Hua Jeff	CEO	17 years of experience from marketing development in the aseptic packaging sector. Have worked as marketing and sales manager in another aseptic packaging company.
Chang Fuquan	Chief Financial Officer	25 years of experience from financial management and has experience from several different industries, for example the automotive industry.
Chen Guining	Chief Technical Officer	22 years of experience from the aseptic packaging sector
Lan Qintang	Converting Director	26 years of experience from the aseptic packaging sector and converting.
Liu Jun	Recently promoted to Executive Director, was the former Chief Operating Officer	22 years of experience form management and technology intensive industries.
Yang Jiuxian	Sales Director	15 years of sales experience within the dairy and aseptic packaging business.

Hong Gang resigned from his position as an executive director in late 2014, although he stayed as chairman of the board (Greatview 2014b). Liu Jun took his place as an executive director (Greatview 2014b).

5.2.2 Strategy & Mission

The stated mission for Greatview is the following: "*Greatview's mission is to bring significant value to our customers in the liquid food industry by supplying a high quality, competitive and sustainable packaging choice. At the heart of our mission is choice and quality: providing a choice which empowers our customers, brand owners and co-packers, to claim their fair share of industry success; and the quality of our products which ensures that the choice we offer is true and dependable*" (Greatview 2015j).

Furthermore, Greatview's strategy is based on two parts. The strategy is formulated as the following: "*Firstly to continue to move towards a transformation into a multinational company in terms of its operational structure and model, to overcome cultural differences, to develop into a well established multinational company and to* *promptly expand the international market. Secondly, with a vision to stay ahead of our industry in terms of the results of operations and capacity growth*" (Greatview 2013b).

Based on the strategy Greatview has some prospects in order to succeed with their strategy and their mission statement. These prospects are (Greatview 2014a):

- Increase sales to the vital customers and to expand the customer base in China
- Further expand into the international market
- Improve the performance of the international team
- Centralise the management function so an efficient "plug & play" system, for capacity expansions outside China, can be created
- Enlarge their product portfolio
- Optimise production processes and their products
- Increase R&D regarding the filling machine

As an additional focus area to their strategic missions and positioning Greatview is focusing on the environment (Greatview 2015g). Greatview are certified by The Chain of Custody Certification (COC) and in 2013 more than 75 per cent of Gretview's cartons were produced from certified and sustainable forests (Greatview 2014a). Furthermore, Greatview has sustainable solutions in their production. For example, the Heelinger factory has sun power as an energy source and its design is constructed to minimise carbon footprint (Greatview 2015c).

Furthermore, Greatview sees themselves as challengers and want to increase competition within the packaging industry (Greatview 2015h). Greatview believes that choice creates value, which is their slogan. It means that the opportunity to choose supplier increases value for the customer (Greatview 2015h). This factor has made Greatview become a quality and affordable supplier. Regarding quality, Greatview source high quality wood and detect defaults in their products with the help of technology within the converting plants (Greatview 2015i). Furthermore, Greatview are certified with ISO 9001, which is a quality assurance certification (Greatview 2015i). Regarding price, Greatview are cheaper than the Chinese competitors, although the gap is shrinking (Shih 2011).

5.2.3 Tale of the Tape – Greatview

5.2.3.1 Resources

Tangible resources

Regarding the product portfolio Greatview has seven products with a small twist between the different products. A portfolio that consists of seven products is a small portfolio. This means that the value that can be offered towards customers is somewhat limited. They have a prospect to increase the product portfolio, which means that they would like to increase the ability to offer more choices towards customers. An indication that Greatview is increasing their product portfolio is the introduction of the GA Sleeve Brick, which became Greatview's eighth product.

Greatview has increased its revenue and profit the latest years. The revenue has increased, on average, with around 300 million RMB annually. This indicates a positive growth trend for the company. Although, in 2014 the net profit decreased compared to 2013, which was due to changed prices and material costs. What this means it hard to foresee but it can mean that Greatview might have to become more used to a lower growth in regards to net profit or that their cost structure are unfavourable for them at this level of revenue.

Regarding Greatview's assets, the organisation had, in 2014, assets equivalent to 2,894,005,000 RMB. Of these 46 per cent were non-current assets, which indicates that half of these are long-term investment and the remaining are operative assets in forms of receivables. This means that 1.3 billion are assets that can be turned into cash within one year. Moreover, Greatview has retained earnings that consist of 48.7 per cent of the equity, meaning that the company has power to invest money in potential growth areas.

The distribution network that Greatview has consists of seven different locations. These locations are in the areas of China, Switzerland, Brazil, Mexico and USA. That Greatview has location throughout the world shows that they have an ambition to reach out to the international market, which the growing revenue streams from the international market shows that they are beginning to do. Furthermore, Greatview has three converting plants where two are located in China and one is located in Germany. These converting plants produced 11.2 billion packages and had a total capacity corresponding to 21.4 billion packages in 2014. Meaning that the company's capacity utilisation was about 52 per cent in 2014. Furthermore, in 2014 the total capacity increased to 21.4 billion due to a new production line. Greatview has invested heavily in capacity expansions the latest years and there are more planned investments ahead. For example, if Greatview invest in new production lines for the Halle plant and the full capacity potential is gained Greatview will have a total capacity that corresponds to 32.4 billion packages. That Greatview has increased their capacity the latest years, and show potential to continue this trend, is a signpost that Greatview expect that their revenue streams will continue to grow and they want to have the right capacity to meet the future demand.

Intangible resources

Greatview has 1,250 employees and the senior management team have a lot of experience from the aseptic packaging industry. One of the Co-Founders, Hong Gang recently left his role as executive director, although his knowledge will still stay within the company through his role as chairman. Moreover, the top management have a broad spectrum of expertise ranging from sales and marketing to technology and financial management meaning that they have good prerequisites to gain synergies from each other. And as the top management have industry knowledge they understand how the market works, which gives them the ability to compete with the other big actors in the market despite that Greatview is a fairly new organisation.

5.2.3.2 Processes

One process that is reasonable to believe that Greatview has a process for is capacity expansions. The organisation has invested in both new plants and new production lines at the current plants which indicates that this is a task they have solved a numerous times. To have this process at hand allows the organisation to be more efficient in the process of investing and implementing capacity expansions. Although, it also makes them more standardised, if a capacity expansion demand another approach this can cause problems. As long as the capacity expansion are in countries where there are similar regulations it will not be a big problem.

Another task that Greatview has successfully solved is to build relationships with big clients. Greatview's biggest customers are China's biggest dairies and Greatview have successfully gained their trust and have supplied more than 10 billion packages to one of these. This indicates that Greatview are good in building relationships with big customers.

Greatview is certified through a couple of certifications. This indicates that they have a process to implement certifications within the organisation. This gives them the strength to gain credibility quick and can easily become certified if new relevant certifications are invented. At the same time, these certifications lock the organisation in a specific way of conducting their business, which is not always the best if they need to be flexible. Furthermore, as a consequence of certifications and a willingness to be environmental friendly Greatview has developed a process to source sustainable wood. This allows them to pursue this activity efficiently.

Since Greatview has had a quick growth in revenue, a process that they have succeeded to develop is the sales process. The organisation has grown quickly and sales are a part of that growth. A question that should be asked is if the process that exists today will be suitable when Greatview becomes even bigger. It could be efficient for now when Greatview is a challenger, but when they have earned their customers they also need to maintain these. Although, it seems like they have the capability to build relationships with customer based on their relationships with the Chinese dairies.

5.2.3.3 Values

Since Greatview's revenue mostly comes from the dairy market this market is their key focus area. 93.8 per cent of the revenues came from the dairy segment in 2013 and it grew from 78.3 per cent in 2010. This indicates that Greatview are prioritising the dairy segment. Furthermore, the average net profit margin during 2010-2013 has been 15.8 per cent. The net profit margins for each year are presented in the Table 5.6. This means that Greatview has a good net profit margin on their products.

Table 5.6. Net profit margin for Greatview, 2010-2014 (Calculations made by authors[3]).

	2010	2011	2012	2013	2014
Net profit margin	17.3 %	16.7 %	18.1 %	14.7 %	12.5 %

Other values that the organisation has can be developed from their strategy and mission statements. From the mission statement it can be deduced that Greatview value quality, price and sustainability. This means that Greatview is motivated to be a quality supplier that offers competitive and sustainable solutions. Furthermore, from the strategy other values that can be deduced. These are that Greatview prioritise to become a multinational organisation, expand in the international market and to be ahead regarding capacity growth. These values can also be deduced from the organisation's stated prospects. From the prospects three other values can be derived. These are that Greatview are motivated to increase their presence in the Chinese market, to improve the products and production processes and to enlarge the product portfolio. Many of these values can be seen through implemented decisions the organisation has made. The capacity expansion and penetration in the international market can be seen through their 50 million Euro investment in the Halle converting plant. The quality and sustainability values can be see through their quality control and sourcing of sustainable wood. The price value is in line with Greatview's slogan "Choice Creates Value" and that they are cheaper than their competitors in China. Regarding increased presence in China, it can be seen from their increased revenue the latest years, which indicate on an increased presence. Moreover, the implementation of the new product, GA Sleeve Brick, indicates that Greatview is motivated to enlarge their product mix.

5.3 Krones AG

5.3.1 Company Presentation

5.3.1.1 Business

Krones AG (Krones) was founded in year 1951. In year 2002 Krones started supplying filling machines for milk products (Krones AG (Krones) 2015c). Krones provides customers, e.g. breweries and cosmetic industries, with machinery and complete systems for filling and packaging. In 2014 Krones changed their organisational structure. The new management structure is based on Krones key processes. The three new business units are: Bottling and Packaging Equipment, Plants and Components and International Operations and Services (Krones 2015f).

[3] Net profit margin is calculated by dividing the net profits with the revenue.

5.3.1.2 Geographical location

Krones is a German company, which also is reflected by their locations of manufacturing plants. Krones has a total of 5 plants, all located in Germany (Krones 2015a). In addition to the manufacturing plants they have set up Lifecycle Service centres that provide customers with spare parts if needed (Krones 2015b; Krones 2014a). They are represented with a sales and service network in 79 countries worldwide (Krones 2015a).

5.3.1.3 Products

Throughout the years Krones has diversified their product portfolio (Krones 2015c). Today they offer products in plant engineering, process technology, filling technology, packaging, intralogistics and IT solutions (Krones 2015d). Working with PET bottles gives Krones's customers a possibility to actively give input on how to design the bottle (Krones 2015d). On the Drinktec trade fair in 2013 Krones presented DecoType, a new printing technology. The DecoType technology will add flexibility to customers and shorten lead times for products. DecoType enables printing without using labels, making customer independent of label suppliers (Krones 2015e). As the end product consists of plastic material the customers get a package where the end-customer can see the product inside and also a more lightweight package, giving it logistical benefits (Kaye 2011).

5.3.1.4 Economy

As seen in Table 5.7, the revenue decreased in 2013 compared to 2012. Despite that, the business volume grew. The decrease in revenue can be derived due to price pressures in the market (Krones 2014a). Krones's strive towards independency from banks meaning that Krones needs to create own capital. The business therefore needs to be profitable and decisions must have long-term awareness. By the end of 2013 Krones's had no bank debts (Krones 2014a)

Table 5.7. Revenue and net income for Krones, 2010-2013 (Krones 2014a; Krones 2013; Krones 2012; Krones 2011).

	2010	2011	2012	2013
Revenue (Euro)	2,173,300,000	2,480,300,000	2,664,200,000	2,251,200,000
Net Income (Euro)	50,900,000	43,700,000	68,900,000	55,900,000

Current assets, assets that in a fast way can be converted to cash, amounted to 901.0 million Euros. The current assets stand for 65 per cent of the total assets for Krones (Krones 2014a).

5.3.1.5 Human Capital

Krones aims to strengthen their after-sales services on a local basis. Therefore, hiring of people is mainly done outside Germany and that trend will continue (Krones 2014a). But still, out of 12,285 people 9,098 are working in Germany (Krones 2015c). Volker Kronseder is the present chairman for Krones. However Kronseder's contract expires in the end of 2015 (Packaging World 2015). Kronseder has informed the supervisory board that he is available for election to further contribute to the company's development. His successor will be Christoph Klenk (Packaging World 2015). Christoph Klenk started his career at Krones in 1994 and joined the executive board in 2003. In his Krones career he has held positions as Regional Manager Asia/Pacific and Head of Marketing. When elected for the executive board he became responsible for the R&D and design division. From 2011 he has been responsible for finance, controlling and information management (Krones 2015c). Today's executive board is presented in Table 5.8.

Table 5.8. Top management Krones (Krones 2015a & Krones 2014).

Name	Role	Previous work field
Volker Kronseder	Chairman Human Resources, Communications and Quality	Management
Christoph Klenk	Finance, Controlling and Information Management	Marketing
Rainulf Diepold	Sales and Marketing	Sales and Management
Thomas Ricker	Bottling and Packaging Equipment	R&D
Markus Tischer	International Operations and Services	R&D, Finance and Controlling
Ralf Goldbrunner	Plants and Components	Production operations

5.3.2 Strategy & Mission

In 2011 Krones launched their Value Strategy Programme. The programme is based on four areas: innovation, quality, profitability and growth (Krones 2015f). The strategy is aligned with Krones's mission statement to keep their position as a technology leader (Krones 2015a). The implementation of the Value Strategy Programme has not come to an end and will continue until the implementation is completed. Krones aims to get a closer connection to their customers after the implementation (Krones 2014a). The programme has four core areas: innovation, quality, profitability and growth (Krones 2015f). In order to improve profitability Krones has a focus on lowering their cost, as they see it as the only way to improve their profitability (Krones 2014a). The R&D strategy is to have the customers' needs in mind. At least one of the four pillars has to be fulfilled if it should be of interest. These four pillars are, directly quoted (Krones 2014a p. 45):

- "Cost-effective machines and lines with low total cost of ownership"
- "High availability and fast changeover and start-up times"
- "Ease of operation"
- "The utmost in production reliability"

Krones is willing to make acquisitions as a way to consolidate their position in the market (Krones 2014a; 2015a). A strong net cash position gives Krones the possibility to make acquisitions if wanted. Every investment is carefully considered since Krones does not want to take any large risks (Krones 2014a). Krones has stated that their interest for acquisitions is mainly in firms developing process technology, i.e. safe storage and cleaning, and information technology, i.e. IT solutions to improve efficiency (Krones 2014a).

5.3.3 Tale of the Tape – Krones

5.3.3.1 Resources

Tangible resources

Krones can with their broad product portfolio offer great value to their customer. Flexible design and sizes of the plastic packages together with other services e.g. solutions in plant engineering and IT solutions contributes to Krones's value toward customers. Operating in these areas makes it easier to customise a solution for every customer. New innovations, such as DecoType, are continuously adding value so Krones can consolidate their position in the market.

Krones's manufacturing plants are located in Germany. Krones's Lifecycle Services centres and their representatives in 79 countries together with the aim to further increase their labour force outside Germany shows an ambition to improve their position in the international market.

Intangible resources

When Klenk takes over as chairman of the board, he stands for new tasks he has not faced before. The main task Klenk stands before is the changed organisational structure, which Klenk is not familiar with. This is a challenging task Krones are facing but with their broad spectrum of expertise in the executive board Krones are well suited for this task.

5.3.3.2 Processes

With the capability to offer customers support within a broad spectrum, from factory planning to machines and IT solutions Krones has built up processes for customer services. Sales-, support and service offices worldwide supports their customer services and their processes for customer-care.

Krones has through their company history always been willing to go into new product segments to create more customer value. To have knowledge about the process to establish a new product segment is valuable if there is a sudden change in the market. Krones's history indicates that they can handle the process and therefore are in a good position to seize opportunities. Which indicates that, if there is a change in the market, Krones can gain a competitive advantage against competitors.

Furthermore, being in the business for over 60 years and not having any bank debts indicates that their processes to work for long-term growth and business are successful.

5.3.3.3 Values

Between 2010-2013 Krones operated with an average net profit margin corresponding to 2.2 per cent. The net profit margin for each year is presented in Table 5.9**.** The revenue has fluctuated a bit previous years but the sales volume has increased and the loss in revenue depends on price pressures. Since Krones operate with a net profit margin below three per cent, a decrease in price on their offered products and services continue to decrease may affect Krones's business negative.

Table 5.9. Krones's net profit margin, 2010-2013 (Calculation made by authors[4]).

	2010	2011	2012	2013
Net profit margin	2.3 %	1.5 %	2.6 %	2.5 %

Krones's values lays within their Value Strategy Programme. In order to fulfil the profitability Krones work towards lower costs. A focus that can prevent them from seizing opportunities. Furthermore, according to Krones's mission statement new innovations and willingness to acquire technology intensive firms indicate that these are, in addition to the cost focus, prioritising areas that they believe will add a competitive edge to their organisation.

5.4 Schweizerische Industrie Gesellschaft Combibloc

5.4.1 Company Presentation

5.4.1.1 Business

Schweizerische Industrie Gesellschaft Combibloc (SIG), was founded 1853 in Switzerland (SIG 2015a). Throughout the history SIG has produced weapons, machinery and tools. SIG entered the packaging industry in 1944 and started to package soap and chocolate bars (SIG 2015a). SIG first entered the beverage packaging industry in 1980 through the purchase of a packaging chain (SIG 2015a). In 2000, SIG refocused their strategy, i.e. focusing only on the beverage segment (SIG 2015a). In 2004 SIG was sold for the first time, to Robert Bosch Packaging Technology (SIG 2015a). SIG was sold again in year 2008 to Salzgitter AG (SIG 2015a). SIG's latest ownership shift occurred in 2015 (SIG 2015a). The buyer was ONEX, a private equity investment firm, which bought SIG from Reynolds Group Holdings Limited (SIG 2015a). Now SIG is active in the dairy beverage industry and is mainly focusing on the aseptic carton packaging market (Reynolds Group Holdings Limited 2014).

[4] Dividing the net profits with the revenues for each year makes the calculation.

SIG is the second largest supplier of aseptic carton packages and systems (ONEX 2014). SIG also offer technical support, spare parts and packaging materials (SIG 2015b). SIG has around 15,000 spare parts and a supply network of 400 manufactures (SIG 2015c). SIG's packaging system is based on blank-fed filling machines (SIG 2015b). SIG's customer base is composed of several customers. No customer had more than ten per cent of the total revenue in 2013 and the ten largest customers compile 37 per cent of the revenue (Reynolds Group Holdings Limited 2014). In 2014 SIG produced over 30 billion packages for over 10,000 products in over 40 countries (SIG 2015a).

The competition in the dairy packaging market is increasing and SIG faces competition, particularly from packaging material suppliers whom are not system suppliers (Reynolds Group Holdings Limited 2014). These suppliers focuses on the production of carton material, which removes capital costs associated to production of filling machines, leading to that these competitors can offer cheaper packaging material (Reynolds Group Holdings Limited 2014). This opens up the market for new entrants and it may lead to an increased price competition (Reynolds Group Holdings Limited 2014).

5.4.1.2 Geographical Location

SIG operates in a global market and has sales worldwide. SIG operates ten aseptic carton manufacturing plants located in seven countries spread out in Asia, Europe and South America (SIG 2015a). At three of these manufacturing facilities SIG manufactures filling machines and components (SIG 2015a). SIG also runs a paper mill located in New Zealand (SIG 2015a).

5.4.1.3 Products

SIG offer a range of different filling machines with various capacities. The large format filling machines have a production speed of 9,000 carton packages per hour while the medium format has an output of approximately 12,000 carton packages per hour (SIG 2015b). For smaller volume packages there are two types of filling machines, both with a capacity of 24,000 packages per hour (SIG 2015b).

The filling machines offer a variation in shape and size of the packages. SIG has a wide range of package sizes, varying from 80 to 2,000 ml (SIG 2015b). The design of the packages is divided in categories called Combibloc, Combifit, Combidome, Combibloc EcoPlus and Combishape (SIG 2015b). Within these categories there are different packaging models, more or less to the same extent, e.g. small, slim, mini, midi, magnum, maxi and premium (SIG 2015b). The filling machines have the possibility to produce more than one design and package size (SIG 2015b).

5.4.1.4 Economy

SIG is the second largest dairy packaging company. SIG have had a steady increase in revenues and gross profits during 2010 to 2013 (Reynolds Group Holdings Limited 2012, 2014). Table 5.10 displays SIG's revenues and gross profits.

Table 5.10. SIG's revenue and gross profit for 2010 to 2013 (Reynolds Group Holding Limited 2012, 2014).

	2010	2011	2012	2013
Revenue (million dollar)	1,846	2,036	2,076	2,228
Gross profit (million dollar)	464	439	525	571

SIG's owner, ONEX, is a private equity investment company. For 2014 ONEX had current assets worth 10,554 million $ and non-current assets was valued to 16,388 million $ (ONEX 2015).

SIG's research and development costs have increased slightly the recent years. Table 5.11 shows these numbers.

Table 5.11. R&D costs, excluding amortisation (Reynolds Group Holding Limited 2013, 2014).

	2010	2011	2012	2013
R&D costs (million dollar, excluding amortisation)	46	53	53	59

5.4.1.5 Human Capital

The human capital at SIG consists of a workforce corresponding to about 5,100 people (SIG 2015d). SIG's executive board consists of five members, whom are presented in Table 5.12.

Table 5.12. SIG's executive board and information regarding earlier positions and experience (SIG 2015a).

Name	Position	Experience
Rolf Stangl	Chief Executive Officer	Has a B.Sc. in Business Administration. He has had several management positions, such as Chief Market Officer and Head of Corporate Development.
Markus Johannes Boehm	Chief Market Officer	Has had several other management positions such as Chief Executive Officer as well as Finance Director. Has a B.A. in Political Science and B.Sc. in Economics.
Lawrence Fok	President & General Manager Asia Pacific	An engineer whom has worked as a General Manager and Regional & Marketing Director. Came to SIG in 2012.
Marco Haussene	Chief Financial Officer	Has a B.Sc. in Business and have earlier been the Head Manager, Chief Financial Officer and other management positions. Joined SIG in 2000.
Samuel Sigrist	President & General Manager Europe	Has had a different management position. Samuel joined SIG in 2005.

5.4.2 Strategy & Mission

SIG’s vision is to become the first choice for carton packaging solutions, which they want to achieve by delivering superior and unique value to their customers (SIG 2015a). SIG also state that they work towards their vision by focusing on efficiency, quality and innovation on time as well as with fruitful cooperation with customers (SIG 2015a).

SIG’s mission is to add value to the customers through superior and price competitive packaging solutions, while being environmentally friendly and committed to every customer's success (SIG 2015a). SIG states that their mission also reaches towards respect, support, encourage, trust and reward to their employees (SIG 2015a). The mission further states that SIG provides career development opportunities (SIG 2015a).

SIG put emphasis on research and development. SIG state that innovation is a tool to keep the company's market position, grow in emerging markets and to enter new markets (Reynolds Group Holdings Limited 2012, 2013, 2014). SIG’s innovations are mostly driven by cost optimisation, opening and pouring performance, robustness of the systems as well as product integrity (Reynolds Group Holdings Limited 2012, 2013, 2014). In a press release (SIG 2014) SIG states that the transfer of ownership will not affect their business model - to continue growing the company based on a long-term perspective. They want to keep their market position and focus on their current customers. SIG’s vision is to be the first choice within the packaging industry (SIG 2015a). SIG’s strategic focus is to increase the robustness and output of their filling lines. They also state that product quality and integrity, competitive system cost, environmental sustainability, availability of new technologies and SIG's margins are factors that affect the development of new products (Reynolds Group Holdings Limited 2014). SIG has had this focus and way of thinking since 2011 (Reynolds Group Holdings Limited 2012, 2013, 2014).

5.4.3 Tale of the Tape – SIG

5.4.3.1 Resources

SIG has a large product portfolio, consisting of five different package designs and a wide variation of sizes and shapes. This gives SIG a competitive edge since they can differentiate themselves. The flexibility in the machines, being able to produce different designs and sizes in the same machine, is also something that offers the customers an option to change and adapt to variations in the market demand.

SIG do business in over 40 countries and have production sites in Asia, Europe and South America. In order to reach out with their products to 40 countries a well-developed distribution network is required.

SIG has increased their revenue, with 2-10 percentage per year, from 2010 to 2013. The gross profit on the other hand has not increased annually, although it increased 23 per cent between 2010 and 2013. The fact that SIG's strategy has been the same for several years and that ONEX state that they want to keep SIG's strategy, to grow the company in a long term perspective, reveals an indication that SIG will not do any big changes and therefore stay in their current course. Something that further strengthens this indication is that SIG want to keep their market position. SIG also focuses on increasing their robustness and output of their filling lines as well as the customers SIG already has.

SIG has a working force with over 5,100 employees. The five members of the executive board have different backgrounds. More than half of the board members have a degree in business.

5.4.3.2 Processes

SIG has, since the company was founded, changed their organisation at several occasions, both changing industry and ownership. These changes have made the company to change in order to adapt. It can therefore be assumed that organisational changes are a process that SIG is good at.

Product development is something SIG believes is a tool to keep their market position, grow in emerging markets as well as enter new possible markets. SIG's big product portfolio shows that they work with R&D. Therefore both product development and R&D can be interpreted as processes SIG have developed.

Furthermore, it can be assumed that SIG has a process when it comes to handle multiple customers and suppliers. Their customer base consists of several customers and at the same time they have over 400 suppliers. Therefore SIG is required to have a smooth and organised coordination and logistical process in order to keep up with such a network of companies and partners.

5.4.3.3 Values

SIG values relationships with employees, customers and suppliers. They work with a large amount of suppliers and say that they wish to focus on their current customers.

SIG's focus lays in an improvement of their robustness and output capacity of filling lines, indicating that they value these two particular properties. SIG also values innovation to a large extent. The costs of R&D, as an indicator of innovation, have increased with 28 per cent from 2010 to 2013. Innovation is what SIG believe will make them grow in emerging markets, enter new possible markets and keep their market position. The focus on keeping their position in the market means that SIG will continue to build relationships and strengthen trust with their current customers. SIG's values indicate that the company is focusing on developing the organisation, keeping current customers and investing in R&D. This might make them miss opportunities to sell to new customers within the market since their focus is rather internal than external.

Furthermore, SIG's average net profit margin has been, between 2010 and 2013, 8.1 per cent. The net profit and net profit margin is shown in Table 5.13.

Table 5.13. SIG's net profit margin, 2010-2013. *(Calculations made by authors[5]).

	2010	2011	2012	2013
Net profit* (million dollar)	155	146	175	190
Net profit margin (per cent)	8.4	7.2	8.4	8.5

5.5 Asymmetric Motivations and Skills

The outcome of the competitive battles that take place will be characterised by the asymmetries that exist between the firms. Geographically there is a difference, where Elopak has their strongest motivation in the European market meanwhile Greatview's focus is mainly in the Chinese market, even though they want to become more international. Neither SIG nor Krones have pronounced a specific geographical focus. Their motivation lies in developing relationship with existing customer. There are two segments of filling solutions, aseptic and non-aseptic. SIG and Greatview have their majority of business in the aseptic segment. On the opposite side Elopak operates in the non-aseptic segment. However, Elopak has started to penetrate, and is focusing on, the aseptic market as well. Krones develop solutions for both segments and has not claimed focus in either of them.

All companies offer packaging solutions to the customer but their product portfolios differs. Krones is the company that profiles itself most. Firstly, Krones's packaging solutions are flexible. Secondly, their product portfolio contains IT-solutions, plant engineering etc., which the other companies does not offer. The other companies have more similar product portfolios since all contains paperboard solutions. Greatview has the smallest product portfolio and does only offer eight different cartons meanwhile SIG has the biggest product portfolio. This means that SIG has the ability to offer their customers a bigger variety of products, and therefore they can offer more value. One thing that can matter is what type of cartons the companies offer, which differs between the companies. Gable top might be more convenient for the end customer meanwhile the brick solution have logistical benefits instead.

Krones believes that their customer orientation will diversify them from other companies and therefore Krones put greater efforts in existing customer relationships. Krones is also focusing on lowering cost and Krones's motivation is not

[5] The same revenue and net profit ratio as accounted in the joint venture with Obeikan is applied. The ratio is one third (Reynolds Group Holdings Limited 2014)

directed towards grabbing new market shares. This approach is similar to SIG who also claim existing customer relationships as a high priority. Elopak and Greatview put greater efforts in overtaking customer, this can be seen through Greatviews's new blank-fed paperboard packaging solution and Elopak's enter in the aseptic market. Greatview has also clearly indicated that they want to expand their business, both in the Chinese market and in the International market. Another asymmetric motivation that exists, according to the Competitive Battles theory, is the size of the companies, see Table 5.14 for the companies' revenue in 2013. It can be derived that, according to revenue, Krones is the biggest company and that SIG is the second largest company and are about six times as big as Greatview. Greatview is the smallest company and Elopak is the second smallest. Based on this, opportunities that are perceived as small for Krones and SIG are perceived as big for Elopak and Greatview. This means that the companies have different perceptions about what opportunities that are of interest.

Table 5.14. Revenue comparison[6].

	Elopak	Greatview	Krones	SIG
Revenue in 2013 (million euro)	707,835,000	256,544,000	2,251,200,000	1,618,260,000

Furthermore, the organisations have different perspectives about what creates value towards the customer. From this, asymmetric motivations are created. Elopak believes that they can create value towards their customers by accelerating sustainability work and in that way gain competitive advantage. However all companies, except Krones, shows signs of working with sustainability and integration of certifications into their working processes. Yet, Elopak is the most distinguished company within this area. Meanwhile, Greatview are competing by branding themselves as a quality and price competitive supplier that tries to challenge the bigger suppliers. Greatview has a clear expansion focus where they are focusing on expanding their business, both in China and internationally. SIG on the other hand, believes that they create the biggest value by building good relationships and offer new solutions as a consequence of their innovation focus. Moreover, SIG is focusing on maintaining their existing customers rather than penetrating new customer segments. Furthermore, Krones's approach is similar to SIG's in means of focusing on current customers and innovation. Although, Krones differ from the other companies, the greatest asymmetry will be in the offered products. Since Krones supplies plastic solutions, as the other does not, customer preferences are likely to have strong impact on Krones's success within this competitive battle.

[6] The revenues are converted from the data presented in chapter five. The converting was done at www.oanda.com, using the buying course for each currency by the 31th of December 2013.

As seen in the text above, the companies have different focus areas and have different perspectives about what factors that create value towards the customer. This means that there is an asymmetric motivation and that their competitive actions will differ. Depending on what the customers appreciate there will be different levels of success for the companies' competitive moves.

6 Scenario Analysis, China

Chapter six presents a scenario analysis for the milk packaging industry in China by 2025. In order to present a scenario analysis and fulfil the purpose of this thesis the theory about Competitive Battles is integrated in Schwartz scenario planning process. In this chapter, the scenario planning process for China is presented. In Appendix G, H and I India's, Mexico's and Turkey's scenario planning processes are presented.

6.1 Scenario Analysis According to Schwartz

6.1.1 Identify Focal Issue or Decision

The focal issue for this scenario creation is: What does the competitive situation, in India, within the milk packaging industry look like in 2025.

6.1.2 Key Forces in the Local Environment

The key forces in the local environment are the categories politics, the economic situation, the consumers, technology and possible threat from value chain competitors. These areas have been identified from the empirical study in chapter 4 and therefore these areas have been researched further. The gathered data within each of these categories are presented in Appendix B, C and D.

6.1.3 Driving Forces

From the gathered data, in Appendix B, C and D**,** the authors have identified driving forces and trends. These are illustrated in Table 6.1**.**

Since these forces are deduced from information that is presented in the appendix each category is shortly summarised here. For the interested, a more comprehensive presentation of the gathered information can be seen in Appendix B, C and D.

Regarding politics, the political situation in China has two areas that have huge influence in this scenario analysis. The first is that there is a trend towards increased protectionism. This is identified from the fact that China has implemented stricter regulations towards foreign companies. It is also identified from the initiative to consolidate the dairy industry. The Chinese government wants to create big dairies that are called champions. This is due to the fact that the Chinese consumer lack trust towards the domestic brands and the consolidation is though to counteract this. The consolidation shall also lead to an increased competitiveness of the champions so they can be more competitive towards international companies. One of the goals of this initiative is that the champions shall have a market share of about 70 per cent in five years. The other force is the Food and Nutrition Development Plan (FNDP). This is an initiative to increase the consumed milk in China. The goal is to increase the milk consumption from about 15 millilitres per day per person to 100 millilitres per day per person.

Regarding the economical situation, there is a favourable situation for the dairy market in China. Furthermore, there is basically growth in most of the sectors within the country, which has lead to an increased disposable income for the population and a general better welfare.

Regarding the Chinese customers. The total population is increasing and is expected to continue to increase. The Chinese consumer demand quality and are brand conscious. Furthermore they are digitally active and the E-commerce market in China is in a positive growth trend. The dairy market is growing and more Chinese consumers are consuming dairy products to a greater extent than before. The dairy consumption is mostly of international brands that have about 60 per cent of the dairy market share in China. This is due to distrust to domestic brands that has been caused by milk scandals.

Regarding the technology force there are several different technologies that can be successful in a soon future. Some of the trends that technology helps with are identified, it should also be mentioned that these trends are regarded as global since technology does not have country boarders.

Regarding value chain competitors there are no indications that the two actors, which are analysed within the frame of this thesis, would like to integrate their organisations into the milk packaging market.

Table 6.1. Driving forces for China (identified by the authors).

Politics	Economics	Customers	Technology	Value Chain Competitors
• Pressure from the people • Protectionism • Increasing environmental awareness • Food and nutrition development plan • Consolidation of the dairy sector	• Increasing GDP • Increasing disposable income • Growth in export & import • Increase in the dairy market • Increasing UHT-consumption • Growth in milk imports	• Population growth • Demand for quality • Scepticism towards domestic dairy brands • Growth in milk demand • Demand for convenience and speed • Disloyalty • Brand consciousness • Digitally active • Increasing consumption • Urbanisation • E-commerce • Health awareness • Product awareness • Single served milk	• Differentiation • Digitalisation • Convenience • Shelf-life • Sustainability • Traceability	• Arla Foods AB • Stora Enso

6.1.4 Importance and Uncertainty Ranking

The forces in Table 6.1 have been ranked by uncertainty and impact. The ranking of the forces are presented in Appendix E.

6.1.5 Selecting Scenario Logics

The internal relation between the forces and how they impact each other are presented in Appendix H. The forces that had the biggest uncertainty and impact, and where exclusive to each other, in this scenario analysis are protectionism and the success of the Food and Nutrition Development Plan (FNDP). This means that the scenario logics is built around these two pillars. Figure 6-1 illustrates how the scenarios are built up. A successful FNDP means that, in 2025, the daily consumptions of milk for the Chinese consumers are 100 millilitres per person. This goal will be reached in 2020 and the demand will continue to 2025. Meanwhile a failed FNDP corresponds to a daily consumption on 15 millilitres a day per person, is assumed to continue from 2014 to 2025.

6.1.6 Fleshing Out the Scenarios

Within this chapter four different potential future worlds are created. These are presented in Figure 6.1.

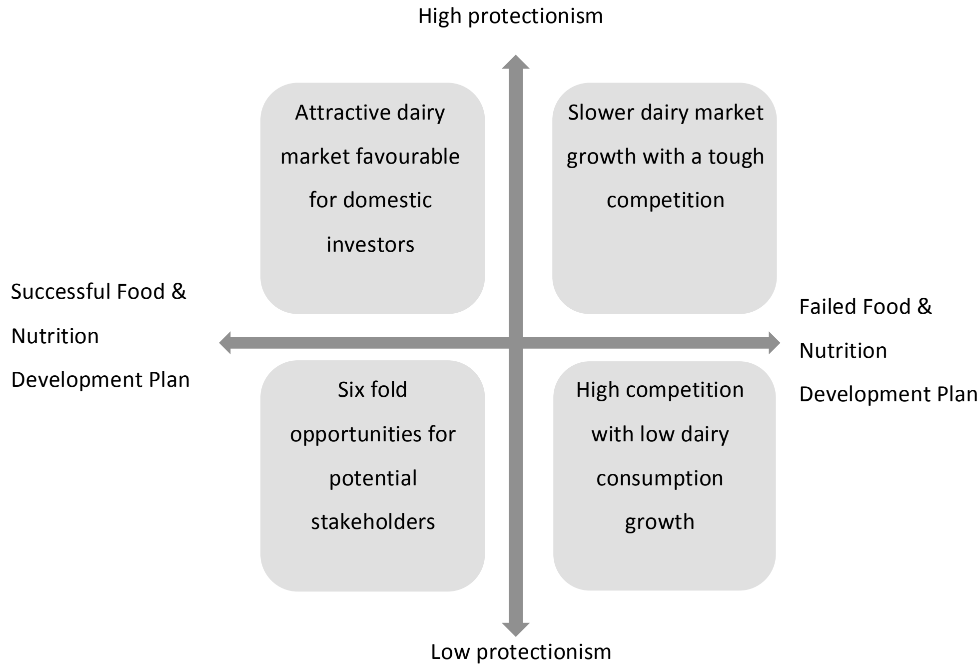


Figure 6.1. The constructed scenarios.

World one – Attractive dairy market favourable for domestic investors
High protectionism and succeeded food and nutrition development plan

In this world China has a high protectionism and the FNDP has succeeded meaning that the Chinese customers consume 100 ml of milk per person per day by in 2025.

The protectionism that the politics in China applies is due to an experienced threat to the national organisations and market. The Politics implement stricter laws and regulations that give national actors an advantage. Furthermore, the consolidation of the dairy sector is continued as planned in order to strengthen the customers' trust in the domestic dairy brands. Moreover, the consolidation creates competitive dairies called champions. The consolidation allows for better control of the dairies by the state and therefore the consumers' trust for domestic brands increases, which leads to increasing sales of domestic dairy products. The increased trust in combination with the competitive champions leads to a 65 per cent market share of the Chinese dairy market for the Chinese dairies by 2025. This is below the set goal for the consolidation and the reason for this is that the FNDP succeeds, which leads to an increased demand for milk. If UN DESA's population forecast were applied the total milk demand would be 52,887,916 tonnes per year[7]. This corresponds to a seven-fold increased milk demand[8]. This enormous growth leads to a capacity deficit in the Chinese dairy sector and it cannot supply the market demand. In order to supply the milk demand, imports are necessary, although the milk imports are decreased compared to the year of 2015 since the champions have developed a bigger capacity than before. The trend of increased milk imports is therefore reduced.

The public health campaign, advertisement and education about nutrition within the FNDP are successful, which increases the milk demand in China. It also further strengthens the health awareness trend that exists in China, whereas milk becomes a part of a healthy lifestyle. The success of these campaigns leads to an increased milk demand and as a consequence the dairy market growth will increase more than if only the incremental demand, from the population increase, was taken into account. The increased milk demand threatens the protectionism in China since China has trouble supplying the milk demand. This means that the Politics in China will increase the milk production capacity by investing heavier in the consolidated dairy champions. Although, the growth in milk production capacity will not be able to keep up with the increased milk demand meaning that there will be some need for milk import, however, it will decrease the milk import significantly.

Other indirect forces that this world will lead to is an change in GDP, the import will decrease at the same time as milk consumption will increase, meaning that there will be an effect on GDP. The affect will not have substantial impact on the GDP.

The consequences of this world is that the Chinese market will have an increased dairy market growth, which will be interesting for investors due to the potential of the market. Although, the potential will be easier to seize for domestic investors since the increased protectionism will make it harder for foreign organisations to enter the market.

World two – Slower dairy market growth with a tough competition
High protectionism and failed food and nutrition development plan

The high protectionism in China follows the same pattern as the above-mentioned world. The biggest difference is that the consolidation will have a bigger impact in this world since the FNDP fail. The consolidation will overshoot the goal of the consolidation, meaning that the wanted 70 per cent market share of the Chinese dairy market in 2020 is reached easily and the market share gain continues, and in

[7] The calculation is based on a milk demand corresponding to 100 millilitres per day per person and a total population of 1,448,984,000. Giving a yearly milk demand per person corresponding to 36.5 litres.
[8] The seven-fold increase is compared to a daily milk demand corresponding to 15 millilitres per person and a population of 1,448,984,000.

2025 the champion dairies reach a 85 per cent market share. The reason for the 85 per cent market share is based on the fact that the FNDP has failed and that the champions quickly conquer the market. The failed FNDP means that the dairy market will only grow in alignment with the population increase. This means that it is easier for the champions to conquer market share. The reason for the quick conquer of the market by the champions is partly due to the increased trust towards domestic brands and partly due to the fact that the slower growth in milk demand gives the champions an opportunity to develop their capacity and meet the national demand to a greater extent. A consequence from this setting is that the milk imports would decrease.

The FNDP fail due to unsuccessful public health campaigns, bad advertisement and low attendance during the education about nutrition. Instead, the Chinese people continue with their regular food consumption and the milk consumption stay at 15 ml a day per person. Leading to a total market demand for milk corresponding to 7,933,187 tonnes[9]. This would mean an incremental increase of 6.88 per cent compared to 2014, if the same amount was consumed per day.

The main take away from this world is that the growth in the dairy market will be reduced and grow in alignment with the population growth. Furthermore, the high protectionism will create barriers for foreign brands to enter and operate within the market. These brands will be more expensive than the domestic, and since the consolidation strengthens the trust in domestic brands these will be chosen before international brands. Furthermore, the competition within the market will be tough, the consolidation will make the champions to rule the market by the help of cost advantage.

World three – Six fold opportunities for potential stakeholders

Low protectionism and succeeded food and nutrition development plan

In order for this world to develop there are two different pathways that needs to be true. These are that the protectionism of the Chinese political policies becomes decreased and that the FNDP regarding milk becomes successful, in other words that the Chinese customer will drink 100 ml of milk per person per day in 2025.

The first cogwheel in order for this world to develop regards the protectionism in China. The low protectionism is implemented since China does not want to endanger their historical growth just to protect the national market. Therefore the identified trend regarding increased regulations that makes it harder for foreign companies to import and export to China is reversed. The Chinese state leaves the thoughts about

[9] The calculation is based on a milk demand corresponding to 15 millilitres per day per person and a total population of 1,448,984,000. Giving a yearly milk demand per person corresponding to 5.475 litres.

implementing stricter laws and regulations within this area and follow the regulations of WTO. As a consequence it will be easier for foreign actors to enter the market. In other words, the entry barriers towards China will loosen which can lead to increased competition. It will also lead to an increase in export and import that will affect GDP in some direction. Since GDP will be affected by the success of the FNDP, the trend is hard to foresee. It can be assumed that GDP will continue to increase, which has been the case for decades. The change in GDP will not affect this world substantially. Furthermore, the consolidation of the dairy sector, which was implemented during protectionism views, will continue since it was a big investment that could not be aborted. The authorities rationalise it as an initiative to increase the trust in domestic brands rather than to increase the competitiveness of the champions. The consolidation leads to an increased market share in China for the Chinese champion dairies in 2025 due to increased trust for these brands. Although, the goal to reach 70 per cent market share in the Chinese market will not be met since the focus is only to increase the trust for Chinese brands and not to expand capacity or competitiveness. And since Chinese customers are disloyal there is nothing saying that they only will buy Chinese milk due to an increased trust. Moreover, to build this trust takes time, which gives foreign brands a head start for a few years when the trust it built up. This means that the dairy sector's market shares in China will stay at around 60 per cent for international brands, and when the trust for domestic brands is increased, the market share develop to 50/50 percentage split between foreign and national brands[10]. Although, it takes time to build trust and China has not succeeded to strengthen it since 2008, based on this it can be derived that five years have had a small impact, another five years with increased initiatives to increase the trust could give yield in 2019-2020. This means that international brands have a few years to take advantage of their benefit.

The second key cogwheel is that there is an increased demand for milk. The demand for milk will increase by the help of the Chinese state that will conduct public health campaigns, apply advertisement and offer education about nutrition. The campaigns are successful and the people follow the newly gained knowledge. This will further strengthen the health awareness trend that exists in China, and it will further strengthen the view of milk being healthy. From these factors the daily milk demand will increase to a 100 millilitres a day per person and the market reaches a total market demand that corresponds to 52,887,916 tonnes, as in world one. Furthermore, the total milk demand will increase due to the increased population in China.

The development within this world has consequences on forces that have not yet been mentioned. The other forces that will be affected of this world are the growth in the dairy industry and the country's GDP. The increased milk demand together with the trend that the disposable income in China is increasing will lead to an enlarged private consumption. The increased consumption, due to increased milk

[10] The market share for the milk segment is assumed to have the same distribution as the dairy sector

demand and more money, will lead to an increased growth within the dairy market in China. This is something that will make the market attractive for investors, both foreign and national. Since it is in a world with low protectionism there will be equal opportunities for foreign and national investors. Furthermore, the increased milk demand leads to increased milk imports. The reason for the increased milk imports is based in the fact that the demand for milk increases and the Chinese dairies are not able to increase their milk production capacity accordingly. This leads to a continued milk deficit and the import trend continues. It is estimated that the milk deficit will be 35,520 tonnes in 2024. The increased milk import, will affect exports and imports and therefore the balance of trade.

The sum of this world indicates that the low protectionism and the succeeded FNDP increase the milk demand six fold, without adding the incremental growth from the population increase. Furthermore, the trust in domestic brands is expected to increase, which will strengthen the domestic brands competitiveness. This situation has potential for investors to earn money and both international and domestic actors will be interested to seize the opportunities in China. This leads to an increased competition in this market.

World four – High competition with low dairy consumption growth
Low protectionism and failed food and nutrition development plan

In order for this world to develop there are two forces that becomes realised, these are that the protectionism in China is low and the FNDP fails indicating that the Chinese people will drink less than 100 ml milk per day during 2025.

Regarding the low protectionism, the same rationale as in the other low protectionism world has been applied. In short, this means that there will be less regulations and laws, which will increase the trade with the rest of the world at the same time as the entry barriers for foreign actors decreases. Furthermore, the consolidation of the dairy industry will be implemented with the purpose to strengthen trust in the domestic dairy brands. Moreover, the same rationale, regarding market shares, is applied. Although, even if the market share logic stays the same, there will be a smaller market. This is due to the fact that the FNDP fail and the milk demand does not increase as radical as in world three.

Regarding the failed FNDP, the advertisement, education and health campaigns that China's state applies do not have the expected effect on the people. If the worst alternative were applied within this area it would mean that the campaigns would have no effect and the Chinese people would consume 15 millilitres of milk per person per day. This means that the growth in total demand for milk would only grow in alignment with the increasing population. The total milk demand would correspond to 7,933,187 tonnes.

These two pathways would together affect other forces as a consequence. The low protectionism would lead to increased trade and as a consequence affect GDP. Furthermore, the as is state regarding milk demand, would lead to an increased growth in the dairy market, through the increasing population, and as a consequence it would increase milk imports. Which would affect GDP in the end. Although, the increased milk import would not increase as drastically as in world three since there is only an incremental growth with the population.

This world would imply a low protectionism in China that allows for increased trade with the rest of the world and the barriers to entry the Chinese market would decrease. At the same time, the demand for milk will not have a huge increase, which lower the potential opportunities within this sector. The decreased entry barriers and increased trust in domestic brands allows for an intense competition between both international and domestic actors. Although, the potential is not as big as in world three, indicating that there might be less investors that are interested in joining the market competition. This indicates that the competition from international and domestic actors can increase, but it is not as sure as in world three.

The impact of technology

For all these worlds there are two technical forces that does not have a direct impact on the forces that these worlds are built up on, although it is technologies that can affect other forces in this world and as a consequence affect the base. Furthermore, these are estimated to have big impact if they are realised. The two technological solutions that can affect these worlds are differentiation of the packages and digitalisation of the packages. The differentiation force can for example be better-designed packages that stand out of the crowd and meet the Chinese consumers demand better. Their demands are quality where convenience and speed are valuable forces. Furthermore they appreciate products that corresponds to their social status and image, meaning that there are many ways to differentiate the product. Since there is a big population in China the different potential "image groups" are big.

The digitalisation force is based on the fact that there is huge potential to add digital factors to the package. The Chinese customers are digitally active and they are expected to continue to be digitally active, which means that digital solutions can have big impact on these customers. Furthermore, by engaging the consumer, in something else than the product itself, for example in a game that only can be reached through the package, the curiousness of the Chinese customer can get caught. And if the game, or similar, is based on a continuous follow-up concept the disloyalty of the Chinese customer can be tamed since it will mean that the consumer will have to come back, and the only way to come back is to buy the product that has this kind of package.

It is hard to tell how these forces will develop more than that they will develop. The reason to have these in mind is the fact that they can tie up customers, the technology itself is easy to copy, but it is important to be first, otherwise someone else will caught the consumers.

The remaining forces

The forces that have not been mentioned within the constructed worlds are forces that do not have a big impact on the worlds, although they have impact on how to act and to be competitive.

The pressure from the people has a relative uncertain future, although, if it continues it is most likely to continue to within the area of free speech and becoming more alike the western world. This will not affect competition to a big extent and therefore the impact is ranked as low.

The environmental awareness force is expected to continue to increase, which means that the awareness should be applied within the organisations as well.

The urbanisation trend is expected to continue in China. This does not affect the milk packaging dairy industry to a great extent. It has a bigger impact on the retailers and dairy producers that will need to adapt to the urban consumption.

The increase in UHT milk consumptions is uncertain how it will develop. As China becomes more urbanised the shelf life will lose some of its relevance towards customers. Although, there will still be rural areas in China, with low transport availability, which means that there still will be a demand for UHT. The uncertainty is if it will continue to increase, stagnate or decrease. The impact that it will have is what kind of products that should be delivered.

The Chinese consumers' brand consciousness is likely to stay as a customer preference. This is more relevant in other areas than consumer goods, which indicates that it is a force to have in consideration, but as long as the brand have okay or good reputation it is not a competitive factor within the dairy industry.

E-commerce will continue to be a popular channel for the Chinese customers and there is potential that the dairy industry will develop and be available in this channel as well. The main takeaway is that it is an important channel to be active in, especially in China.

The product awareness trend will continue as long as the customers are digitally active, health aware, environmentally aware and brand conscious. And since they are likely to continue with these trends the product awareness trend will continue. To meet this demand a transparency about nutrition and origin could be favourable.

The demand for single served milk will continue as a consequence of the speed and convenience trend that is enhanced by the increased urbanisation. Offering packages that are suitable for a single serving satisfies this demand.

The trend that many technological innovations are to increase convenience within the dairy market is expected to continue as long as the customers demand speed and convenience. And as China becomes more urbanised and more digitally active the convenience force will continue to be demanded.

Shelf-life has been mentioned earlier. And as a part of product development different solutions for increased shelf-life is probable to be innovated. There are existing solutions that allows for good shelf-life, which gives this low impact.

The sustainability trend will continue which will offer more sustainable technological solutions. It is important to continue develop this as more consumers become more aware of the sustainability problems.

Regarding possible threat from value chain competitors there are no indications that either Arla or Stora Enso are interested to integrate upwards or downwards. Arla want to develop their core business, gaining more customers and creating a more effective organisation where costs are rationalised. This indicates that Arla is focused on their current core organisations and does not have any ideas of expanding within the value chain. Stora Enso has divisions that are operating within the packaging segment. Although, none of these compete with the dairy packaging market, Stora Enso is rather a supplier of material towards this market. Since they want to develop their customers organisations it is reasonable to believe that Stora Enso does not want to forward integrate in the value chain within the dairy packaging market. Furthermore, Stora Enso sells assets that are not aligned with the core business, indicating that Stora Enso will continue with the business that is conducted now.

6.1.7 Implications

World one – Attractive dairy market favourable for domestic investors
High protectionism and succeeded food and nutrition development plan

Neither Elopak nor SIG have China as a focus area and the high protectionism creates bigger entry barriers to the market. Therefore Greatview will be allowed to grab market shares without much competition from the others. Furthermore, the high protectionism benefits Greatview, as they are a Chinese company with Chinese management. Mengniu and Yili are two potential dairy champions, as a consequence of the consolidation; they are also Greatview's biggest customers and Greatview have developed a relationship with these companies throughout the years. Greatview's relationship towards these possible champions will contribute to an increased sales volume for Greatview. The fast increase in demand will fill Greatview's capacity, meaning that they cannot supply the demand, which gives an opportunity to capture customers for other competitors. However, Greatview's existing processes, increased production and capacity expansions together with operative assets corresponding to 1.3 billion RMB, indicates that Greatview has the capability to manage a fast capacity expansion.

Greatview has, in line with their prospects; successfully broaden the product portfolio and supplies paperboard for blank-fed filling machines as well. Therefore, Greatview also puts up competition within the blank-fed segment. However, Greatview does not supply filling machines for blank-fed solutions and will not capture any completely new clients. They will instead focus on clients that already have blank-fed filling machines, meaning that they will try to catch SIG's and Elopak's existing customers. Since SIG put big emphasis to maintain existing customers Greatview will have a hard time capturing these clients. Furthermore, Elopak supply non-aseptic packaging solution, which Greatview does not, therefore Elopak does not have to feel threatened by Greatview's new product entry and can enjoy their business as usual.

Krones will also face problems grabbing market shares due to the high protectionism. Their already low profit margin would decrease if the cost goes up because of the protectionism. Therefore Krones will not have any incitements to compete in the market but they continue to supply existing customers with services and spare parts in order to keep their good customer relationships. Moreover, Krones are unlikely to conduct any sales pushes.

World two – Slower dairy market growth with a tough competition
High protectionism and failed food and nutrition development plan

In this world Greatview is allowed to operate without any strong competition from competitors. Since the FNDP has failed the increase in demand will not be enough to create capacity problem for Greatview and they can increase sales and capacity in pace with the increased demand. As a result of the protectionism foreign companies will face increased costs for their products. SIG's strategy is to maintain and increase relationships to existing customers and it is not likely that they will lose any of their customers. If SIG would feel threatened, mostly by Elopak since they are a system supplier, SIG operates with a higher profit margin than Elopak and could therefore compete with price to a greater extent than Elopak. The Chinese market will become harder to manage and since it is not a prior market for Elopak they will slowly leave the market. The implication of this is that SIG gets the opportunity to take over as a supplier to Elopak's blank-fed customer. Greatview will also try to compete for these customers as they recently presented a blank-fed packaging solution. Although, since SIG is a system supplier with spare parts and has a routine within the blank-fed area they will be chosen before Greatview as a supplier of blank-fed packaging material. Regarding Krones, this world only fulfil two out of their four pillars, of their Value Strategy Programme, since profitability and growth is not the perfect match with this world. The two fulfilled pillars are innovation and quality. Since only two out of four pillars can be fulfilled Krones will lack incitement to make any further investment in order to expand their business in China. The asymmetry in the end product towards the other companies allows Krones to retain their existing customer providing them with services and spare parts without competition.

World three – Six fold opportunities for potential stakeholders
Low protectionism and succeeded food and nutrition development plan

The rapidly growing market and the low protectionism makes the market interesting for all companies. Greatview will fight hardest for the market shares since they have the Chinese market as a prior market. As their brand already is successful in China, Greatview have an advantage towards the other competitors. Greatview will compete with price and quality. As they have higher profit margin than the other companies they have the opportunity to reduce their prices more than the competitors. As a runner up SIG can push the prices since they want to offer customers price competitive solutions. Although Greatview and SIG mainly compete with different products, roll-fed and blank-fed. Elopak will try to differentiate themselves as a green company with a sustainability focus. Since Chinese customers are becoming more environmentally aware Elopak's initiative can have yield in this kind of world. SIG also has environmental focus but it is not as pronounced as Elopak, which makes Elopak catch the customers that are searching for environmentally friendly packages. Moreover, it is likely that an increase regarding transparency solutions like QR-codes are likely to show up on the milk packages to provide information about the origin. Krones's new printing technique makes it easier to change QR-codes rapidly and their different product portfolio gives them opportunities to lock in customers in the expansion phase since they offer solutions for plant engineering. Krones's presence will make it harder for other companies trying to sell filling machines. Regarding SIG, they are determined to maintain their position and will fight to keep existing customer. Introducing new innovations and a bigger product portfolio than the other paperboard companies are means for SIG to lock in their customers. The focus in existing customer makes SIG to not put any big effort in reaching new customers, leaving the battle to companies as Greatview and Elopak.

World four – High competition with low dairy consumption growth
Low protectionism and failed food and nutrition development plan

This world reflects business as usual to a greater extent than the other worlds. The lower protectionism will open up the competitive landscape more but the failure of the FNDP leads to a marginal increase in the market. Greatview will make investment as a part of their strategy to expand their customer base and to spread risks at the same time, as they will further nourish their big customer Mengniu and Yili. The consolidation of dairies and the competence within sales and marketing in their management team will help them to achieve bigger market shares. The market shares will mainly be gained from the aseptic roll-fed market for Greatview since Elopak and SIG defends the blank-fed aseptic and non-aseptic market. Even though China is not Elopak's prior market, Elopak will put up most competition towards Greatview. The reason for this is that Elopak wants to further expand their aseptic packaging solution. At the same time as Elopak challenges Greatview, they will also challenge SIG trying to catch new market shares while SIG is focusing on strengthening their existing relationships in alignment with their Focus strategy. Krones will also focus on strengthening existing relationships and will not face any competition because of the asymmetry in packaging solutions.

6.1.8 Selection of Leading Indicators and Signposts

When looking for leading indicators and signposts it is important to have in mind that early indicators might point towards more than one world. Therefore, a combination of two or more indicators can be valuable to monitor.

If any of the two high protectionist worlds will be realised this will be seen in through the implementation of new stricter laws and regulations that will benefit domestic companies and investors. The same applies for the government, if the government indicate on becoming more protective of the national market it could be a first step before the laws and regulations become true.

In the first world, heavy investment in production capacity from dairy champions together with a rapid expansion of the milk production, e.g. increasing number of milk cattle, will be indicators to monitor. As a consequence the milk import will decrease over time, and therefore this is an indicator that shows if this world is to become true.

The second world looks, regarding signposts and indicators, quite similar to the first world. The dairy champions will, despite the failed FNDP, invest in their production capacity since there is a big potential for them to expand in the domestic market. To separate world two from world one, consumer habits are the most important early warnings to look for. One consumer habit that should be further monitored is how much milk the consumer drinks, if the milk consumption stays around 15 millilitres a day per person indicates that world two, rather than world one, is more likely to develop. A decreasing interest for the FNDP from the government could also indicate that the development plan are about to fail and world number two is about to be realised.

If either of the two low protectionist worlds is to become real, China is likely to follow WTO's regulations to a greater extent and erase the laws that protect domestic trade. In general, an overall increase in imports is also an indicator as it becomes easier for foreign companies doing business in China.

In the third world the milk imports are supposed to increase, this is due to a lack of capacity within the domestic dairies and an increased milk demand. Therefore these forces are indicators to monitor. Furthermore, over time a slow transition towards an increased market share for domestic dairies is in place. Therefore the market share split is an indicator to monitor. A major indicator in this world is to monitor how the government works with health campaigns and nutrition education in the early years of the FNDP.

The fourth world is more of an as is state regarding the milk demand. Therefore interesting signposts to look for are efforts and campaigns in order to promote the FNDP that are established but failed.

7 Analysis

This chapter presents an analysis where the applicability, i.e. the fit between the theories and if there is added a competitive dimension, is analysed. The analysis is based on the authors' perception of the process. The analysis is based on the four scenario analyses that have been conducted within this thesis.

The fit between the theories

When conducting this thesis a challenge occurred that regards the suitability to integrate the two theories. The scenario planning theory was mostly undefined and just had directions about what to do, but not how to do it. Meanwhile the theory about Competitive Battles demanded a structured data gathering within specified categories. Although within these categories, there was a lack of explanation. For example, to look at asset with only examples of what to look for opened up a lot of possibilities. The fact that the Competitive Battles theory had a structured approach and that the scenario planning process had an unstructured approach created a challenge for the authors. This challenge was to integrate the theories in order to create a relevant scenario analysis. As a first approach the authors wanted to apply all of the gathered information in order to give a well-developed competitive reaction and scenario. This created overwhelming scenarios that were ambiguous, the authors realised that cramming caused this outcome. Therefore a different approach was applied. The authors chose to only use relevant information in order to give more concise competitive reactions and scenarios. This means that adjustments were made in order to integrate the two theories. The reason for the perceived cramming was due to the fact that the Competitive Battles theory made the authors gather, and analyse, information that was irrelevant when combining it with the different created world. The reason for the cramming was that the unstructured approach, within scenario planning, crashed with the more structured approach in the Competitive Battles theory.

Competitive dimension

When integrating the theories the authors felt that a competitive dimension was added to scenario planning. The process of gathering data about each competitor made the authors get a good understanding about who the different actors were and what actions they would be most likely to conduct. The value that was created when combining Competitive Battles with scenario planning was that a greater understanding, about what the most likely competitive actions and reactions for each competitor would be, was gained. Furthermore, the authors observed that it was the information about values, as a part of Competitive Battles's asymmetric motivations, became the most eminent data. This information assisted the authors to draw conclusions based on asymmetric motivation, which in turn lead to deductions about how the different actors would act in a specific future. Since it could be analysed what the most probable action would be, based on fundamental values, it was efficient in order to build up a competitive reaction. The other areas, resources and processes, were harder to apply since these were, to a great extent, applicable when a specific investment or initiative was taken. To express those kinds of specific events, like an investment, is hard to predict during a ten-year period. Although, in the cases where the authors believed that such a specific detail would happen the information was valuable.

Furthermore, one could argue that the added competitive dimension is derived from the formulation of the focal issue. The authors on the other hand, argue that this is not the case. The integration of the Competitive Battles theory adds the process that creates the understanding of potential competitive actions. The outcome would not be the same if it had only been the focal issue that formed the competitive dimension and the asymmetric motivations would not have been identified.

Outcome for the studied industry

If the focal issue would had been studied only according to Schwartz process without any integration of the Competitive Battles theory the scenario logics would have remained the same. This means that some of the outcomes given in the four scenarios would have been equal to the outcomes in this thesis. However, the authors argues that the reasoning, in step seven of the scenario planning process, would not have been able to be conducted without the Competitive Battles theory. What the Competitive Battles theory added to the outcome was the possibility to analyse competitors' actions and reaction. These analyses made the authors deduce that the future looks brighter for the smaller companies that were studied in this thesis. Another outcome for the industry is the character each company is given when they are studied through the eyes of the Competitive Battles theory. These analyses show that Greatview is a small company eager to expand aggressively. Elopak's focus is in Europe and the Americas and they believe their sustainability work will differ them from their competitors. SIG is a bigger and more cautious company and they have their main focus on existing customers and the relationships towards them. Krones has a similar focus as SIG but duffers in the product portfolio.

The integration itself is to general to give any specific result for the milk packaging industry. However, value is added to the milk packaging industry in step six and seven in each of the scenario planning processes. The outcome is maybe more relevant for companies who is not being a part of the battle but it could be used for strategy decisions for the companies inside the battles as well.

Summary

In order for Christensen et al.'s theory about Competitive Battles to be applicable with scenario planning the prerequisites for this thesis demands that two factors shall be fulfilled. These are that the theories should be efficient to integrate without adjustment and that the integration should add a competitive dimension. Regarding the adjustment factor, adjustments has been made in order to efficiently create concise and value-adding scenarios. Concerning the competitive dimension factor the application of Competitive Battles in scenario planning has added a competitive dimension that offers better prerequisites to understand competitive actions in potential future worlds.

Based on the above-mentioned factors, one out of two factors are fulfilled and therefore the applicability of Competitive Battles in scenario planning is regarded as limited.

8 Conclusion

Based on the analysis the authors have answered the research questions. The answers on the research questions are the following.

Is Clayton Christensen et al.'s idea about Competitive Battles applicable with scenario planning?

> According to the prerequisites that this thesis has, the application of the theories is regarded as limited. One of the two factors, that need to be fulfilled in order to approve the applicability, is fulfilled. In order for them to fit, adjustments are needed. Furthermore, when integrating these theories a competitive dimension is added to the analysis.

- *Can the theories be integrated without adjustments?*

> The theories do not work out efficiently without adjustments. Therefore adjustments are favourable if value-adding results shall be derived.

- Does the integration add a competitive dimension?

> The integration of the theories adds a competitive dimension to the analysis. The Competitive Battles analysis adds a greater understanding about which competitive actions that is the most probable for each competitor to conduct in a potential future world.

What is the outcome, from the integration of the two theories, for the studied industry in this case study?

> The outcome for the milk packaging industry is that the future looks brighter for the smaller companies that were studied in this thesis. This is due to the fact that the smaller companies are keener on expanding their business meanwhile the bigger rather wants to protect their business. Furthermore, the scenario analyses in this thesis show that 12 out of 16 potential worlds will grow whereas China and India are the two market where there will be a growth in the market in all the potential future and also have the biggest volume growth potential.

9 Discussion

The result for this thesis is that the theory about Competitive Battles is not applicable in scenario planning based on the prerequisites of this thesis where two factors evaluate the applicability. It should be shed light on the fact that these factors are not the only way to evaluate applicability, and if the goal would be to evaluate it based on only the adding of a competitive dimension the result would be the opposite. The authors are aware that this is the case. The reason for the chosen factors is that the authors believe that these two factors are an essential part of this integration. The adjustment factor regards how easy it is to integrate the two factors and the idea is, that the easier it is, the more applicable the theories are. Regarding the competitive dimension the authors believe that there is a lack of scenario planning theories that have a niche towards competition. Without that vision this thesis would never have been realised. Therefore the authors have chosen to evaluate the applicability based on the mentioned aspects.

Even though the result says that Competitive Battles is not applicable in Schwartz's scenario planning process the authors would like to illuminate the value that was created. The competitive dimension that was added was due to the integration of Competitive Battles and it added significantly value in regards to a competitive dimension. The reason for the adjustments were that otherwise it would have been crammed, neither way would have given a perfect suitability between the theories. Though, the authors came to the insight that the area of values within Competitive Battles, giving asymmetric motivation, has given the analysis the greatest value. This area has also been the most natural way to analyse industry actors' future competitive actions. The reason that asymmetric motivation suited well was due to the fact that this is a part where strategies and future goals are analysed. This means that, even though the Competitive Battles theory is not applicable with scenario planning, the part of asymmetric motivation is applicable to apply when a competitive perspective is wanted in scenario planning. Regarding the analysed categories within Competitive Battles, resources and processes did not have the same eminent role in this thesis. The reason for this, the authors believe, is four factors. The most prominent factor is that resources and processes did not suit the scenario planning outcomes. There was no match. The second factor is that the authors lack industry experience. If the authors would have had more industry experience these factors could have had more importance. The reason for this is that industry experience would mean that the authors would have known, for example, what different kinds of investment costs, and from this, resources could have given better yield. That the authors do not have industry experience is something that cannot be fixed in a short time-perspective. Though, it should be mentioned that industry experience could have given resources and process a bigger role. But there is nothing saying this is for sure, it is just a hypothesis. The third factor is the time-horizon of the scenarios. In this thesis a ten-year time-horizon was applied. If a shorter time-horizon would have been applied it could have been easier to foresee investments, and as a consequence, resources and processes could have gained a bigger influence. The reason for the time-horizon was due to the choice of industry, which is a slow moving market. Therefore this factor is out of bound for this thesis. The fourth factor is that there were few listed companies, which made some of the wanted information unavailable. The Competitive Battles theory demand information that sometimes was unavailable due to secretes of the different firms. This fact could also have affected that much of the gathered information was within values and therefore this area got a bigger part when developing the scenarios. However, the authors would still argue that it is the first factor that is the biggest reason. The information did not fit the outcome of the scenario planning process. The authors tried to apply resources and process, but the information was forced to fit, which affected the scenarios negative. When applying relevant and value-adding information, the most eminent data was information from the values category. This indicates that values were the most suited and natural way to understand future competitive actions. This deduction is reasonable since values and prioritisations are the fundamental of any decisions. These are the bases for how resources are spent, and as a consequence what kind of processes that are developed.

Another question that could be asked, regarding the results, is how generalisable the result is. The authors would like to argue that it could be generalised for a slow moving oligopolistic market. The thesis applied a ten-year time-horizon and studied an oligopolistic market, in four, completely different markets as a case study. Within these, the same results were found. Therefore the authors believe that the result can be generalised for the conditions that were applied for this thesis. Furthermore, the authors believe that the suitability between the theories can be regarded as limited regardless the situation it is put into. Regarding the adding of a competitive dimension, this factor might change, especially if the industry is not an oligopolistic market. The reason for this is that the authors believe that other markets, than oligopolistic, might cause bigger complexity since there are many different actors to analyse, which is highly correlated with the time spent on the scenario analysis. It has to be correctly done in order to gain the understanding about each competitor that the authors mention in the analysis. And if it is applied on a numerous different competitors it might become overwhelming.

Furthermore, the authors would like to discuss the conducted method. There are situations where the authors have needed to make decisions on how to conduct specific steps, as a part of the scenario planning process and within the frame of Competitive Battles. For example, since the scenario planning process only give directions with no specified actions the authors decided on how to approach the problem. The authors have been aware that this has been the case and that there can be several different ways to solve these kind of problems. Since the authors have been aware of this problematic situation, a fundamental has been to be systematically consistent and to state clearly what has been done in each step in order for the reader to understand the authors' point of view. It has also been discussed with supervisors in order to secure that the chosen approaches have been reasonable. Another way of solving these problems could have been to apply other theories. It would have become theories within theories, which would have given the authors more specific directions. This was refrained from since the scope of this study was not to create a new, more user friendlier, scenario planning tool.

Another discussion that regards the conducted method is if the Competitive Battles theory is applied at the correct place in Schwartz scenario planning process. The Competitive Battles theory is placed in step seven in Schwartz scenario planning process. This step is to revisit the focal issue, which the authors do by the help of Competitive Battles. The authors believe that this is the best step since it offers an output from step six in form of different potential future worlds. Competitive Battles are dependent on an input in order for it to be applied, the output from step six, becomes the input. Therefore the authors chose to place the Competitive Battles theory within step seven in the scenario planning process. Although, there can be better places for the theory to be applied. If there is a better place, it can lead to a result where the theories are applicable with each other since there is a better match and no adjustments are needed at the same time as the competitive dimension is added. Unfortunately, the time frame for this thesis did not allow for this kind of test. Moreover, it could also be questioned if the theory only should be applied on competitors or if it could be applied on something else, for example the countries. The authors chose to apply the theories on companies since this is the way Christensen et al. conducts the analysis. Since the authors were unfamiliar with the theory when the thesis started it was a natural choice to follow Christensen et al.'s approach. Although, after the thesis, the authors are wondering if it also could have been interesting to apply the Competitive Battles theory on the countries. Countries are sometimes seen as companies and therefore the theory could suit them as well. This was not done within the frame of this thesis due to limited time frame.

Moreover, another challenge with this kind of thesis has been if the gathered information is comprehensive enough. The authors have consistently worked towards being comprehensive enough in the data gathering since this is a factor that builds the foundations for the scenario analyses. In order to secure exhaustiveness the authors have quality-checked findings with industry and country specific experts where approval has been given. As a consequence of this the authors would like to argue that the data that is used within the frame of this thesis could be regarded as comprehensive enough in order to secure the founded results.

Within this thesis Schwartz's scenario planning process has been applied, the choice of this was based on the fact that the intuitive logics school is the most popularised school and Schwartz was the one who begun popularising it. The authors could have made three other choices, which has been carefully discussed. One choice could have been to apply the Probabilistic Modified Trend School's theory. This approach extrapolates trends and has a quantitative approach and was therefore deselected due to the unsuitability for this thesis. The authors do not believe that this approach would have given better yield since it would have been unsuitable towards the thesis's purpose. It would have been more suitable if the purpose was to predict a future demand in terms of quantitative numbers or similar. Another option that could have been chosen is to apply Michel Godet's theory. This option was refrained from due to the fact that this approach applied theories within the framework. These theories were quantitative and needed specific data programs. The theory was not chosen since this thesis has a qualitative approach and that the authors could not get a hold of the computer programs that was needed. The third possible option, that the authors could have done, was to combine different scenario planning schools and from this get a general scenario-planning tool that was not developed from any specific school. This approach was not chosen since the authors believed that it would not add value towards the purpose and that the combination itself had a scope big enough for an own thesis. Therefore the authors believe that the chosen approach is the most suitable. Although, if someone creates an general scenario planning model it would be interesting to conduct the same approach with that model as well.

As a last word, there are two things that the authors would have like to further explore due to interest of the subject. This is to apply Tetra Pak® in the scenario analysis and to compare the scenario analyses with each other. Although the time frame of this thesis did not allowed for this and it is not needed in order to fulfil the purpose of the study. The first thing the authors would have liked to do is to apply Tetra Pak® into the scenario analysis. This is, by far, the biggest actor in the ambient milk packaging industry and therefore an adding of Tetra Pak® could have added extra dimension in the scenario building. Though, since this thesis aims to test the scenario planning process through Tetra Pak®'s perspective the first step would be to analyse the competitive situation and the second step would be to apply Tetra Pak® into the situation. The time frame within this thesis only allowed for the first step, the second step would be the next phase of this analysis. Furthermore, by only doing step one is sufficient enough in order to fulfil the purpose for the thesis. The second thing the authors would have liked to do is to compare the scenario analyses with each other. If a comparison between the analyses had been done, a new dimension would have been added. For example, it could have been derived that some organisations would focus on a specific market, leading to decreased motivation to compete in another. The approach that this thesis has is that each scenario analysis, and consequently market, are independent. This means that all competitors have the same interest, in the analysed market, making the reality of the scenario analyses somewhat distorted since they might have a bigger prioritisation to defend or compete in another market. This factor was not conducted since the time frame did not allow for that kind of analysis. Furthermore, it does not affect the fulfilment of the thesis's purpose.

9.1 Ideas for Future Studies

There are several areas that the authors believe has potential and should therefore be further studied.

One area to further study is the possibility to combine the value category, from the Competitive Battles theory, with scenario planning. As the authors found this category to add the most value to the competitive dimension within scenario planning there are great potential for this. If it could be defined what factors that do add the most value to scenario planning and the competitive dimension these could be integrated into a new scenario-planning model.

Another area of study could regard if the conclusions of this thesis are the same if the same prerequisites are tested on a market that is not an oligopolistic market.

Moreover, there are other studies that can be made applying other theories than has been done in this thesis. Can another scenario planning theory be applicable with Competitive Battles? Or can another theory, that treats competition, be applicable with Schwartz scenario planning theory? If answers on these questions can be realised there are potential to create new models that add value to organisations' strategy work.

As a last suggestion, it could be analysed if there is a better place, in Schwartz scenario planning process, to integrate Competitive Battles. The conclusion can be reached that the theories are applicable if the theories are integrated through another approach.

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Appendices

Appendix A – Interview Questions

What factors affect the conditions of competition in your market?
Which of these have the greatest affect?

Appendix B – Technology Trends

Regarding new technical solutions and trends in the packaging industry there exists some trends that can affect the packaging solutions in the future. Some of the trends and technologies that exists are according to Vella (2013); packages has to stick out of the crowd, augmented reality, light proof milk packages, embedded colour changing labels, usage of social media, digital printing, convenient packaging and laser surface authentication.

That packages needs to stick out of the crowd means that the package should create an interest for the consumer (Vella 2015). An example of a technology that can capture the consumers' interest is electroluminescent technology, which allows the package to emit light from current (Vella 2015). This is a way to let the package stand out of the crowd, something that becomes vital as more products compete for consumers (Vella 2015).

The augmented reality technology is a technology that makes the consumer interact with the package (Vella 2015). This technology, as the former mentioned, also wants to catch the consumer's interest (Evans 2014). The trend is to use technology in order to strengthen the customer's experience (Schofield 2013). An example where the package became entertainment is when the juice company A.Lassonde turned their carton into a controller for an online soccer game (Schofield 2013). Another, less technical, solution is to have 3D images on the package (Schofield 2013).

There is a technology within the dairy industry that allows for increased light proof (Vella 2015). Fonterra Brands, in New Zealand has succeeded to, according to them, create a 100 per cent lightproof milk package (Vella 2015). According to Fonterra regular packages passes 7-25 per cent of light, which make the milk to go bad directly after packaging (Vella 2015).

The embedded colour changing labels is a technology that makes it easier for the consumer to store food (Vella 2015). It is a technology that makes an intelligent label to shift colour depending on the foods' durability (Insignia 2015). The colour changes due to changing levels of CO_2 or temperature (Insignia 2015). The technology was developed in 2010 through the "Scottish Enterprise Proof of Concept Program at the University of Stratclyde" (Whitworth 2012). This technology is expected to reduce food waste at the same time as consumers more easily can determine the durability of their fresh food (Vella 2015).

The social media trends is that social media is used to understand customer needs. When choosing which product to buy the aesthetic design is, for a large group of customers, equally important as to the technology behind the packaging (Vella 2015). The usage of social media is one easy way for companies to understand what kind of package the customers want. By letting the customer choose what kind of package they want, and respond to their wishes, companies can re-brand their products in the same time as they fulfil the customers needs (Vella 2015).

Digital printing is a technology that can help to design the package after the customers' demand. The decrease in costs for digital printing has made it easier to motivate short print runs (Jenkins 2014). As a consequence of the decrease costs it is easier for companies to personalise the packaging (Jenkins 2014).

Convenient packaging is about understanding the needs of the consumers. There has been a shift in customer preferences and there is an increasing group of "on the go" customers (Jenkins 2014). Since this kind of customer group grows there is an increased demand for convenient packaging solution that is easily to manage on the go (Jenkins 2014)

The laser surface authentication is a technology that can read a digital serial code on almost every packaging material, e.g. paper, cardboard and plastics. An imperfection in the surface is possible to convert into a number, making it possible to authenticate the package (Vella 2015). This technology is good to prevent falsification (Vella 2015).

IoT is the trend where different objects are connected to the Internet (Jankowski, Covello, Bellini, Ritchie & Costa 2014). The data that is gathered from IoT offers possibilities for organisations to increase their understanding of a product's use and therefore new innovations can increase revenue and realise cost savings that was not possible before (Jankowski et al 2014). Furthermore, consumers like IoT, smart products that suits the consumer needs' are created and the barriers to create value-adding products get smaller (Edwards 2015).

Appendix C – Possible Value Chain Competitors

Possible value chain competition has been identified as a force that can affect the competition within the dairy packaging industry. Together with an industry expert Arla Foods AB and Stora Enso has been chosen as organisations to further explore within this area.

Arla Foods AB

Arla Foods AB (Arla) is a cooperative where farmers are the owners and suppliers of milk. Their strategy, until 2017, is divided into three parts. These are; develop their core business and their three global brands, create growth outside Europe and increase their effectiveness (Arla Foods AB 2015a).

To develop their core business indicates a will to offer attractive products to customers and to find new ways to inspire the end-customers (Arla Foods AB 2015a). Regarding retailer customers, Arla indicate that they want to be a great partner that develop both their own and the retailers' brands (Arla Foods AB 2015a). Furthermore, to develop the core business, means to re-use already implemented ideas in new countries and to become more sustainable (Arla Foods AB 2015a).

To create growth outside Europe means that Arla wants to increase their yield in countries where they have invested heavily the latest years (Arla Foods AB 2015a). These countries are especially Russia, China, The Middle East and Africa (Arla Foods AB 2015a). Arla expect that the revenue from these countries shall, in 2017, account for 10-20 % of the total revenue (Arla Foods AB 2015a).

To be more effective is an initiative to increase their competitiveness by focusing on costs and to be as rationalised as possible throughout the organisation (Arla Foods AB 2015a). For example, Arla constantly review their suppliers with the goal to achieve better contracts and to utilise their production capacity better in means of reducing energy and water consumption and to reduce waste (Arla Foods AB 2015a). As a consequence Arla say that a packaging review is conducted in order to secure the same function and quality to a lower price (Arla Foods AB 2015a).

In the 2014's annual report (2015b) Arla summarise the strategy 2017 to; "We must develop our core to maintain a stable base in Europe and develop our global brands. We must deliver growth by moving more milk to markets with high demand to create profitable growth. And we must do it faster, simpler and leaner to achieve cost leadership". Furthermore, according to Arla's annual report for 2014 (2015b), Arla has a long-term focus on effectiveness and cost control, and in the short term they will invest in marketing and product development. Moreover, the goals for 2015 are to increase sales volume & profitability, at the same time as the cost focus will continue (Arla Foods AB 2015b).

Former strategies for Arla has been similar, between 2008 and 2015 Arla's strategy was to increase turnover based on three pillars, development, growth and rationalisations (Arla Foods AB 2011).

Stora Enso

Stora Enso is a corporation that focuses on products such as packages, biomass, wood and paper. The current strategy at Stora Enso is that they want to transform the organisation from being a traditional paper and cardboard producer towards being an organisation that offer renewable materials with new innovative solutions (Stora Enso 2013). Stora Enso wants to become more market steered (Stora Enso 2013). Furthermore, Stora Enso is a large producer of cardboard, paper and pulp to the dairy packaging industry (Stora Enso 2015a).

Stora Enso's business model consists of four pillars; focus on their customers, create innovative solutions, conduct organisational transformation and asset management (Stora Enso 2015a). Focus on customers' means that Stora Enso wants to develop their products according to the customers' demands (Stora Enso 2015a). Innovative solutions means that Stora Enso wants to create solutions that offer revenue from environmentally friendly and less cyclical solutions (Stora Enso 2015a). With organisational transformation Stora Enso meant that they want to become more adaptive towards market changes (Stora Enso 2015a). The assets management area regards that Stora Enso wants to sell assets that are outside of the core business (Stora Enso 2015a).

Stora Enso has five different divisions whereas two of these are operating within the packaging segment (Stora Enso 2015a). These are Consumer Board and Packaging Solutions (Stora Enso 2015a). The Consumer Board division supply cardboard solutions that are suited for packaging of liquids, consumer goods, medicines and luxury goods (Stora Enso 2015a). The Packaging Solution division develop fibre-based solutions for packaging, where they are present throughout the value chain (Stora Enso 2015a). The Packaging Solution also develops their clients' organisations (Stora Enso 2015a). A supporting message that Stora Enso want to develop their customers organisations is Ari-Pekka Määttänen, Vice President, Head of containerboards, citation "We are on a journey of growth and we want to build success together with our customers in the years to come" (Stora Enso 2015b).

Appendix D – Information About China

In order to understand what trends that exist in China within each of the areas of politics, economics and customers information about China has been gathered. In addition to the data presented in this section, the data regarding technology trends and possible value chain competitors from Appendix B and C are also relevant for this scenario.

Politics in China

Political rule

The Communist Party has been the leading, and the only nation wide political Party, since 1949 when they took power as a result from a civil war (Lawrence & Martin 2013). The Communist Party is the highest hierarchical decision maker over four other political institutions (Lawrence & Martin 2013). The communist Party is committed to continue being the leading political party (Rixon 2014). The western world sometimes call the free speech in China restricted and an example for this might be that China censors the Internet (Lawrence & Martin 2013 & Wong 2015). The restriction regarding free speech is becoming questioned and the people in China are becoming conscious about what rights they can have and what they can expect from their leaders (Yu 2012). An example regarding this is the riot in Hong Kong, where students protested against the political power in Beijing (Branigan 2014). This protest was focused towards the central power, which is unusual. There have been small riots in the mainland of China but these have only been directed towards local representatives and not towards the central power in Beijing (Hua 2012).

Environment and politics

Previously China only focused on economic development and did not think about the environmental impact that could come as a consequence (Jiaman 2012). The global warming has affected China and the agriculture and food supply has been affected negatively due to change in weather norms (Jiaman 2012). Furthermore, the environment affects the Chinese people, air pollution kills over hundreds of thousands each year, and almost 500 million does not have safe drinking water (Kahn & Yardley 2007). As a consequence the Chinese people has become more environmentally aware (Jiaman 2012). China as a country has also become more environmentally aware and has for example progressed within the field of renewable electricity (Larson 2014). Despite this progress, the energy supply in China still consists of 87 per cent fossil fuels where 70 per cent of these are coal based, one of the fossil fuels that have the biggest negative environmental impact (Larson 2014). And it does not stop there, it is predicted that the coal power will be 50 per cent larger in China by 2040 (Larson 2014). This is a political issue that needs to be addressed. There are indications in the tax systems that there is an increased political environmental consciousness. Brys, Mathews, Herd & Wang (2013) argue that there are indications that China are thinking about raising the price for pollution and fuel tax. Which is inline with environmental consciousness.

Political decisions affecting the dairy industry

Regarding dairies, the Food and Nutrition Development Plan (FNDP) for 2014-2020 focuses on securing effective food supply and to improve the health of the people (Ministry Of Agriculture Of The Peoples Republic Of China (MOA) 2014). As a part of this plan, one goal is to increase the average milk consumption per person to 100 ml a day compared to the 15 ml a day, that was the goal in the plan for 2000-2010 (Zuo 2014). The tools that will be used to reach the nutrition plan are public health campaigns, advertisement and education towards the people (Avante International LTD 2014). Furthermore, the political Party wants to consolidate the industry with the idea to create domestic “champions” that can supply high quality milk (Speirs 2014). The government aim to reduce the number of domestic milk powder manufacturers to about 50, from todays 127, and the government aim to develop ten large dairies (Shen 2013). The government want the consolidation to lead to a 70 per cent market share for domestic companies in five years time (Shem 2013). The reason for the consolidation is to increase the people’s confidence for domestic brands and to increase competitiveness towards international competitors (Speirs 2014). The main underlying cause for the low confidence towards domestic brands is the milk scandal that occurred in 2008 (Shen 2013). This scandal made foreign companies to increase their market share, in the dairy sector, from 30 per cent to 60 per cent, which shows a decreased trust towards domestic brands (Shen 2013).

Trade regulations

Historically China has been hard to trade with, they have had a state monopoly for foreign trade but the trade regulations are becoming more liberated (Hong Kong Trade Development Council (HKTDC) 2007). An example of this is that China joined the World Trade Organization (WTO) in 2001, meanwhile Hong Kong and Macao has been members since the start of WTO (WTO 2014a). WTO is an organisation that strives for international trade opening where the members set the rules for the international trade, for example the maximum tariff levels (WTO 2014b). Despite this, Foster & Waterfield (2010) argue that China has some trade regulations that make it more difficult for foreign companies. Some laws in China demand other tests than European standards, which create additional efforts for European organisations (Foster & Waterfield 2010).

Within the dairy industry some regulations has recently been implemented. In 2013 a regulation called “Supervision & Administrative Measures on the Inspection & Quarantine of Dairy Imports & Exports” was implemented (Wang 2013). This regulation meant, for example, that overseas dairy producers need to confirm that their products fulfil the food safety standards in China and that the organisations has to submit tests accordingly (Wang 2013). Further, China amplified the regulations in 2014 by implementing a rule that overseas suppliers need to register their organisation in order to get an “import certification” (Blanchard & Hui 2014).

Economy

The Chinese Economy

The gross domestic product (GDP) has had a huge increase in China the latest years; much is due to the industrialisation and increased capitalism in China (Song 2010). Between 2005 and 2013 the GDP in Mainland China increased from 2256 trillion dollars to 9240 trillion dollars (The World Bank 2015a). This development has made China to become the world's second biggest economy measured in GDP (The World Bank 2014a). Although, there are indicators that the huge growth in GDP for China might slow down as the new economic situation settles and the growth is expected to continue on a moderate level (The World Bank 2014b). The industrialisation in China has led to a shift towards services rather than manufacturing on the supply side (The World Bank 2014b). It has also led to an increased economic interaction with the outside world. In 2014 China improved their exports with 6.1 per cent to 2.34 trillion dollars and their imports with 0.4 per cent to 1.96 trillion dollars (Wang 2015). Furthermore, China has invested heavily in American treasuries (Forbes 2014).

In line with the quick industrialisation the disposable income has risen fast. According to The World Bank (2015b) the number of people living in poverty, meaning living on less than 1.25 dollars a day, has decreased from 689.4 million people in 1990 to 84.1 million people in 2011. For the urban households the average disposable income per capita amplified from 9,924 Yuan in 2005 to 25,198 Yuan in 2013 (National Bureau of Statistics of China (NBSC) 2014). And the forecast for the average disposable income in China is projected to be 39,318 Yuan in 2020 and 53,523 Yuan in 2030 (Trading Economics 2015a).

The Chinese dairy market

With a population of about 1.36 billion people there is a huge potential market for dairy products (Muratoglu 2014). And the demand for milk has steadily been growing; in 2012 the demand for liquid milk increased by 21 per cent and the total raw milk demand was above 45 million tonnes (Leaung, Chan & Rambourg 2013). The total dairy market in China was worth 20.7 billion dollars in 2008 and in 2013 it had almost doubled to 40.6 billion dollars (Zhang 2014).

The Chinese demand for dairy products is high, and traditionally the majority of the consumption has been milk powder (Muratoglu 2014). Although, the latest years ultra high temperature (UHT) processed milk has steadily been growing and now accounts for 76 per cent of the consumed milk in China (Muratoglu 2014). The import of UHT milk has increased rapidly, the import in 2010 was about 8,000 tonnes and in 2013 it was 150,000 tonnes (Christieson 2014). Moreover, the US Dairy Export Council projects that the import of UHT milk can reach 600,000 tonnes and quadruple between 2013-2020 (Christieson 2014).

The increase in demand for milk can be explained due to increased consumerism and westernisation in China (Meyer 2014). China also implemented milk programs in the schools in 2000, which boosted the overall demand (Griffin 2004). Furthermore, the easing on the one child policy China had, can boost the infant milk powder demand (Zhang 2013).

China is the biggest milk importer in the world. This is due to the fact that the production of milk does not keep up with the increased demand and there is a suspicion towards domestic brands, due to an incident in 2008 where a milk contamination killed 6 infants and sickened 300 000 (Tetra Pak® 2014 & Zhang 2013). Furthermore, between 2004 and 2013 China had the second highest, after Russia, compound annual growth rate regarding import corresponding to 21.5 per cent (Tetra Pak® 2014). The trend that China is importing dairy products is likely to continue. According to Tetra Pak® (2014) China is expected to drive the global import of liquid and powder milk between 2014-2024. It is estimated that the annual growth rate will correspond to 15 per cent during 2014-2018 and 10 per cent during 2019-2014 and the shortage of milk in China is forecasted to grow from 9119 tonnes in 2012 to 35 520 in 2024 (Tetra Pak® 2014).

The Chinese Customer

The population

The demographic situation in China looks like the following. China had a population of 1,355,692,576 people in July 2014, which made China the biggest population in the world (Central Intelligence Agency 2014a). The population in China has increased every year since 1955, and this trend is expected to continue until 2030-2035 where the growth is expected to turn negative (United Nations, Department of Economic and Social Affairs (UN DESA) 2015). In 2025, UN DESA (2015) has forecasted that the population will be 1,448,984,000 people. The expected population pyramid, in 2025, is presented in Figure D.1. Furthermore, the urban population in China's mainland is 50.3 % in 2014 (The World Bank 2014c). It is forecasted that by 2025 the urban population will increase with 350 million people (Woetzel, Mendonca, Devan, Negri, Hu, Jordan, Li, Maasry, Tsen & Yu 2009). China has a birth rate per 1000 inhabitant corresponding to 12.17 births, and the death rate in China is 7.44 deaths per 1000 inhabitant (Central Intelligence Agency 2014b). Furthermore the total average age in China is 75.15 years old, which has been fairly stable the latest decade (Central Intelligence Agency 2014b).

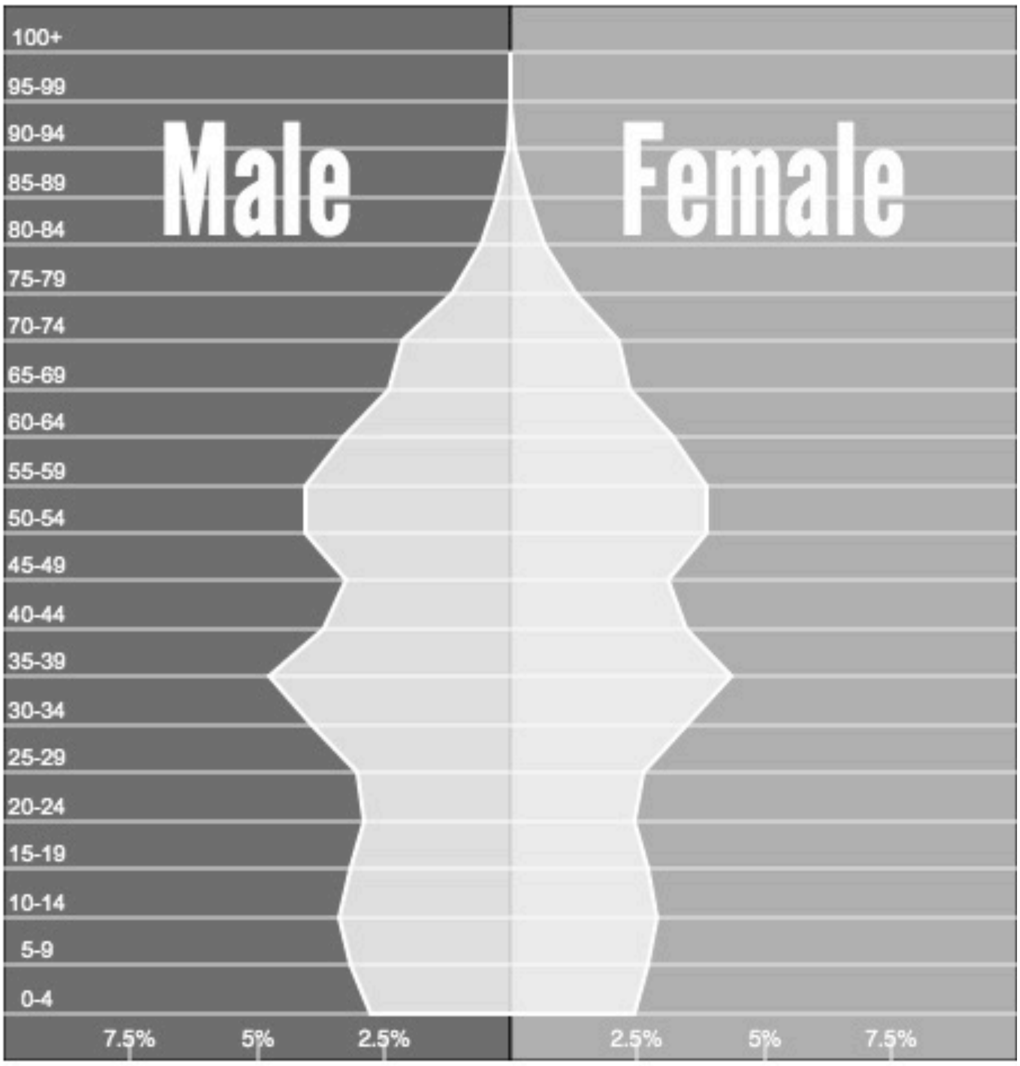


Figure D.1. Population pyramid for China in 2025 (Populationpyramid 2015a).

The characteristics of the Chinese consumer

The Chinese customers are brand and quality conscious, digitally active, aware and disloyal customers (Dudler, Agarwal & Huang 2014). Furthermore, the Chinese customer looks for convenience and speed (Stanley & Ricatta 2014). Especially the younger consumers in cities appreciate foreign brands that can support their image and social status (Dudler, Agarwal & Huang 2014). Furthermore, the Chinese customer has changed their preferences towards demanding quality over quantity (Dudarenok 2014).

To start with, there is an increased consumption trend in China as a feature of China's quick industrialisation (Atsmon & Magni 2012). With the industrialisation there has come increased income levels, greater mobility, longer lifetime expectancy, better education and so forth (Atsmon & Magni 2012). As a consequence the income per household has increased, which has allowed the Chinese consumer to increase their consumption (Dudler, Agarwal & Huang 2014). McKinsey has forecasted that that the consumption in China will increase to 27 trillion RMB in 2020, from 2012s' values corresponding to 10 trillion RMB (Atsmon & Magni 2012).

The increased consumption has affected the Chinese E-commerce market. The E-commerce market in China is the biggest E-commerce market in the world. The market's value corresponded to 540 billion dollars in 2015 and in 2020 the total value of the E-commerce market in China is expected to be bigger than the combined value of the E-commerce markets in USA, France, UK, Germany and Japan (Stanley & Ritacca 2014). A growing trend in China is to conduct payments through the mobile phone when shopping online. In China 55 per cent have completed a mobile payment, compared to USA where only 19 per cent have completed one (Stanley & Ritacca 2014). This fact further support that the Chinese consumer is an online customer. Furthermore, the Chinese customer are active online where they are reading reviews before they carry out an purchase (Dudler, Agarwal & Huang 2014) In 2014 there was 618 million internet users and 81 per cent of the mobile devices in China had internet connection (China Internet Network Information Center 2014). The awareness that the digital presence give has made the Chinese consumers curious, and as a consequence they become disloyal. The Chinese customer has a tendency to try new products and in a survey two thirds, from all age groups, answered that they were willing to try new products (Dudler, Agarwal & Huang 2014).

Another trend that is present in China is that the consumer is becoming more focused on being healthy and being environmentally conscious. The healthy lifestyle is no longer just a diet; it is a long-term commitment (Mintel 2015). This has made the Chinese customer to search for products that are healthy in means of physical factors and environmental friendly to a greater extent (Dudarenok 2014). This has made that the Chinese customer want healthier food. According to Dairy trends (2015) the Chinese customers are searching for protein rich food to a greater extent than earlier. The healthy trend has also led to an increased demand for convenient healthy snacks (Scott-Thomas 2014). Regarding the environmental factors, the customers put bigger emphasis on transparency of the products, since they want to be more aware about what the product contains and what the product stands for (Darenot 2014).

The national view of milk

The view of milk in China is that it is associated with the growth and health of children and they are willing to pay extra for premium products, especially international brands that offer fresh milk (Tetra Pak® 2014). Furthermore, as an effect of the growing health trend, 71 per cent of the Chinese consumers are searching for dairy products since it has good proteins (International Dairy–Deli-Bakery Association (IDDBA) 2015).

The way milk is consumed in China has some specific details. Many Chinese consumers are lactose intolerant, which means that the consumed milk is often lactose free milk (Muratoglu 2014). Furthermore, milk is often consumed in as a single served drink, meaning one packaged suitable for one person and one meal (Muratoglu 2014).

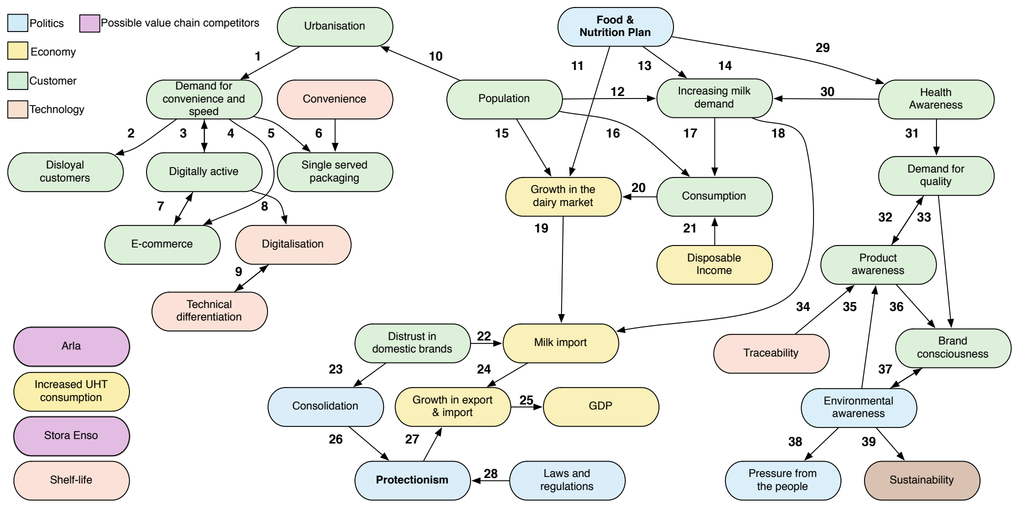
Appendix E – Impact and Uncertainty Ranking, China

Forces	Uncertainty	Impact	Motivation
Politics			
Pressure from the population	3	1	The pressure will be more for the right of the free spech. The government has a history of pleasing the lion share of the population and even though their are some protest now they might can turn it around.
Increased protecionism	5	5	A more open competitive landscape would benefit the economy but not the domestic companies and therefore this force has the highest uncertainty. Either pathway chosen will have major effect for the competitive battles.
Environmental awareness	2	1	Pressure from outsight world will force China to become more environmental friendly. The impact is set low since environmental work has been an issue for companies for a long time.
Food and Nutrition Development Plan (people drinks more)	5	4	The goal for the FNDP is set high and therefore it is uncertain however it will succeed or not. A succeeded plan will have huge impact since it will increase the consumption six fold per capita
Consolidation	1	5	Dairy champions has already started to develop. This factor will decrease the number of customer for the packaging companies and will therefore have big impact.
Economy			
Increased GDP	1	1	Nothing points towards anything else but it does not correlate with the competition
Increased disposable income	1	3	In pace with an increase middle class the disposable income will also increase. With more money people are likely to consume more therefore it is suppose to have som impact.
Growth in export and import	1	3	To further strengthen their positions as a leading economy this needs to happen. The balance where the milk will be packaged will affect the market.
Growth in the dairy market	1	5	The government has strong focus in this therefore it is considered to have a low uncertainty and if the market growths the impact will be big.
Increased UHT-consumtion	3	2	Customer preferences can change fast but indicators shows that UHT will growth therefore this force has not been givena high uncertainty. As long as the milk consumed is packaged it does not matter if it is UHT-milk or anything else.
Increased milkimport	1	4	Due to Chinas big population it is hard for them to produce enough and therefore the increased import are likely to happen. This means a smaller domestic market to compete for.

Customers			
Increased population	1	3	The trend of increasing population is inevitable. More people leads to a higher demand.
Demand for quality	3	2	People always want a high quality but the uncertainty lays within the defintion of qualitity for a Chinese customer. This will affect the companies downstream in the value chain and therefore not have any huge impact in the packaging industry.
Distrust in domestic brands	5	2	Despite efforts to increase the trust, earlier scandals will have impact in the issue. This will not affect the total consumption and will therefore not have any big imact.
Increasing milk demand	1	4	It is align with many other forces and are therefore likely to happen. If the demand increases there will be a bigger market to compete for
Demand for conveincecnce and speed	2	1	Chinese already have these preferences and it is likely to continue. The consumers milk habits are not likely to change because of just this and the impact is therefore set low.
Disloyal customers	2	1	People are likely to go for convenince instead of hunting a preferable brand. Disloyal end-customers will affect all companies equally.
Continue to be brand conscious	2	1	A already developed consciousness are not likely to disappear. The impact is set low since their is no indicator it affects the milk market.
Continue to be digitally active	1	3	It would be a setback for convenience and speed if this was not about to happen. The impact is set in the middle because of digitally solutions could affect the consumer behaviour.
Increased consumption	1	3	Since the Chinese are likely to have more money they are also likely to spend more. More consumption of milk will increase the demand and have impact on the competition.
Increaed urbanisation	1	2	People will move to where they can find job opportunities. Urbanisation could have impact in turnover-rate and therefore a small impact in the industry.
E-commerce	1	3	China has already a large e-commerce market. If milk is started to be bought online, better logistics solutions migh become important for the competition.
Increased health awareness	3	2	It is hard to change peoples habits but efforts are made therefor the rank is given the uncertainty 3. The awareness would relate to much more than just milk therefore it is set to have a low impact.
Product awareness	2	2	The information will be provided to the customers but they are not likely to be willing to pay for it.

Continue to drink milk single served	3	1	The uncertainty is given because of larger portions often gives a more favourable price. All companies has the possibility to provide single served solutions.
Technology			
Differentiation	2	5	Technology is something that companies constantly needs to work with in order to be competitive. Differentiation and offer something different will give competive edge and affect the competition
Digitalisation	2	4	Technology is something that companies constantly needs to work with in order to be competitive. Since Chinese customer are digtially actice, new solutions will have great impact.
Convenience	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The offering today are satisfying enough so new solutions are not likely to have any big impact.
Shelf-life	3	1	Technology is something that companies constantly needs to work with in order to be competitive. Milk has already a long shelf-life so the impact will be low.
Sustainability	2	3	Technology is something that companies constantly needs to work with in order to be competitive. As times goes sustainability will be a bigger issue and therefore some impact.
Traceability	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The impact is set low since this is something customer are not likely to pay for in the near future.

Appendix F – Interrelation Between Forces, China



Arrow	**Motivation**
1	Generally a faster pace of living is seen in cities.
2	A certain brand might not be provided at a certain time or place.
3	Digital solutions wrap up speed, a demand for speed will give more digital active people.
4	Errands can be made online instead of leaving the home.
5	It's easy to consume single served without thinking on storing the rest.
6	Increased convenience technology implies, in China, an easier way to fast consume the product.
7	If people are digital active there is more incitement for companies to offer online sales. When shopping online you becomes digital active.
8	If the people are digitally active new solutions within digitalisation could give competitive edge for a companies.
9	This arrow is since these are the two strongest correlated technology forces for China since they are digitaly active.
10	Increased population will also give an increased number of people in the cities.
11	One of the goals for the FNDP.
12	More people drinks milk.
13	One of the goals for the FNDP.
14	The people demand for convenience gives companies who will come up with new solutions in this segment competitive benefits.
15	When there are more people to serve the market becomes bigger
16	More people can consume.
17	If the demand is higher the consumtion will be affected.
18	If the production in insufficent the import will increase.
19	The environmental awareness forces more sustainable solutions in order to compete in the market.
20	More consumption leads to a bigger market.
21	When people have more money they can consume more.
22	If there are distrust in the domestic milk production it wil benefit the milk import.
23	One of the reasons for the governments consolidation is the distrust in domestic brands.
24	Increased import of milk will affect the overall import.
25	The import and export ratio is a part of the GDP.
26	If the companies are state owned the governing party has more incentive to increase the protectionism.
27	The protectionism will affect the trade with other countries.
28	Through laws and regulations protectionism can be maintained.
29	One of the goals for the FNDP.
30	Milk is seen as a healthy product in China.
31	Healthy products is viewed as quality products.
32	To demand quality the customers needs to know something about the products. When customer are aware of the products they have opportunity to choose more qualitiative products.
33	As brand is seen as quality the demand for quality makes customer aware of brands.
34	Traceability techniques will make it easier to be aware of the origin of the products.

Appendix G – Scenario Analysis, India

In addition to the data presented in this section, the data regarding technology trends and possible value chain competitors from Appendix B and C are also relevant for this scenario.

Politics in India

Due to India's large population they are counted as one of the world's largest democratise. Government's policies, personal interests of politicians and the ideologies of several political parties are factors that affect the political situation in India (Weberience LLC 2014). These political factors' influence reaches all the way to the business environment, affecting the milk packaging industry.

India is on the brink of a fundamental transformation (Mehta 2015). One of the problems with India's political rule is that it is a slow system, making the lead-time between the people's demand and political reaction too long (Mehta 2015).

Another problem with India's democracy is the principles of administration (Mehta 2015). The foundation of the administration is not suitable with democracy (Mehta 2015). Firstly the administration is built on vertical accountability meaning that the government's focus lays on satisfying their superiors rather than the people (Mehta 2015). Secondly the system was built on secrecy with the consequence that little information regarding decisions processes are presented (Mehta 2015). India is therefore ruled with a high level of discretion. The last fact is that India is traditionally centralised when it comes to the state (Mehta 2015). A change is on its way as a result of the pressure from the people (Mehta 2015). And as a consequence the traditional principles of the political system are collapsing and being replaced with a more transparent, people elected system (Mehta 2015).

The political system in India applies a two-government system that consists of an upper and lower house (Laxmikant 2011). The upper house is called "Rajya Sabha" which represents India's state (Laxmikant 2011). The lower house is called "Lok Sabha" which represents the voice of the people (Laxmikant 2011). Until recently, when a new party was formed as a consequence of a civil society mobilization, there have been two major political parties (Mehta 2015). They call themselves the AAP or the Common Man Party and promote an anti-corruption agenda (Mehta 2015). As a new party they had to struggle against the two major parties in their first election in 2014. Their presence forced the major parties to respond to the increased pressure of the people (Mehta 2015).

The recent election, in 2014, put the Bharatiya Janata Party (BJP), led by the Hindu nationalist Narendra Modi, in power (Laughland & Weaver 2014). While BJP won the other major party, Indian National Congress (INC), led by Manmohan Singh had their worst election results yet (Laughland & Weaver 2014). According to BJP's manifest they aim to be more transparent with focus on the people of India (Bharatiya Janata Party 2014). Modi started the political plans called the Jan Dhan Yojana - Swachh Bharat Abhiyan, which roughly translates to the public funding scheme - the clean India campaign (Kaur 2015). This campaign aims toward making India cleaner, for example a large effort into cleaning the Ganges River (Kaur 2015).

The power has changed from the INC, who has had governance over India for the last two mandate periods, i.e. 2004-2014 (Kaur 2015). During the rule of the INC a lot of focus were placed on reforming the financial sector along with public companies and banks (Kaur 2015). Their government implemented the value added tax and worked with pro-industry policies (Kaur 2015).

The milk demand is increasing more than the milk production, leading the BJP government to propose a new National Dairy Plan to increase the milk production and reduce the gap between the demand and production (Nayak 2015). The National Dairy Plan's purpose is to help the small farmers to connect to the organised milk production sector (Bhawan 2014). The aim with the National Dairy Plan is to reach a doubled milk production by 2027 (India Horizonz 2015). The plan can be divided into three main actions (Bhawan 2014):

- Enhance production through breeding, using genetic superior sperm
- Increase the milk procuring system milk product, a system of weighing and testing quality
- Increase knowledge regarding management and learning

The inefficient dairy production, as a result of unorganised dairy farms, has also influenced the government to take action, other than the National Dairy Plan (Dairy Universe India 2015). The government have reduced excise duty on dairy processing machines from 16 per cent to zero to further promote the change into privatising the farms (Dairy Universe India 2015).

India protects their market and has several trade barriers towards EU, e.g. tariffs, non-tariffs, licenses and mandatory testing and certifications (European Commission 2015). India's economic growth and market protection are factors that make EU want to start a Free Trade Agreement with them (European Commission 2015). Negotiations between India and EU were started in 2007. By 2013 the negotiations had not reached an agreement and were therefore ended (The Economic Times 2015). When it comes to market politics, India sees themselves as advocate for the emerging markets. India is pushing for opening of both US and EU's borders (Sveriges Ambassad 2015).

Economy

The GDP in India has developed from 834 trillion dollars in 2005 to 1876 trillion dollars in 2013 (The World Bank 2015c). This development places India on 10th place in GDP rankings (The World Bank 2014a). The GDP in India has had a positive growth the latest years and in 2014 India's GDP growth beat China with a 7.4 % increase (Rapoza 2015). There are thoughts that India is only in its starting pits and will do the same journey as China (Sharma 2015). This is due to the fact that India has not been as open to the free market as China has been the last decades. Furthermore, India has a huge potential labour market and there is not the same technology intensity in India as in Asia (Sharma 2015). Although, the forecasts does not predict that the development will correspond to the development seen in China. Hawksworth & Tiwari (2011) forecasts that in 2050 India will be the third biggest country after China and USA according to GDP. China's GDP in 2050 will be about 60 per cent bigger than India's, indicating that it is hard for India to do a similar journey as China (Hawksworth & Tiwari 2011). India's export and import data shows that between 2013 and 2014 their imports corresponded to 450,199 million dollars and their exports corresponded to 314,405 million dollars, see Table G.1 for historical numbers (Government of India, Ministry of Commerce & Industry 2015). The middle class and the upper class are both growing along with the incomes (Mehta 2015). The total disposable income in India has increased from around 71.8 trillion INR in 2011 to 80.7 trillion INR in 2012 (Trading Economics 2015b). The increase between 2009 and 2012 can be seen in Table G.2 (Trading Economics 2015b).

Table G.1. Export and import for India between 2010 and 2014 (Government of India, Ministry of Commerce & Industry 2015).

	2010-2011	2011-2012	2012-2013	2013-2014
Export (million dollar)	249,816	305,964	300,401	314,405
Import (million dollar)	369,769	489,319	490,736	450,199

Table G.2. India's disposable income between 2009 and 2012 (Government of India, Ministry of Commerce & Industry 2015).

	2009	2010	2011	2012
Total disposable income (million INR)	52,000,000	60,000,000	71,787,870	80,663,730

The dairy market in India

India is the biggest milk producer in the world, producing 16 per cent of the world's milk (Milk Universe India 2015). India is also the world's largest consumer of dairy products (Milk Universe India 2015). Mani and Intodia (2014) compares the projected milk production and milk demand in 2015, forecasting an entire milk segment production of 147 million tonnes while the milk demand will increase to 60 million tonnes. 73 per cent of the Indian dairy market is liquid milk (Nayak 2015). The milk is traditionally consumed as loose milk but the packaged milk segment is increasing (The Economic Times 2014a). Between 2009 and 2014 the consumption of packaged white milk increased, changing the market share from 21 to 28 per cent (The Economic Times 2014a). The packaged milk market can be divided into two segments, plastic pouches and carton packages (Tetra Pak® 2015). The carton packages cover 2 per cent of India's milk consumption compared to plastic pouches that has a market coverage corresponding to 98 per cent (Tetra Pak® 2015). For visualisation of the packaged milk segment and the coverage of carton packages see Figure G.1. The carton package segments is in a positive trend and is increasing. The increase of carton package consumption, between 2008 and 2014, were 52 per cent (Tetra Pak® 2015).

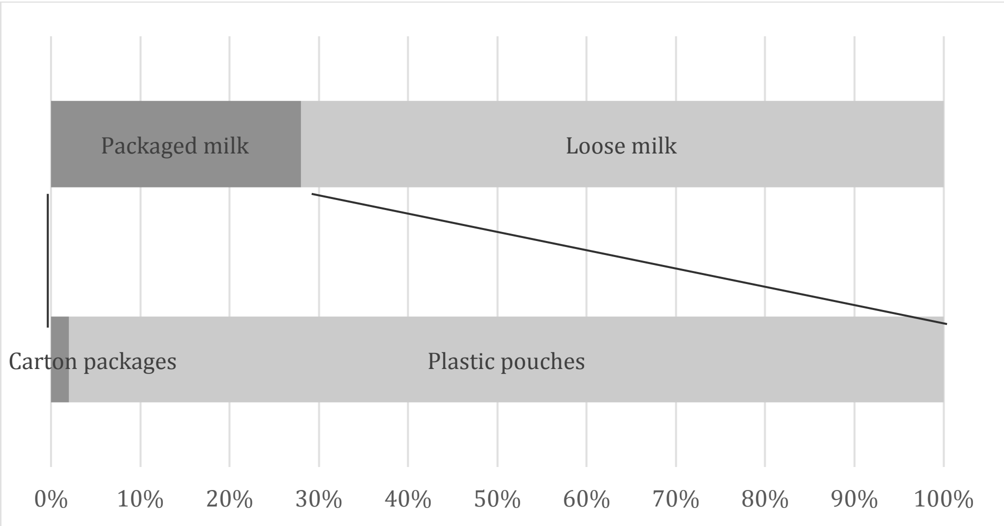


Figure G.1. Visualisation of the Indian packaged milk market.

Many investors are interested in the Indian milk market, the reason for this is that India is characterised by a low milk production cost (Milk Universe India 2015). Moreover, the projected demand for the entire dairy segment in 2022 is 200 million tonnes, compared to 132 million tonnes in 2013 (Nayak 2015).

Milk production is growing annually with 3.3 per cent meanwhile the milk demand grows 5 per cent per year (GAP), leaving India with a higher import/export ratio for milk (Dairy Universe India 2015).

Only 12 per cent of the dairy production is privately and cooperatively owned (Dairy Universe India 2015). According to the Dairy Universe India (2015) the rest of the 88 per cent lays in an unorganised sector. The average farm in India consists of 1 to 3 cows (Yaron 2014). The milk production can easily be increased using better nutrition and farm management (The Economic Times 2014b). The participation from the private sector is steadily increasing, moving more of the production to a more organised segment (Nayak 2015).

The Indian Customers

Population

India's population has steadily increased for several years and in July 2014 India had a population of 1,236,344,631 people (Central Intelligence Agency 2015c; The World Bank 2015c). The United Nations predict that India's population will continue to grow and by 2028 India have overtaken China as the world's most populous country with a population of 1.45 billion inhabitants (BBC 2013). India's life expectancy has almost linearly increased from about 40 years in the 60s to 67.8 years in 2015 (Central Intelligence Agency 2015c; Zhong 2014). The birth rate corresponds to 19.89 births per 1,000 population compared to the death rate of 7.35 deaths per 1,000 population (Central Intelligence Agency 2015c). The population pyramid, in 2025, is presented in Figure G.2. 410 million lives in urban areas and it is a number that is expected to increase with 217 million until 2030 (Worldometers 2015a; Euromonitor International 2014a)

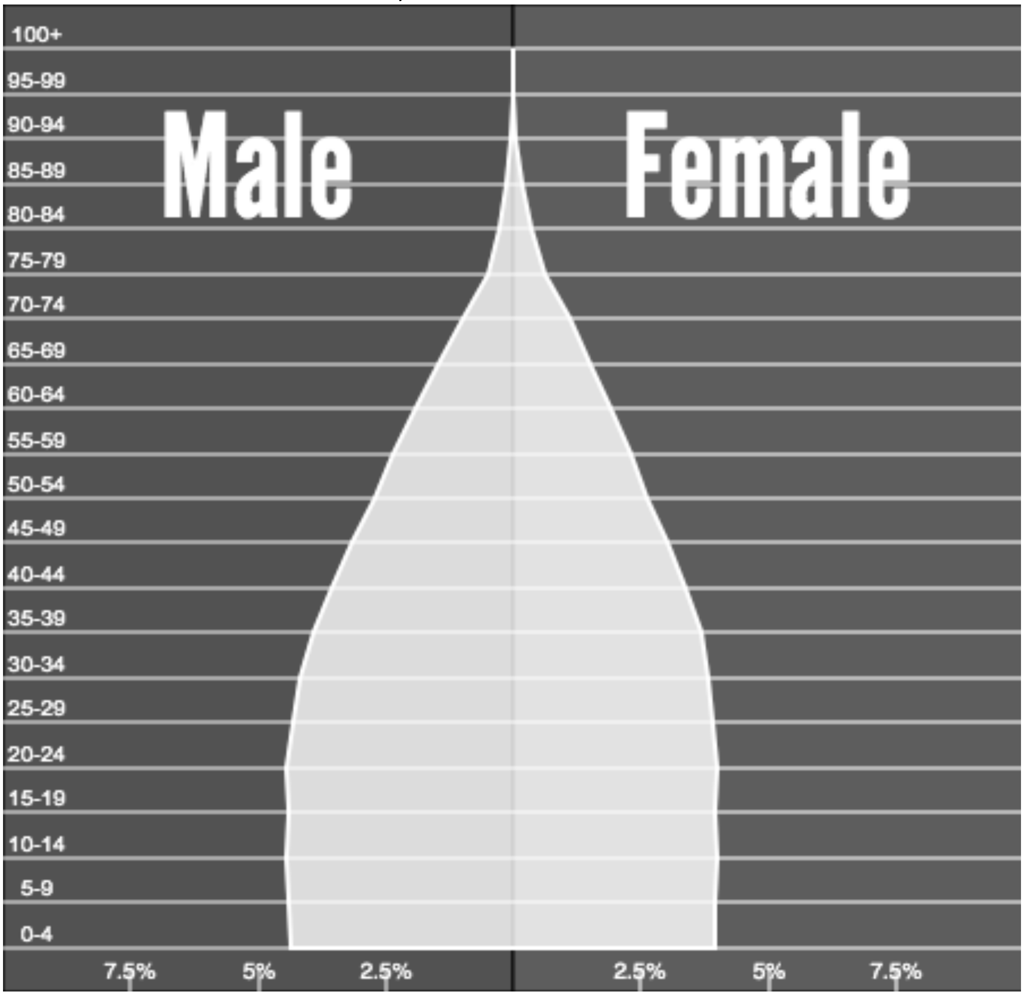


Figure G.2. Population pyramid for India in 2025 (Populationpyramid 2015c).

The characteristics of the Indian customers

There are trends that the Indian consumers become more brand and quality conscious, making him or her a pickier customer (Australian Business Consulting & Solutions 2015). The brand awareness makes marketing important in order to promote products (Banco Santander 2015a). This is an effect of a better-educated Indian population with higher income levels than before (KPMG 2014). However, many Indians will sacrifice quality for a lower price (Banco Santander 2015a). The increased income has made the Indian consumers to consume more, for example it is estimated that between 2010 and 2020 the total food consumption in India will multiply by 2.7 times (Mall, Sanghi, Singhi, Subramanian 2012). Increased organised retail has given a positive growth in retail sales and in 2015 the retail sales are predicted to be 818.33 billion US Dollars and are expected to continue to grow annually by approximately 14 per cent (Australian Business Consulting & Solutions 2015; Choudhary Mahajan 2015).

E-commerce in India was still in its infancy a few years ago, now the trend strives towards a tipping point where there is no chance of turning back (Rawat, Ramola, & Sharma 2014; Shekhar Sharma 2015). In 2009 the e-commerce had sales for 3.8 billion US dollars and in 2013 the sales were estimated to be 12.6 billion US dollars, a number predicted to increase coming years (Rawat et al. 2014). This growth will be mostly driven by durables, accessories and electronics (Rawat et al. 2014). Despite a rapid increase of internet users, 14 per cent growth in 2014, the majority of the population have no internet connection. 243 million, corresponding to almost 20 per cent of the population, was estimated to have access to the Internet in 2014 (Internet Live Stats 2015).

The national view of milk

The demand for milk products in India can be traced to the high number of vegetarians in the country, corresponding to about 40 per cent of the population (Penn State 2013; Abdulla 2014). Vegetarians are missing out on protein since they are not eating meat and milk products are a source of protein that can increase the vegetarians' protein intake (Abdulla 2014). Indians buys their milk in small units rather than bulk units (Yaron 2014). The consumption of small units is an effect of the fact that most of the consumed milk is not processed in any dairy and is sold fresh directly over counter, also called loose milk. However, the trend goes towards packaged milk, especially UHT milk (Abdulla 2014). This trend is partially driven by the customers demand for convenience. UHT milk is already processed and therefore it does not require boiling, which is common in India, before consumption. Former research also indicates that people are looking for milk alternatives that does not require boiling (Euromonitor International 2014b; Karnataka Cooperative Milk Producers' Federation Limited 2015; Das 2011). The trend towards packages is also strengthened by an increasing urbanisation and a growing wealth of the population (Euromonitor International 2014b). The government's focus on food safety and food security questions contributes to the growing demand since the view is that UHT milk, i.e. aseptic milk, offers assurance of safety and hygiene (Abdulla 2014; Yaron 2014).

Scenario Analysis According to Schwartz

Identify Focal Issue or Decision
What does the competitive situation, in India, within the milk packaging industry look like in 2025.

Key Forces in the Local Environment
From the empirical gathering five areas of key forces has been identified. The five key forces for the scenario analysis are politics, economics, customers, technology and threat from possible value chain competitors.

Driving Forces
From the gathered data about India the identified driving forces and trends are presented in Table G.3.

Table G.3. Driving forces for India (identified by the authors).

Politics	Economics	Customers	Technology	Value Chain Competitors
• Bureaucratic political system • Increased political transparency • Increased input from people • National Dairy Plan • Reduced excise duty on machines • Market protection	• Increase in GDP • Increased export • Increased import • Increased disposable income • Dependent on the outside world • World's biggest milk producer • World's biggest dairy consumer • Low milk production costs • Increasing milk demand • Increased milk production • Liquid milk biggest segment of dairies • Inefficient production • Small milk farms • Increased packaged milk segment	• Increasing population • Increased urbanisation • Brand & quality conscious • Price sensitive • Increasing income levels • Growing retail sales • Increased food consumption • Growing e-commerce sales • Low internet usage • Increased internet usage • Small units • High number of vegetarians • Biggest segment of milk: loose milk • Increased UHT demand	• Differentiation • Digitalisation • Convenience • Shelf-life • Sustainability • Traceability	• Arla Foods AB • Stora Enso

Importance and Uncertainty Ranking

Aligned with Schwartz theory, driving forces and trends have been ranked by uncertainty and impact. The ranking and the motivations are presented in Figure G.3.

Politics	**Uncertainty**	**Impact**	**Motivation**
Bureaucratic politic system	2	2	The political system is hard to change and it is hard to not be bureaucratic with such a big system. This does not affect the competition on the market.
Increased political transparency	1	1	The system is changing and transparency is demanded. This does not affect the competition.
Increased input from the people	2	1	People are getting better educated and start to realise that they can affect the political system. Affect the politival system more than the market itself.
National Dairy Plan	3	5	Doubed milk production is the goal, affecting the size of the market assuming all the steps are successful.
Reduced excise duty on machines	1	3	This has already been done and the affect will soon be shown. Reduced cost lowers the entery barriers.
Market protection	3	3	Teriffs affect the affect the competition on the market. Negotiations failed with EU but India still have trade relations.
Governmental price regulations	2	5	The government have had priceregulations a long time and are using them to support domestic milk production and this affect the competition significantly.
Economy			
Increase in GDP	2	2	The GDP have variated in connection with the environment, for example the global financial crisis. Through they still need to consume food and nutrition.
Increased Export	2	2	Export shows a steady increase and affect the marketsize a little.
Increased Import	2	2	Import shows a steady increase and affect the marketsize a little.
Increased Disposable income	2	3	A strong trend can be observed and this force follows the wellfare. The more money customer have the more they can buy.
Dependent on the outside world	1	1	They will always be dependent on other countries since India does not have all raw materials. Does not affect the competition.
World's biggest milk producer	1	4	Beeing the bigest and still wanting to increase the production indicates that they will keep this position. Beeing the biggest also means a big market.
World's biggest dairy consumer	1	4	They have around 40 per cent vegetarians and milk is a good protein source. A large amount of consumer implies a big market.
Low milk production costs	5	3	The milkproduction is mostly done using manpower. The lower costs for machines may change the cost of production. If more machines are used the move towards package machines is reduced.
Increasing milk demand	3	4	The population is increasing leading to a greater demand but the trend of drinking milk also affect. A bigger demand increases the marke.

Increased milk production	2	4	The government wants to increase the production and this will have a big effect on the market size.
Liquid milk biggest segment of dairies	1	3	Liquid milk is the biggest segment by far, it will take a lot to change this. Whether this segment is bigger than the rest does not matter, only actual size does.
Inefficient production	2	2	It can be hard to change the system the farmer use and it will be expensive. An increase in effectiveness does not have to increase the competition on the market.
Small milk farms	4	3	There are a lot of farms and as the economy is increasing the posibilities to expand will be more attractive. With bigger farms bigger investments can be favorble, such as filling and packaging machines.
Increased packaged milk segment	4	5	There are some trends toward a increase but it is hard to break traditions and old trends. If this segment is increased the entire market of packages will increase and the competition will be tougher.
Consumers			
Increasing population	1	4	This trend has been increasing for some time showing a stable trend. An increased population contributes to an increased demand and therefore market.
Increased urbanisation	1	2	People will move to where they can find job opportunities. Urbanisation could have impact in turnover-rate and therefore a small impact in the industry.
Brand & quality conciouss	2	2	This trend is affected by the economic wellfare, the more money is avalible the more brand and quality conciouss. This changes the competition towars more brand and quality.
Price sensitive	3	3	The income levels are increasing resulting in more money to be price sensitive with. With more wealth comes a greater impact on the price sensitivness.
Increasing income levels	2	3	Both GDP and disposable income is increasing which are all connected to the income levels. More money usually means spending a little more on essensials such as food and beverages.
Growing retail sales	2	2	An increased population as well as an increased urbanisation would boost the retail sales. Many retailers might have carton packaged milk.
Increased food consumption	3	3	Increased income, GDP and disposable income will increase the food consumption and therefore also milk.
Growing e-commerce sales	1	1	Strong trends of increased internet usage a growing interest in e-commerce. Affects the electronics market more than food and beverages.
Low internet usage	1	1	India have had a low internetusage which have a low affecton the food and beverage market.
Increased internet usage	1	2	Strong trends of increased internet usage a growing interest in e-commerce. Affects the electronics market more than food and beverages.

Small units	4	2	Personal preferenses can change quickly, it is hard to say if this trend will continue. This will only affect the market if some companies are unable to provde small units.
High number of vegetarians	1	3	Since many Indians have been vegetarians for a long time, it is unlikely that they will start to eat meat. India also a low meat resources which had a part in them beeing vegetarians. Even if they would stop beeing vegetarians it does not imply that they will stop drinking milk.
Biggest segment: loose milk	3	5	Even though the segment of loose milk is decreasing it still covers 72 per cent of the total, meaning that it might still be the biggest segment after ten years. A change towards a bigger segment of packaged milk would definetly affect the entire milk packaging market, since it would increase this market's size.
Increased UHT demand	3	4	The increase of UHT implies a change in tradition from loose milk towards UHT but at the same time from pouched milk towards carton packages, therefore this is a uncertain force. Whanges towards UHT would change the dynamics on the market affecting all companies.
Technology			
Differentiation	2	5	Technology is something that companies constantly needs to work with in order to be competitive. Differentiation and offer something different will give competive edge and affect the competition.
Digitalisation	2	4	Technology is something that companies constantly needs to work with in order to be competitive. Snce Chinese customer are digtially actice, new solutions will have great impact.
Convenience	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The offering today are satisfying enough so new solutions are not likely to have any big impact.
Shelf-life	3	1	Technology is something that companies constantly needs to work with in order to be competitive. Milk has already a long shelf-life so the impact will be low.
Sustainability	2	3	Technology is something that companies constantly needs to work with in order to be competitive. As times goes sustainability will be a bigger issue and therefore some impact.
Traceability	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The impact is set low since this is something customer are not likely to pay for in the near future.

Figure G.3. The authors' uncertainty and impact ranking for India.

Selecting Scenario Logics

The forces with the highest uncertainty and impact were used to build up India's worlds; these were the National Dairy Plan and the packaged milk segment. Figure G.4 displays the created worlds.

Since the National Dairy Plan's goal is to reach a doubled production by 2027 the success of the National Dairy Plan is calculated, using an average linear growth, to reach a production increase of around 80 per cent by 2025. A failed National Dairy Plan, on the other hand, means that the production has not increased 80 per cent;

instead the production will increase according to the recent pace of 3.3 per cent per year. This would result in a total production increase of 38.4 per cent in 2025, compared to the production in 2015.

The other force treats the packaged milk segment. The market share for packaged milk was 28 per cent of the total milk market in 2014, which in 2009 were 21 per cent. The average growth between 2009 and 2014 is 1.4 percentages per year. If the sales continue to grow with 1.4 percentages per year, the packaged milk would cover around 43.4 per cent of the sold milk in 2025. Furthermore, in the world where the packaged milk segment decreases the market shares is assumed to return to 2009's numbers of 21 per cent of the market. The market for packaged milk, in all the Indian worlds, is represented by the production of milk multiplied with the market share of packaged milk.[11]

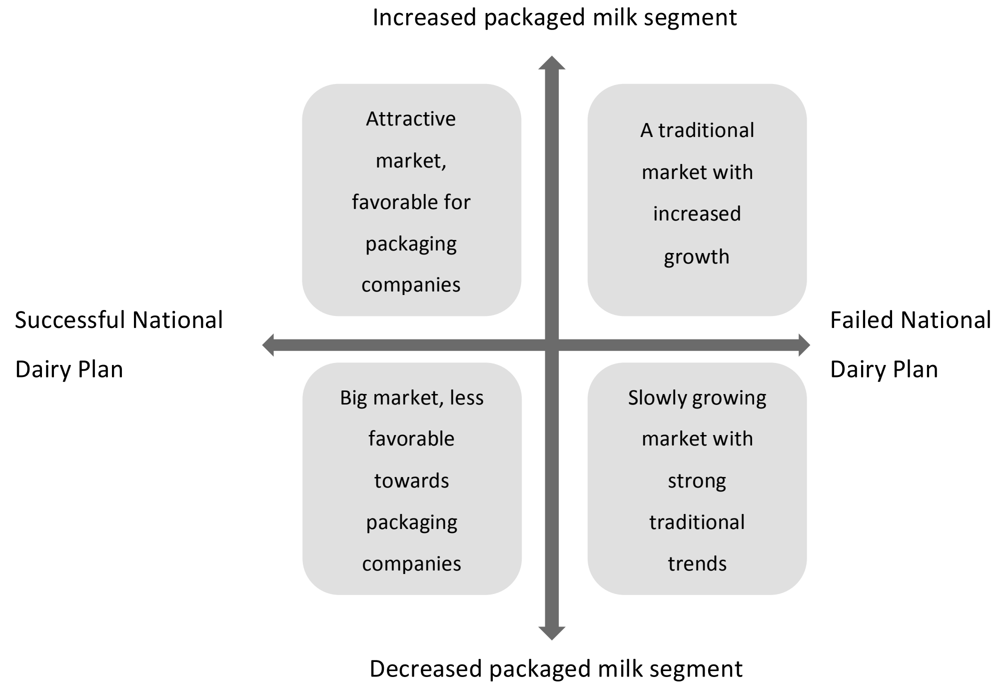


Figure G.4. The constructed scenarios for India.

Fleshing Out the Scenarios

In order for the authors to have internally consistent scenarios the interrelations between the driving forces are presented in Figure G.5.

[11] The calculation does not take export into account, meaning the results might be bigger than the real.

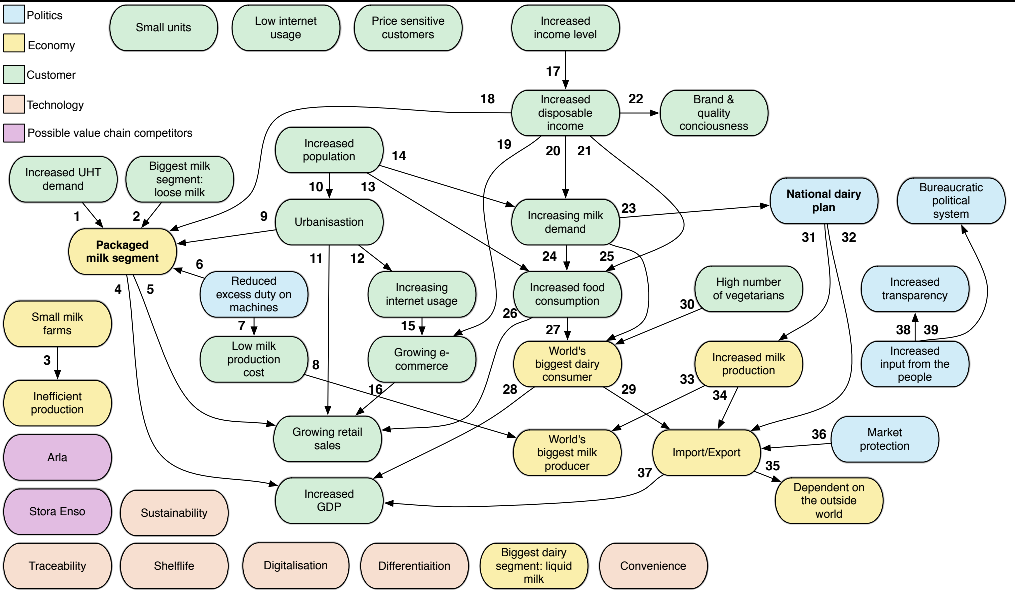


Figure G.5. Interrelations between the driving forces in India.

Arrow	Motivation
1	UHT milk is packed.
2	Because of this less packaged are sold.
3	Missing out on scale-benefits.
4	All sales affect GDP.
5	Packaged milk are sold in retail stores.
6	Packaged milk becomes cheaper.
7	No excess duty decreases the cost of production.
8	A low cost gives incitement for more people to start producing.
9	In cities it is harder to access loose milk.
10	Increased population will also give an increased number of people in the cities.
11	Retail will be more profitable if many people live in a small area.
12	There are more accesspoint to the Internet in cities than rural areas.
13	More people will add to the total consumption.
14	More people will add to the total demand.
15	E-commerce will have potential to more profitable when more people uses internet.
16	E-commerce is one type of retail.
17	With increased income people will have more money left after necessary expensives.
18	With more money people has the possibility to buy more.
19	With more money people has the possibility to buy more.
20	When people buys more the demand will go up.
21	When people buys more the demand will go up.
22	People can afford more expensive and premium products.
23	The plan is an affect of the increasing demand.
24	Milk is a subcategorie to food.
25	A higher milk demand will contribute to the dairy consumtption.
26	Food can be bought in retail stores.
27	Since dairy is one type of food an increased food consumption will contribute to more dairy consumption.
28	When people buy their dairy products the GDP is affected.
29	Since the production is insufficient export is needed.
30	Indians consume dairy products as a substitute to meat.
31	It is the goal for the plan.
32	A succeeded plan will reduce the import of milk.
33	If India produces more milk it is easier to maintain the position.
34	The export will go down if they can produce more themselves.
35	The export indicates that India is not subsistence.
36	It will become harder for foreign companies to export products to India.
37	The import and export ratio is a part of the GDP.
38	Changes to more transparent election systems are already ongoing.
39	The people wants to have more insight in political decision and this will affect the bureaucratic system.

Figure G.5. Interrelations between the driving forces in India.

World 1: Attractive market, favourable for packaging companies
Increased packaged milk segment and succeeded National Dairy Plan

This is the world that has the largest market for packaged milk, as a result of an increase in both the packaged milk segment, increased to 43.4 per cent, and in the domestic production, increased with 80 per cent.

The first step towards this future is that the government’s involvement in the milk industry has begun to reach the milk farms and milk producers. This governmental involvement is divided into three parts. These are to increase the yield of the cattle through breeding, an introduction of a procuring system as well as increased knowledge regarding management. The National Dairy Plan is beginning to make progress and the domestic milk production is increasing. The import and export ratio is affected as a result of the increasing production, which decreases the import. This change goes in line with the observed increase in GDP, though the impact on the competition in the milk packaging market is considered to be low. At the same time the population is increasing, and along with this, the milk demand. The population is increasing, and by 2025 it is assumed that the population will be 1.4 billion inhabitants. The increased population also expedite the urbanisation, which will increase with around 35 per cent until 2025, according to the identified trend. This force affect the packaged milk segment positively and increase this segment, as an urban lifestyle can be assumed to favour convenience of packages rather than loose milk. India’s general income level is increasing. This increase goes in hand with the disposable income, which results in an increased consumption.

Furthermore, the government reduced the excise duty from 16 per cent to zero on milk processing machines, resulting in cheaper equipment. More farmers will therefore be able to afford better equipment, which will increase the efficiency of the milk production. Reduced costs of equipment can also attract investors who are familiar with business and management. The increase of this kind of investors will lead to a more organised and efficient dairy production.

A trend, regarding growing milk demand is observed. At the same time the entire dairy demand is estimated to reach 200 million tonnes by 2022, which is an increase of almost 50 per cent compared with 2013’s numbers of 132 million tonnes. This estimated increase would benefit the packaged milk segment.

In this world the milk production and the packaged milk segment has increased, making it the most prosperous out of the Indian worlds, seen from a packaging industry perspective. The packaging market will have grown, by the end of 2025, with 179 per cent, leaving a bigger market with new possibilities.

World 2: A traditional market with increased growth

Decreased packaged milk segment and succeeded National Dairy Plan

The packaged milk segment has decreased and the traditional loose milk is still dominating the sales. The market for packaged milk will decrease and cover 21 per cent of the total milk market. In this world The National Dairy Plan has been successful and the dairy production has reached the goal of an 80 per cent increase in output.

The National Dairy Plan has been put into effect and the enhanced breeding is improving the genetics and the yield of the cattle. This is a long-term progress gradually showing result. The milk farmers have gained knowledge within management and are trying to implement better management at their farms. This leads to an improved production output. At the same time, the improved milk procuring system weighs and tests the quality of milk all over the country. Furthermore, the trend of increased milk demand will increases the milk turnover, which will motivate an increased milk production, meaning the goals of the national dairy plan will be reached, to increase the production with 80 per cent.

The milk production is increasing with 80 per cent while the dairy demand is increasing with 50 per cent. As a result of the domestic production growth the milk demand is being met to a greater extent and therefore the milk imports will decrease.

The population is increasing and with this comes an increased milk demand, which will increase the milk market. This world's market share for the packaged milk segment is decreasing. This decrease is a result of the end-customers demand for loose milk. The change in the packaged milk segment does not mean that the market for packaged milk itself will become smaller due to the increased milk production and increased population and milk demand. Meanwhile, the 80 per cent increase in the domestic milk production will increase the amount of milk.

The growth in the milk packaging market is calculated to correspond to 35 per cent by the end of 2025. This will give the packaging companies a bigger market to compete in, resulting in new customers and increased production.

World 3: Big market less favourable towards packaging companies

Increased packaged milk segment and failed National Dairy Plan

This world is built around an increase in sales of packaged milk, were consumed milk in packages have come to cover 43.4 per cent of the total milk consumption. In this world The National Dairy Plan failed, resolving in a continued production growth of 3.3 per cent resulting in an accumulated increase of the production of 38.4 per cent by 2025.

When this world begins, the National Dairy Plan is still on going and the means to increase the production have been placed in action. These being breeding of genetically improved cattle, a new procuring system as well as providing learning and management to the milk producers. These have all sprung to action but results have yet to emerge and at the end of 2025 the goal of 80 per cent increase in production is not reached. One reason for this is that the small milk farms do not respond to the government's initiatives.

India's GDP have increased the last decade and further growth is predicted. This trend is affected by the increased consumption. The government has removed the excise duty on milk processing machines, from its original value of 16 per cent. This would result in easier access to machines by lowering required investments to buy production machines. This was done before the beginning of this world and the milk producers began to purchase these machines, resulting in an increased milk production.

The packaging market for this world will grow as a result of the increased milk production and the increased demand for packaged milk. This will result in an increase of the packaged milk market with 115 per cent. The packaging market has more than doubled in size, which will lead to big opportunities for the packaging companies.

World 4: Slowly growing market with strong traditional trends

Decreased packaged milk segment and failed National Dairy Plan

The last of India's worlds is built based upon decreased sales of packaged milk, resulting in a market share of 21 per cent for packaged milk where the remaining 79 per cent are loose milk. In this world the National Dairy Plan fail, and therefore the milk production growth remain at 3.3 per cent resulting in a total growth of 38.4 per cent at the end of 2025.

This world starts out as the rest, initiating the National Dairy Plan. The government wants to increase the production by 80 per cent by improving the management of the farms, increasing yield from breeding cattle and by applying a new procuring system that weighs and tests the milk's quality. The National Dairy Plan is implemented but the results do not reach the goal. The reason for this is that the small milk farms do not respond to the government's initiatives. Despite the failure, the production of milk is increasing in India, but at the same levels as in 2015, which is an annual growth of 3.3 per cent.

Furthermore, the government have removed the excise duty on milk processing machines to increase the sales of these machines. Even though it is now cheaper the milk producers refrain from buying this new equipment, since the machines are too expensive for small milk farmers. The traditional way of drinking milk in India is in form of loose milk, which does not require a package. In this world, the loose milk demand is so strong that the trend of increased packaged milk breaks, and the amount of loose milk drinkers increases. Since the people want their milk loose, the market share for the packaged milk segment is decreasing. The decrease in the packaged milk segment together with the failed National Dairy Plan results in a packaging market with almost the same size as in 2015.

This world is the least beneficial of India's worlds, seen from the aspect of milk packaging industry. The milk production will increase with 38.4 per cent; this increase will increase the amount of milk that can be packaged. The decrease of the packaged milk segment results in a 21 per cent market share for packages. The packaging market in this world is 1.04 times the size of the market in 2015. Since the package markets size is almost the same throughout this world, this world's market size can be counted as an as is state.

The remaining forces

The other forces identified for India, those that have not been mentioned, are forces that do not affect the National Dairy Plan or the packaged milk segment. Still, these forces have impact on how the competitors shall act in order to be competitive in the environment that exists.

The input from the people increases as a result of the change in the political system. The old political system was based on traditional principles while the new system is changing towards a more transparent people elected system.

The political transparency is increasing as result of the input from the people. The political party in power also emphasises this in their manifesto.

The bureaucratic system is changing towards being less bureaucratic. This is a result of the political changes influenced by the input of the people.

The market protection in India will continue to be high and this will affect the import and export of the country and therefore indirectly affecting the GDP.

India's dependence of the outside world will continue but weaken, which will have an impact on the import. The plans to increase the domestic production will reduce their imports and their dependence to the outside world.

India is the World's biggest milk producer and this trend will continue since the milk production costs are low and that there are plans to increase India's milk production. India will therefore have a big milk market.

India is the World's biggest dairy consumer, which they will continue to be since there will be an increase in the population, the food consumption and milk demand. At the same time a high number of the Indian population is vegetarians. This will continue to strengthen the big dairy market. Consequently affecting the milk market.

The low milk production costs is a force that is uncertain. The reduced excise duty on machines will affect the outcome of the production costs.

Liquid milk will continue to be the biggest segment of dairies and this market will therefore continue to be big in India. To have packaging solutions that are suitable for this kind of product is therefore needed in order to be competitive as a packaging solutions supplier.

India's dairy market consists mostly of small milk farms and the average herd size is 1-3 cows per dairy farm. The big amount of small farms will make it hard to sell bigger filling machines since the small farms does not produce big quantities of milk. Based on this, small and cheap filling machines can therefore be assumed to be a popular filling machine.

India's population is becoming more educated, which leads to an increased income level and disposable income. As a consequence the Indian customers are becoming more brand and quality conscious, which is a trend that is expected to continue.

Price sensitivity is a property that the Indian customers possess. This makes the Indian market more susceptible to cheaper solutions. Offering cheap packaging solutions will satisfy the demand for a low price. The demand for packaged milk will increase with a decreased cost for packaging solutions.

The retail sales are increasing and this trend is expected to continue. This force is connected with the increasing urbanisation and increased consumption.

Growing e-commerce sales is a new trend that is driven by the increasing disposable income and the increasing Internet usage. This trend is mostly driven by the sales of electronics, accessories and durables and therefore does not have a high impact on the milk segment.

India has a low ratio of internet users, even though there is an increased internet usage. Only around 20 per cent of the population had Internet access in 2014, which indicates that the online communications channel is not optimal since there is low number of customers active in this channel. Although, since the Internet usage is increasing there are reason to believe that it will be more attractive in the future.

Small units are a force that is not connected with any of the other forces. It is a consumption pattern that is uncertain and it is hard to foresee whether this will change or not. It is therefore preferable to have the capability to change package

shape. The impact that this factor has on the milk packaging industry is that it regards what kind of solutions to supply.
The technical force, differentiation, is increasing. This force indicates a demand for differentiation, which can be reached through sticking out using technical means.

Digitalisation is increasing and shows a big potential to be applicable on packages. The Indian consumers are becoming more active on the Internet and are shopping more through e-commerce. This indicates that they are becoming more digitalised.

The convenience of the technological aspect will continue. The technical development will continue to move towards more convenient solutions.

The shelf-life is a force that has a low impact. The segment of pouched milk covers large parts of the segment of packaged milk. This being non-aseptic milk indicates a less interest in shelf-life for milk.

The sustainability trend will continue to increase, leading to more sustainable technical solutions.

Traceability is a force that implies a possibility to trace, for example where the raw material came from as well as following the advance through the supply chain. This technical solution can help fulfil the demands of customers whom are brand and quality conscious.

Regarding possible threat from value chain competitors there are no indications that either Arla or Stora Enso are interested to integrate upwards or downwards. Arla want to develop their core business, gaining more customers and creating a more effective organisation where costs are rationalised. This indicates that Arla is focused on their current core organisations and does not have any ideas of expanding within the value chain. Stora Enso has divisions that are operating within the packaging segment. Although, none of these compete with the dairy packaging market, Stora Enso is rather a supplier of material towards this market. Since they want to develop their customers organisations it is reasonable to believe that Stora Enso does not want to forward integrate in the value chain within the dairy packaging market. Furthermore, Stora Enso sells assets that are not aligned with the core business, indicating that Stora Enso will continue with the business that is conducted now.

Implications

World 1: Attractive market, favourable for packaging companies

Increased packaged milk segment and succeeded National Dairy Plan

The growth of the packaged milk segment leaves a lot of new customers without predetermined preferences towards either PET bottles or carton packages, giving the competitors the same conditions to penetrate the market. Krones can offer the flexibility of a plastic package, which is good for the dairies when urban areas are growing, and end-customers preferences change. This will give Krones a competitive edge in this world. Although, it is worth mentioning that Krones have a bigger focus on their customers than on expansion, meaning that they will divide their resources between current customers and increasing their presence in India. Elopak's focus is in the European market, although Elopak would want to expand in India since this market will be too big to ignore. The growth in the Indian urbanisation is something that could favour Elopak. Urban areas will increase the turnover of packages; as well as packaged milk will be demanded to a greater extent. The higher turnover of packages reduces the requirement of long shelf-life, removing the disadvantage with Elopak's non-aseptic packages. SIG has a focus on their customers but since India is the world's leading milk producer they also have the potential to become the world's largest packaging market. The increasing packaging market is therefore too big to ignore. SIG wants to be a part of this market and will therefore compete for market shares. SIG's expansion could benefit Greatview in the long-term because of their SIG compatible paperboard solution. Since Greatview has large unused capacity in their converting plants, they have now the opportunity to scale up their production and increase their international presence.

World 2: A traditional market with increased growth

Decreased packaged milk segment and succeeded National Dairy Plan

The size of the packaging market in 2025 has increased with 35 per cent compared to the market size in 2015. The low market growth will result in a slight change from the as is state. Both Greatview and Elopak are smaller than SIG and Krones indicating that they have a motivation towards increasing their presence even when the market growth is lower than in world one, since every new customer make a noticeable increase in their customer base. Greatview will be the company that will fight the hardest for this world's market since they want to increase their international presence. Meanwhile Elopak, whom are mainly focusing on the European and American market, will be passive and observe. Krones and SIG, whom are focusing on existing customers, will not increase their activity in the Indian market. This is because the market growth is too small to be interesting in comparison to their high revenue streams.

World 3: Big market less favourable towards packaging companies

Increased packaged milk segment and failed National Dairy Plan

The milk packaging market has increased with 115 per cent and therefore there is a strong incitement for all the companies to increase their presence in India. Krones will market themselves as a customer-oriented company that offer products that differs from their competitors. Also Krones will try to be a collaboration partner early in farmers expansion phase with their plant solutions, which gives them opportunity to lock-in customers. Elopak's way in to the market is through the urban areas where the turnover rate is higher and non-aseptic milk does not need to be stored for a long time. However, Elopak will have higher barriers than their competitors since the UHT-milk is promoted as the safe milk alternative. In the UHT-milk segment SIG and Greatview already have processes and could be supposed to be better on implementing solutions for this demand. Greatview has a higher net profit margin and in order to gain market shares they can out conquer their competitors by reducing their prices to a greater extent. However, Greatview are dependent on SIG in order to have someone to sell their packaging material to. SIG defends their positions by fighting to keep their customer with the help of good customer-care.

World 4: Slowly growing market with strong traditional trends
Decreased packaged milk segment and failed National Dairy Plan

The packaging market in this world can be compared with an as is state of the market from 2015, increasing with only 4 per cent. The absence of significant growth for over ten years result in less interests from the different companies. None of the companies will withdraw their existing presence, due to existing customers need for package material to their filling machines. There will be some rivalry within the supply of package material as a result of Greatview's increased international presence. This rivalry will mainly be between SIG and Greatview since Greatview have the ability to supply SIG compatible products.

Selection of Leading Indicators and Signposts

An early warning that supports the worlds where the packaged milk segment increases is the customer preferences. If these are changed towards favouring packaged milk these worlds are likely to be realised. For example, if the Indian consumer stops boiling the milk is one indicator to monitor. Another is if the Indian consumer trusts the packages, i.e. they believe that the packages do work and will keep their milk fresh. In the worlds where the packaged milk segment decreases the same factors should be monitored, although their direction will be the opposite. For example, more people boil their milk and the consumer does not believe that the packages keep the milk fresh.

Regarding the National Dairy Plan factors to monitor is the pillars of the plan. Regarding the breeding genetics it should be monitored if the cows in India becomes better over time. If they do it will indicate that the production will increase, and therefore the National Dairy Plan will be successful. The opposite regards if it fails. Regarding the procurement system one factor to monitor is the spread of this. The factors to monitor here is the amount of milk that is weighed and tested in this procurement system. In regards to the knowledge about management, the factor to monitor is if it becomes a fewer number small farms. This will indicate that the knowledge has been implemented and that they are becoming more organised. This indicates that the National Dairy Plan will succeed. If these three pillars work in the same direction it can be derived whether the National Dairy Plan will succeed or fail. For example, if the cows show better yield, the amount of weighed and tested milk is increased by the help of the procurement system and that the farms in India grow bigger indicate that the plan will succeed.

Appendix H – Scenario Analysis, Mexico

In addition to the data presented in this section, the data regarding technology trends and possible value chain competitors from Appendix B and C are also relevant for this scenario.

Politics in Mexico

The political outline in Mexico relies on presidential democracy and Mexico is a federal republic (Banco Santander 2015b). Three parties dominate the political landscape. These are (Banco Santander 2015b):

- National Action Party (PAN) – conservative liberals
- Institutional Revolutionary Party (PRI) – centre
- Party of the Democratic Revolution (PRD) – socialists

In the 2000's election PAN ended the 70 years PRI governance (Banco Santander 2015b; Sveriges Ambassad 2014). The change of governance was a start for more political openness and increased respect for human rights (Sveriges Ambassad 2014). After two mandate periods PRI is back as the leading party. Enrique Peña Nieto was installed as president in 2012 but neither in the senate nor in the congress does PRI have its own majority (Sveriges Ambassad 2014). After years of political gridlock, which has obstructed agreement of political reforms, did the three biggest parties agreed on "Pacto por México" (Sada 2013). Nieto has told that the focus will be on strengthening the economic potential and increase the public welfare (Business Sweden 2012). Altogether the pact consists of 95 initiatives within five categories, these categories are (Sada 2013):

- Democratic governance
- Transparency, accountability and combating corruption
- Rights and liberties
- Security and justice
- Economic growth, employment and competitiveness

All reforms in the pact should, according to the goal, be accomplished until the second semester of 2018 (Sada 2013). However, the public is still sceptical regarding however the change will increase the public welfare as promised (Sveriges Ambassad 2014).

Mexico scored 35 out of 100 in the Transparency International corruption perceptions index (Transparency International 2015). Triggered by the abduction of 43 students, massive demonstrations protesting against corruption into the government were held in 2014 (Estevez 2014). Therefore, the provisions regarding anti-corruption in the "Pacto por México" are of great importance. Without a political will to enforce anti-corruption laws the public's confidence in the government will continue to suffer (BloombergView 2014).

In the next presidential election, held in 2018, Nieto cannot be re-elected since the president is not allowed to rule for more than one mandate period at a time. (Banco Santander 2015b).

Trade regulations
Starting in the end of the eighties the development strategy has focused on economic liberalisations and market opening (Business Sweden 2012). Mexico has twelve free trade agreements with over 40 countries (Business Sweden 2012). As the only country in the world, Mexico has both a free trade agreement and a strategic partnership agreement with the European Union (Sveriges Ambassad 2014). Free trade agreements and close connection to the US has made Mexico a receiver of investments from foreign companies (Sveriges Ambassad 2014).

Regarding dairy products, the government issued labelling requirements for both domestic and imported products. The labels should provide information about saturated fat and sugar for example. Lawmakers hope this will make people aware of calorie intake and deal with the rising obesity problem (McKnight 2015). The import of dairy products from the US, representing about 75 per cent of the market, is duty-free. However, a fiscal reform coating high calorie products with taxes might affect dairy products (Hernandez 2014).

Economy

Since 2005 Mexico's GDP growth has been positive and has grown from 866,346 million dollars in 2005 to 1,260,915 million dollars in 2013 (The World Bank 2015a). This made Mexico the fifteenth biggest economy in the world in 2013, according to GDP (The World Bank 2014a). Mexico had in 2013 a growth around 1.4 per cent and in 2014 the growth has increased 2.1 per cent (The World Bank 2015d). It is expected that the growth will continue to increase and correspond to 3.5 per cent in 2017 (The World Bank 2015d). Furthermore, Mexico is the fifteenth biggest exporter in the world with exports corresponding to 406 trillion dollars (Central Intelligence Agency 2015e). United States is the biggest export partner accounting for 78.8 per cent of Mexico's exports (Central Intelligence Agency 2015f).

In 2013, 45 per cent of Mexico's population lived in poverty (U.S. Embassy 2013). Furthermore, the average disposable income per household is 12,850 dollars per year (OECD 2015). Of the OECD members this ranks Mexico on place 35 out of 36 (OECD 2015). Furthermore, the trend regarding the disposable income per household is negative with an average increase, since 2008, corresponding to -1.4 per cent (OECD 2015).

The Mexican dairy market
In 2013 Mexico produced 11 million tonnes of milk (Food And Agriculture Organization Of The United States 2015). The milk production has had a stable growth in milk production even though there is a milk deficit of around 30 per cent

in Mexico (Hernandez, Salcido & Branson 2013). This has led to increased milk imports where US is a big supplier of dairies, having 76 per cent of the Mexican dairy imports (Arthur 2014). The forecast for dairy imports is that it will increase slightly but stay fairly stable due to Mexico's goal to increase domestic production (Hernandez 2014).

The dairy demand in Mexico is expected to grow due to an increased dairy consumption. The reasons for the increased consumption are the increasing middle class, political initiatives, increased dairy nutrition awareness and food service developments (Arthur 2014). The demand for milk in Mexico consists of fresh milk and UHT milk (Hernandez 2014). In Northern Mexico the consumption is fresh milk and accounts for near 56 per cent of the milk demand meanwhile, in the central region, UHT is more popular and corresponds to about 44 per cent of the milk demand (Hernandez 2014). Furthermore, specialised products are becoming more popular, for example lactose free and high calcium products become more popular (Hernandez 2014).

The Mexican Customers

Population

Mexico has the twelfth biggest population in the world with a population of 120,286,655 people (Central Intelligence Agency 2015a). The population in Mexico is expected to increase, and in 2025 the population is forecasted to be 138,195,000 (United Nations, Department of Economic and Social Affairs 2015). The age distribution of the population can be observed in the population pyramid in Figure H.1**.** In 2013, 79 per cent of the population in Mexico live in urban areas and this trend has been stable since 2010 (The World Bank 2014c).

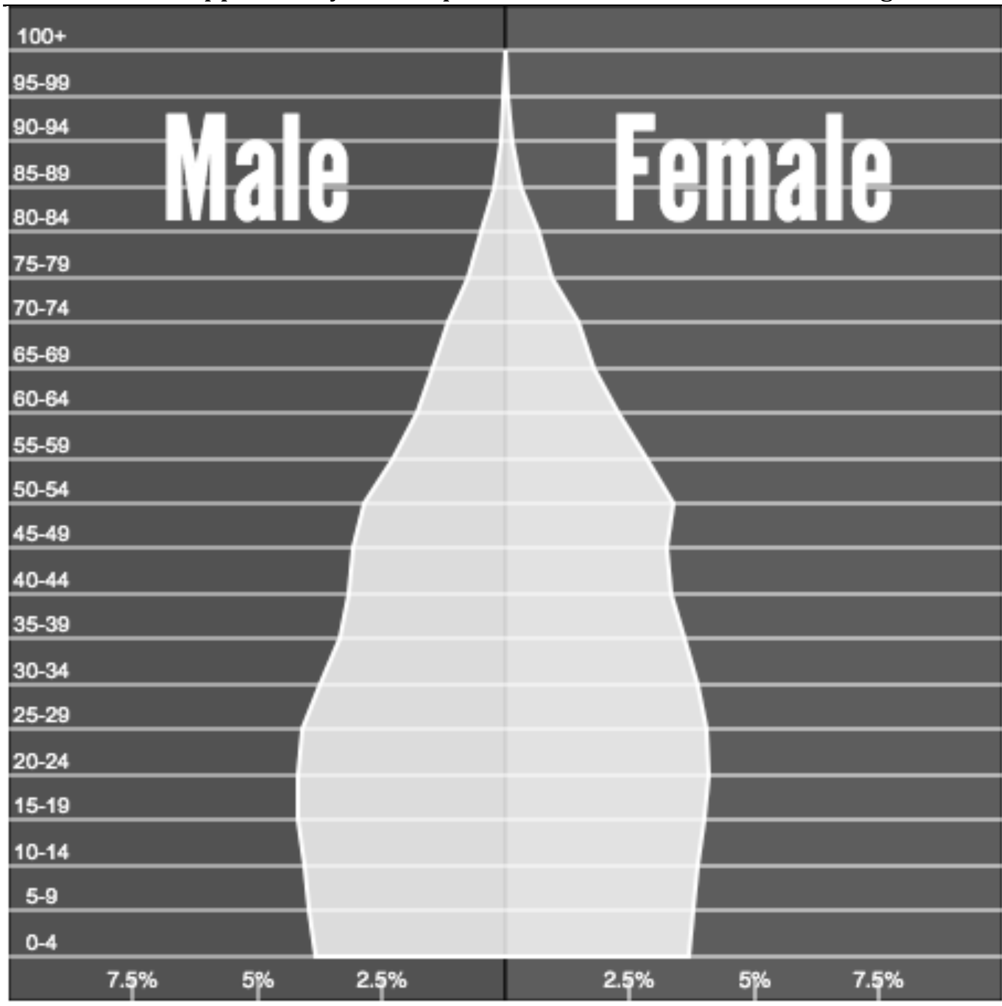


Figure H.1. Population pyramid for Mexico in 2025 (Populationpyramid 2015c).

The characteristics of the Mexican customers

The Mexican consumer is a consumer that is loyal toward brands (Garcia, Lacayo & Martinez 2012). Furthermore, the Mexican consumers are aware of different brands, they are influenced by family and friends and they appreciate price promotions (Banco Santander 2015). Moreover, the Mexican population are educating themselves to a greater extent, which means that the overall purchasing power will increase due to higher salary after education (Agriculture and Agri-Food Canada (AGR GC) 2013). Furthermore, in 2011, 25 per cent of average Mexican household's expenditures were on food and non-alcoholic beverages (Banco Santander 2015).

As a large amount of the Mexicans live in urban areas together with an increased working population the consumers get less time, which means that they appreciate speed and convenience (AGR GC 2013). An emerging trend is the health trend in Mexico (AGR GC 2013). In 2010 Mexico became the most obese country in the world, this has had made the consumer to become more health aware and therefore they appreciate health products to a greater extent (AGR GC 2013). As a consequence the demand for healthy and enriched products, with for example more vitamins, is increasing (AGR GC 2013). Another trend in Mexico is that organic products are becoming more coveted (AGR GC 2013). The organic beverages and organic packaged food market is estimated to almost double its value in 2015 compared to 2010 (AGR GC 2013).

The national view of milk

In Mexico the biggest segment of milk is fluid milk, corresponding to about 96 per cent of the total milk consumption per year (Index Mundi 2015). In 2013 the total fluid milk consumption per capita was 31.2 litres per year and it has been decreasing since 2008 where the consumption per capita was 38.9 litres per year (Canadian Dairy Information Centre 2015).

Scenario Analysis According to Schwartz

Identify Focal Issue or Decision

What does the competitive situation, in Mexico, within the milk packaging industry look like in 2025.

Key Forces in the Local Environment

From the empirical gathering five areas of key forces has been identified. The five key forces for the scenario analysis are politics, economics, customers, technology and threat from possible value chain competitors.

Driving Forces

From the gathered data the identified driving forces and trends are presented in Table H.1.

Table H.1. Driving forces for Mexico (identified by the authors).

Politics	Economics	Customers	Technology	Value Chain Competitors
• Increased collaboration over political parties • Transparency • Accountability • Battle against corruption • Strengthening social rights • Strengthening the judiciary • Development of economic welfare • Open trade system	• Increased GDP • US trade partner • Decreased disposable income • Stable milk import • Expected growth in dairy consumption • Growth in specialised products • Increase in domestic milk production	• Increasing population • High urbanisation • Loyal customers • Expected increase in purchasing power • Demand for speed and convenience • Increasing health awareness • Growth in enriched products • Increased demand for organic food • Biggest milk segment: fluid milk • Decreased milk demand • Appreciate price promotions • Big expenditures on food and non-alcoholic beverages	• Differentiation • Digitalisation • Convenience • Shelf-life • Sustainability • Traceability	• Arla Foods AB • Stora Enso

Importance and Uncertainty Ranking

Aligned with Schwartz theory, driving forces and trends have been ranked by uncertainty and impact. The ranking and the motivations are presented in Figure H.2.

Politics	**Uncertainty**	**Impact**	**Motivation**
Increased collaboration over politcal parties	3	1	Often collaboration collapse. The collabortion regards different issuses than milk.
Transparency	4	2	Many things needs to be in place before. This regards the politicians more and not the milk industry.
Accountability	4	1	Many things needs to be in place before. This regards the politicians more and not the milk industry.
Battle against corruption	3	3	Necessary to do. Since it is corrupt it will not be easy. If succeded it might impact how trade is done.
Strengthening social rights	2	1	One of the part in "Pacto por México". Will not influence the milk industry.
Strenghtening the judiciary	3	2	One of the part in "Pacto por México". Will not influence the milk industry.
Development of the economic welfare	3	3	One of the part in "Pacto por México". Better economics usually benefits the industry.
Open trade system	1	4	It is something they already have. Makes it easier to import milk products.
Economy			
Increased GDP	2	2	Nothing points towards anything else but it does not correlate with the competition
U.S Trade Partner	1	3	The open trade regulations points towards a continous trade. Has affect on how the market will develop.
Decreased Disposable income	4	3	The economic development points towards a break in this trend. Will change the consuming habits.
Stable milk import	2	2	Open trade regulations and a demand will keep it stable
Expected growth in dairy consumption	2	4	Dairy nutritions, increased middle class makes this likely to happen. Will increase the market for the packaging companies.
Growth in specialised products	2	1	Lactose intolerance is common in Mexico. Does not matter for the company if it is specialised or regular products
Increase in domestic milk production	1	4	Target goal for the milk industry and the production is insufficent. Will enlarge the market size in Mexico.
Customers			
Increasing population	1	3	The trend of increasing population is inevitable. More people leads to a higher demand.
High urbanisation	1	1	People are not likely to move to rural areas. The impact should already have taken place.

Loyal customers	2	3	
Expected increased purschasing power	4	3	Has been fluctuating and earlier the disposable income decreased. If the customer gain more purschasing power premium products will benefit.
Demand for speed & convenience	2	2	Mexicans already have these preferences and it is likely to continue. The consumers milk habits are not likely to change because of just this and the impact is therefore set low.
Increasing health awareness	1	3	The obesity in Mexico force them to be more healt aware. Could have impact on the choice of products.
Growth in enriched products	2	2	As an effect of the increase health awareness. Are packaged in the same packages.
Increased demand for organic food	3	2	If the customer wants to pay more for organic food is uncertain. Organic food has the same packages as regular food.
Biggest milk segment: fluid milk	1	2	A trend that seems to continue. More of a as is state for the competitors.
Decreased milk demand	5	4	Health awareness, governmental efforts to increase makes this force uncertain. The market will be smaller.
Appreciate price promotions	2	2	Everybody appreciate price promotions, price promotions on milk is unusal
Big expenditures on food and non-alcoholic beverages	3	2	With a increased middle class the share spent onl might decrease due to different prioritation. The overall consuming will remain on the same level.
Technology			
Differentiation	2	4	Technology is something that companies constantly needs to work with in order to be competitive. Differentiation and offer something different will give competive edge and affect the competition
Digitalisation	2	4	Technology is something that companies constantly needs to work with in order to be competitive.The demand of digitally products are uncertain therefore it is given a middle impact.
Convenience	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The offering today are satisfying enough so new solutions are not likely to have any big impact.
Shelf-life	3	1	Technology is something that companies constantly needs to work with in order to be competitive. Milk has already a long shelf-life so the impact will be low.
Sustainability	2	3	Technology is something that companies constantly needs to work with in order to be competitive. As times goes sustainability will be a bigger issue and therefore some impact.
Traceability	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The impact is set low since this is something customer are not likely to pay for in the near future.

Figure H.2. The authors' uncertainty and impact ranking, Mexico.

Selecting Scenario Logics

The Mexican forces with the highest impact and uncertainty are milk demand and purchasing power. These forces are used to create the four possible future worlds; these worlds are displayed in Figure H.3.

The milk demand in Mexico has decreased with approximately 20 per cent between 2008 and 2013. The average decrease in the milk demand corresponds to a 4.4 per cent decline per year. These 4.4 per cent are used to calculate the decrease, which sums up to an exponential decline to a total of 36.3 per cent at the end of 2025. In the worlds where this force is increased, no observed or calculated numbers of the milk demand exist. No quantitative calculations apply for the force purchasing power either, this force will simply either increase or decrease.

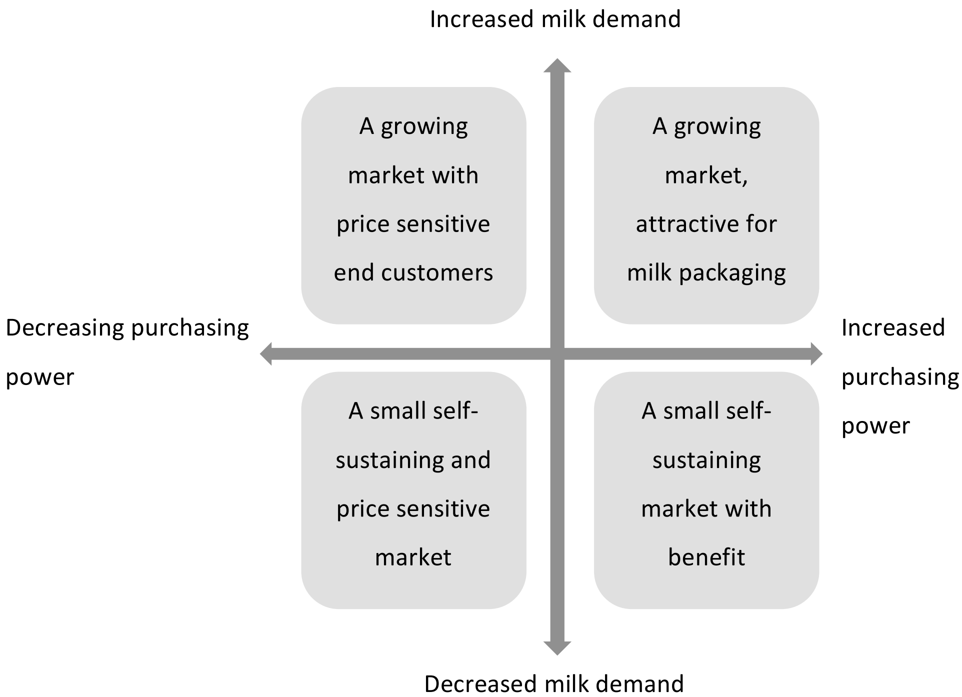


Figure H.3. The constructed scenarios for Mexico.

Fleshing Out the Scenarios

In order for the authors to have internally consistent scenarios the interrelations between the driving forces are presented in Figure H.4.

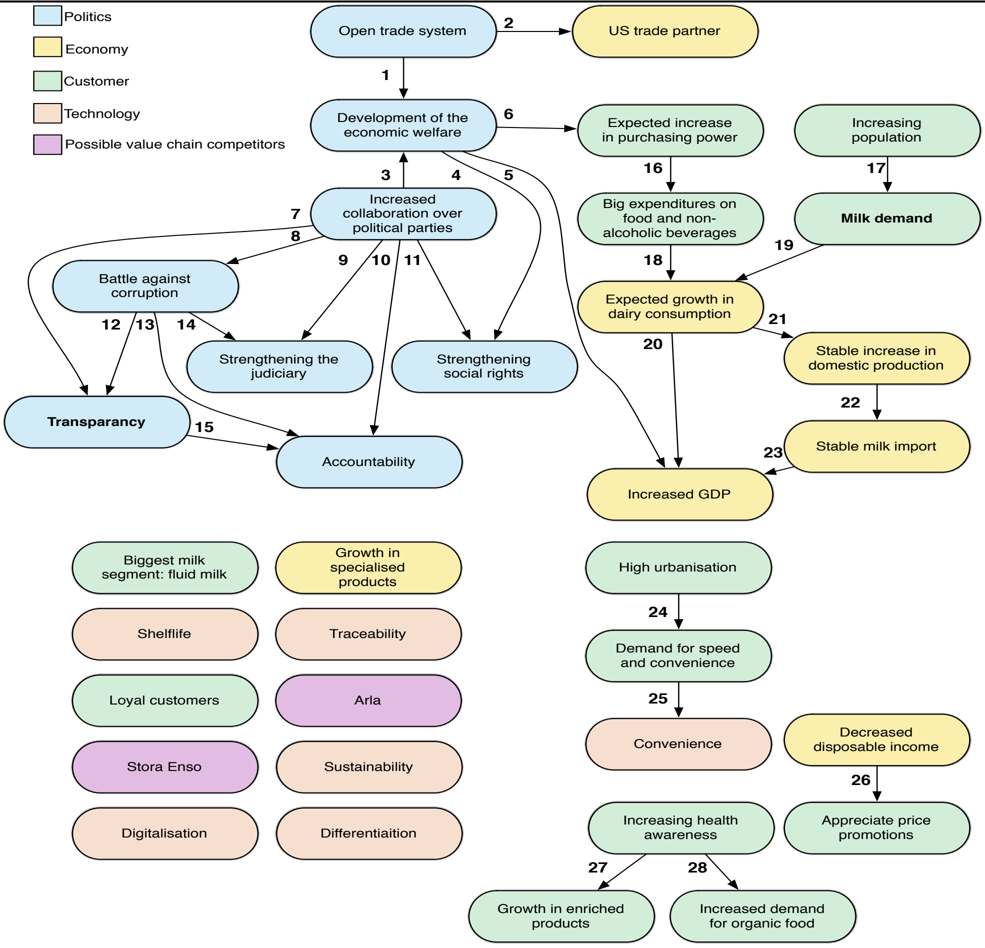


Figure H.4 Interrelations between the driving forces in Mexico.

Arrow	Motivation
1	Trade stimulates the economy.
2	A open trade regulation makes it easier to trade with the US.
3	One of the goal in "Pacto por México"
4	With a better economy it is possible to strengthen the social welfare.
5	With better economy more services and products can be traded.
6	With better economy people will get more money.
7	One of the goal in "Pacto por México"
8	One of the goal in "Pacto por México"
9	One of the goal in "Pacto por México"
10	One of the goal in "Pacto por México"
11	One of the goal in "Pacto por México"
12	One way to battle the corruption is to increase transparency
13	If the corruption goes away the people can trust the politicans more.
14	Without corruption more justice will be in place.
15	If it easy to follow the politicans work the accountability will rise.
16	With a increased purchasing power more money could be spent on food and beverages.
17	More people will demand milk.
18	The expenditures will partly be on dairy products.
19	If there is a demand the consumption will go up if someone can supply the demand.
20	Increased sales adds to the GDP.
21	A bigger market gives more incitement to increase the production.
22	An increase in production means that there is no need for increase import with an increased demand.
23	Import affects the import export ratio which is part of the GDP.
24	Generally a faster pace of living is seen in cities then rural areas.
25	The people demand for convenience gives companies who will come up with new solutions in this segment competitive benefits.
26	Products with reduced prices are favourable with less money to spend.
27	Enriched products contains calcium and other things viewed as healthy.
28	Organic food has not been sprayed with pesticides.

Figure H.4 Interrelations between the driving forces in Mexico.

World 1: A growing market, attractive for milk packaging companies
Increased milk production and increased purchasing power

In the beginning of this world, the Mexicans have had an historical decreased milk demand. The demand has decreased with approximately 20 per cent between 2008 and 2013 while the general dairy segment's consumption has increased. As a consequence of the increased health awareness increases, Mexicans will begin to appreciate milk more. Furthermore, the trend regarding adding vitamin and mineral in white milk will increase; this trend will increase the milk demand. The Mexican population is forecasted to increase with approximately 15 per cent by the end of 2025. The increased population will further influence the milk demand positive. Furthermore, the demand for milk will also be affected as the Mexicans begin to educate themselves, leaving them with a higher disposable income. This increase in disposable income will increase the Mexicans' purchasing power and their willingness to consume. The milk demand will therefore increase slowly the first couple of years until the effect of the purchasing power will begin to boost the milk demand.

Mexico wants to increase their domestic production of milk, since they have a deficit of around 30 per cent. This will reflect in the imports, which will decrease. The deficit itself will remain, even if the percentage of deficit will be reduced, and this is due to the increased milk demand. Since 76 per cent of the dairy import comes from US this relationship will continue to be important for Mexico.

The total Mexican milk packaging market in this world is increasing; this is due to an increase in milk demand, the increase in domestic milk production and the increase in purchasing power. With a growing market come possibilities to take market shares as well as gaining new customers.

World 2: A growing market with price sensitive end-customers
Increased milk demand and a decreased purchasing power

In this world the milk demand will start to increase. This increase is partially caused by the health awareness trend as well as the increasing population. As the demand is increasing, Mexico's motivation towards increasing the domestic milk production is also increasing. Mexico has a goal to increase its domestic milk production since they have a deficit of approximately 30 per cent. Since both the milk demand and the milk production are increasing this deficit will remain. At the same time, the increased domestic milk production will affect the imports, resulting in decreasing milk imports. The disposable income will decline, resulting in a decreased purchasing power. With the decreased income a general reduction in consumption will occur as well as making the end-customers more price sensitive.

The increased milk demand and the decreased purchasing power will together result in a larger milk packaging market size with customers that have less money, i.e. they are price sensitive. This gives companies, which can offer packaging solutions to a lower price, a bigger market with opportunities to expand.

World 3: A small self-sustaining market with benefit advantages
Decreasing milk demand and an increasing purchasing power

In this world the milk demand will continue to decline with the same pace as the trend indicates, leading to a further decrease of 36.3 per cent over the next ten years. The purchasing power will increase along with the higher disposable income, as the Mexicans becomes more well educated. The milk market will therefore be more open to branding and premium pricing. The decrease in demand will give the domestic production a chance to reduce the deficit and by the end of 2025 completely eliminate it. The Mexican milk market can now be self-sustaining in the white milk segment and the import of milk will be reduced to zero. The increased disposable income will result in a higher general consumption, in line with the trends, and with the decreasing import will they together contribute to an increasing GDP.

This world has a decreased milk packaging market as a result of a 36.3 per cent reduction of the milk demand. Furthermore, this world is self-sustaining as the milk deficit have been eliminated and the customers have a higher purchasing power and are therefore able to buy more premium priced products.

World 4: A small self-sustaining and price sensitive market

Decreasing milk demand and a decreasing purchasing power

In this world, the trend of a decreasing milk demand will continue throughout all ten years. This means that in the end of 2025 the milk demand have decreased with 36.3 per cent. This world starts out with a milk deficit of 30 per cent. This milk deficit will decrease as the milk demand is decreasing and at the end of 2025 the deficit will have been eliminated. The elimination of the milk deficit will result in a self-sustaining white milk market. Furthermore, the milk imports will decrease since the milk demand is being reduced, this will contribute positively to the GDP, even though milk import is a small part of what affects GDP. The disposable income will also decrease, giving the end-customers a lower purchasing power. Since Mexicans have big expenditures on food and beverages the decrease in disposable income will have a noticeable effect on their economic resources used for both food and beverages. This will results in more price sensitive end-customer.

Both the milk demand and the purchasing power is decreasing, leading to a smaller milk packaging market with more price sensitive end-customers. As a consequence the dairies in Mexico wants to cut costs. Meaning that companies with the capability of reducing their prices will be able to be competitive on this market.

The remaining forces

The other forces, those not mentioned, still affect the competition in the milk market. Therefore these forces are good to have in mind since they create the prerequisites of the development. These forces follow their trend independent of the world, therefore providing the same outcome in all the worlds.

The new agreement, "Pacto por México" is an agreement that will increase the collaboration between the political parties. This will not affect the competition for the milk packaging sector, although the collaboration means that the country's political power will strive towards fulfilling this agreement. This means that the forces transparency, accountability, battle against corruption, positive development of the economic welfare and strengthen social right and judiciary will be improved.

The open trade system that Mexico has is expected to continue. The impact from this is that there is easier for foreign companies to enter the market. This means that it is easier to conduct business here as a foreign company. At the same time the competition will increase.

The specialised products segment is increasing in Mexico, indicating that this kind of products will get more space in this market. Although, this will not affect the milk packaging industry since it is nothing affecting the packaging solutions.

The Mexican consumers are loyal; this means that they will continue to buy products that they appreciate. A way for packaging companies to exploit this force is to brand themselves to a greater extent. If the Mexican consumer enjoys a package, and can relate to it, this can add sales to the company that owns the product.

Speed and convenience is something that the Mexican consumers demand. This means that the packaging solutions that are presented should be aligned with these prerequisites. The packages shall be convenient and allow for efficiency that does not cause energy consuming time waste. For example easy opening solutions would be appreciated as well as on the go packages.

There is an increased demand for organic food in Mexico meaning that these kinds of products will become more popular. This is something that can be mirrored on milk products, indicating that the dairies might increase the organic milk segment in the long term.

The biggest milk segment is fluid milk, and this consumption pattern is expected to continue. This means that packages for fluids will be the biggest market regarding milk-packaging solutions in Mexico.

The Mexican consumers appreciate price promotions. This means that marketing drives where price is the main selling point offers potential to sell more. This is something that is relevant for the retailer rather than the milk packaging companies.

The technology trends, regarding differentiation and digitalisation, are expected to continue. This means that packaging solutions that integrate these forces can attract more customers. In Mexico there are no indications that this will have any huge gain in the short term.

The trend that many technological innovations are to increase convenience within the dairy market is expected to continue as long as the customers demand speed and convenience. And as Mexico is highly urbanised, the customers demand speed and convenience. This means that the convenience force will continue to be demanded. Technology that simplifies the usage of a product is therefore something that will be needed in order to compete in Mexico.

Shelf-life has been mentioned earlier. And as a part of product development different solutions for increased shelf life is probable to be innovated. There are existing solutions that allows for good shelf-life, which gives this low impact.

The sustainability trend will continue, which will offer more sustainable technological solutions. It is important to continue develop this as more consumers become more aware of the sustainability problems.

The traceability trend is a trend that might not have a big impact in Mexico. Although, it might have impact if it is used to secure that the bought product is organic. This can for example be done by the help of QR-codes or similar.

Regarding possible threat from value chain competitors there are no indications that either Arla or Stora Enso are interested to integrate upwards or downwards. Arla want to develop their core business, gaining more customers and creating a more effective organisation where costs are rationalised. This indicates that Arla is focused on their current core organisations and does not have any ideas of expanding within the value chain. Stora Enso has divisions that are operating within the packaging segment. Although, none of these compete with the dairy packaging market, Stora Enso is rather a supplier of material towards this market. Since they want to develop their customers organisations it is reasonable to believe that Stora Enso does not want to forward integrate in the value chain within the dairy packaging market. Furthermore, Stora Enso sells assets that are not aligned with the core business, indicating that Stora Enso will continue with the business that is conducted now.

Implications

World 1: A growing market, attractive for milk packaging companies

Increased milk demand and an increased purchasing power

This is the world with the biggest potential since this world have the biggest milk market, which makes all companies interested in the market. Elopak, who has pronounced the Americas as a focus area, see the high urbanisation in Mexico as an opportunity for them to gain new customers. In urban areas the turnover rate on products is faster, which benefits the non-aseptic packages Elopak could provide. SIG will compete by offering price competitive solutions together with their well-reputed customer-services. Another advantage SIG has, over the other companies, is the broader product portfolio giving customers more choices in regards to type and size of the packages. Greatview see growth in the Mexican market as an opportunity to increase their presence internationally. Operating with a high net profit margin Greatview could offer competitive prices. Greatview will especially attack and compete with SIG in this market. This is a consequence of their new blank-fed product, which is compatible with machines from SIG. Moreover, Greatview will also try to gain new customers within their core business, the roll-fed segment. Krones will compete in this world by promoting PET-bottles as the best choice for end-customers. Since Krones is the only company of the studied combatants, that offer plastic packaging solutions, the battle will be won if the end-customers preference strives towards PET-bottles. Towards dairies Krones will highlight the high flexibility plastic solutions offer. For example printing techniques that could be of good use in campaigns, e.g. price promotions.

World 2: A growing market with price sensitive end-customers
Increased milk demand and a decreased purchasing power

In this world the market size is increasing, indicating that there can become an increased competition. Furthermore, the end-customers have less money for purchases, assumable making them more price sensitive. This will make the dairies adjust their prices in order for them to sell their products, and as a consequence they are looking for price competitive packaging suppliers. SIG's mission is to add value to their customers through price competitive packaging solutions, which indicates a competitive edge that is useful for this world's milk market. SIG will therefore consider lowering their prices in order to create new customer relationship. Krones has a low profit margin, below three per cent, and they will therefore not have the motivation to be flexible when it comes to prices. Therefore, Krones does not increase their presence in the Mexican market. Since America is part of Elopak's focus area they would want to join this market. The high urbanisation reduces their negative aspect of a lower shelf-life compared with aseptic packages. As a result Elopak will increase their revenues from the Mexican market. Greatview also values price competition and operates with a higher profit margin than their competitors, making them able to lower their prices. Therefore, Greatview will have a great advantage towards their competitors in this world.

World 3: A small self-sustaining market with benefit advantages
Decreasing milk demand and an increasing purchasing power

In this world the demand is decreasing, resulting in a smaller milk market. The purchasing power of the end-customers is increasing, leading towards a customer base, which is willing to pay more. This will benefit the companies that can add more value to their customers. The smaller market will make the bigger companies less interested and therefore neither Krones nor SIG wants to increase their presence in Mexico and instead continue to focus on their existing customers. Greatview and Elopak companies have asymmetric motivation compared to Krones and SIG, for them new customer make a more noticeable increase in their revenues. Therefore both Greatview and Elopak will be more aggressive in this market. Greatview's mission includes quality; indicating that Greatview can offer qualitative benefits that could be useful for dairies, in order for attract end-customers. Greatview will therefore have a competitive edge in this world and will be able to pinch market shares from the other companies. Elopak's focus on the American market meaning that they will focus on Mexico and marketing the benefits with their non-aseptic solutions, which differs them from Greatview.

World 4: A small self-sustaining and price sensitive market
Decreasing milk demand and a decreasing purchasing power

This world has the same setup as the second world, in aspects of price sensitive end-customers. Therefore this world will show similar results. The difference is that in this world, the market is decreasing and there will not be any new customers. The market will therefore consist of the already existing customers and existing relationships will be valuable. This is beneficial for Krones and SIG who prioritise their relationship towards customer. However, Krones and SIG will not have any incitements to reach for a higher market share with the consequence that Elopak and Greatview can remain their customers.

Selection of Leading Indicators and Signposts

A signpost for the worlds with an increased purchasing power is the amount of students. It is expected that the purchasing power will come from people with higher salaries due to better educations. If the consumption pattern will move towards buying more products in the premium segment than this will reflect on the two worlds with increased purchasing power. In the first world the general health of Mexicans should be regarded as a signpost. Mexicans are the most obese people in the world forcing them to be health aware. If the view on milk and enriched milk products are considered and promoted to be healthy products it will indicate that the first world could be the potential future. Clues pointing towards world three and four can be revealed through examining the milk import. Since the milk demand will go down in these worlds the import will decrease since Mexico can supply a higher share of their own milk market.

To distinguish world two from world one, observations regarding the consumption patterns should be done. The overall consumption will, in world two, go down due to the decreased purchasing power. So if the share of total expenditures will remain, or even increase, on foods and non-alcoholic beverages world one is more likely to play out than world two.

Since world four is world one’s opposite, the same signpost can be looked at and if they move in the opposite direction world four is the most likely world to play out.

Appendix I – Scenario Analysis, Turkey

In addition to the data presented in this section, the data regarding technology trends and possible value chain competitors from Appendix B and C are also relevant for this scenario.

Politics in Turkey

The 10 august in 2014 Turkey held their most recent presidential election where the 12^{th} president, President Recep Tayyip Erdoğan, was elected (Yildiz 2014). President Erdoğan belongs to the Justice and Development Party (AKP) and is the predecessor of President Abdullah Gül, whom also was a representative from AKP (Presidency of the Republic of Turkey 2015).

Erdoğan and AKP's priority is to change the current parliamentary system to a presidential system (Focus Economics 2015). The opposition is afraid this could be the end of the parliamentary democracy (Tisdall 2015). Erdoğan's economic plan for the future is based on lowering the interest. Furthermore Erdoğan wants to centralise the decision-making in terms of political power (Ucer 2014).

Turkey has adopted EU's external trade standards resulting to the same tariff and tax duties as EU, for most parts (Australian Trade Commission 2015). Despite collaboration with EU Turkey continue to keep some trade barriers, such as tariffs and non-tariffs, to control and restrict imports (Australian Trade Commission 2015)

The Milk Program

In 2012 a project to increase the milk consumption was tested (Gürgen 2012). This project was meant to distribute milk to around 7.2 million Turkish students (Gürgen 2012). On the first day of this project more than 1,000 students went to the hospital with complaints about abdomen pains (Güneş 2012). Ali Koyuncu, the head of the Turkish Milk Producers Union, concluded that the problem was that the students' metabolism was not used to milk (Güneş 2012). The Education Ministry choose to stop the milk distribution after this, which was only a temporary halt of the program (Hürriyet Daily News 2012). The program was successfully carried out despise the setbacks and criticism (Tarihi 2013). This program has been on going since the start in 2012 (Pinar 2015a; AK parti 2015).

To support animal breeders the government supported the industry with over 15 billion liras in the last 12 years (Hürriyet Daily News 2015). This has led to an increase of milk production from 8.4 million tonnes in 2004 to 18.5 million tonnes in 2014 (Hürriyet Daily News 2015). In addition to the support for animal breeders, the government has in its development plan, adopted in 2013, set a target to increase the scale of businesses in order to improve the production (Çağlar & Acar 2013). Only 0.7 per cent of the milk farms in Turkey have a herd size over 50 cows and more than 80 per cent of the milk farms has ten cows or less (Rabobank International 2014). Further key points in the plan are food safety, rise in foreign trade and incentives system (Çağlar & Acar 2013).

The government of Turkey wants to support the domestic milk production and have therefore applied strict measures such as an increase in tariffs on imported dairy products (Export 2015). The tariffs have been increased more than threefold, from 45 per cent to 150 per cent (Export 2015).

Economy

Turkey have had an increased growth but lost some of its growth last year (Focus Economics 2015). In 2013 the GDP growth was 4.2 per cent but has changed to a growth of 2.9 per cent in 2014 (Focus Economics 2015). The economic growth is displayed in Table I.1 below. The economic growth is decreasing but Ucer (2014) say that the economy, at the same time, is resilient. The course of Turkey's economy now seems to be unstable leading to ideas that the Turkish market is the most vulnerable, of the emerging markets, to global change (Ucer 2014). The disposable income has increased from 2011 to 2013. In 2014 it had a dip but for 2015 it is estimated to have a positive growth (Euromonitor International 2015a). Table I.1 displays the development of the economic growth and annual disposable income.

Table I.1. Economic growth for Turkey from 2009 to 2015 (Focus Economics 2015; The Economist 2015; Euromonitor International 2015a). *The values for 2015 are estimated.

	2009	2010	2011	2012	2013	2014	2015*
Economic growth (GDP annual variation in per cent)	-4.8	9.2	8.8	2.1	4.2	2.9	3.3
Annual disposable income (million USD)	-	-	570,140	574,037	605,209	570,208	586,381

The export and import in Turkey have fluctuated between 2009 and 2013 (Focus Economics 2015). Although, the imports have always, during this period, been greater than the exports (Focus Economics 2015). Ucer (2014) states that the economic growth of Turkey is dependent on the flow of assets, where an increased inflow of funds would lead to a positive economic growth. Turkey had a decrease in exports and imports during 2008 and 2009 as a result of the global finance crisis (Economy Watch 2015; Focus Economics 2015). The years after the crisis Turkey's export and import have increased (Economy Watch 2015). The import and export as well as the annual variation are displayed in Table I.2.

Table I.2. Import and export variation for Turkey between 2009 and 2013 (Focus Economics 2015).

	2009	2010	2011	2012	2013
Import (billion dollar)	134.4	177.3	232.7	228.8	243.6
Export (billion dollar)	109.7	121.0	142.4	162.0	161.8
Import (annual variation in per cent)	-30.6	31.8	31.2	-1.7	6.5
Export (annual variation in per cent)	-22.1	10.3	17.7	13.7	-0.1

Dairy market in Turkey

The Turkish milk market consists of 44 per cent UHT milk (Pinar 2015a). They have a low consumption of milk and other dairy, compared to the countries in EU whom have around the double of Turkey's dairy consumption (Newman 2014). After a 10 per cent increase in total dairy consumption, including all milk based products, from 2012 to 2013 the consumption had reached 223 kg per capita on average (Pinar 2015b).

The total milk production in Turkey has increased the last decade; see Table I.3 (Pinar 2015b). In 2011 the milk production was 13.8 million tonnes while in 2012 the milk production had increased to 16.0 million tonnes (Food And Agriculture Organization Of The United Nations 2014). The reason for the increase in 2012 was due to an increase in the dairy cattle population together with improved extraction of milk (Scott & Allwood 2013). The latest reason for the increase, in 2014, could be connected with the increased demand and availability of fresh milk (Euromonitor International 2015b). According to Newman (2014) Turkey's goal is to double the dairy production until 2023. Since the milk production is concentrated to the western part of Turkey the government has offered incentives to start businesses in the eastern part to increase the milk production. The eastern part is also more suited for forage production and there is more land availability here (Rabobank International 2014). This would lead to increased dairy farms at the same time as forage, that is better than concentrated feed for the milk cattle, can be produced in the country (Rabobank International 2014). Usage of forage from the eastern part could increase the average yield from 2,970 kg/cow in 2013 to 4,000 kg/cow (Rabobank International 2014).

Table I.3. Milk production in Turkey from 2008 to 2012 (Food And Agriculture Organization Of The United Nations 2014).

	2008	2009	2010	2011	2012
Milk production (million tonnes)	11.3	11.6	12.4	13.8	16.0
Per cent milk production increase	-0.2	2.9	7.2	11.1	15.8

The Turkish Customers

Population

In July 2014 Turkey's population was estimated to 75,837,020 people, a number that is forecasted to increase. Year 2025, the population is forecasted to be 83,712,867 people (Worldometers 2015b). The life expectancy in Turkey is 73.29 years (Central Intelligence Agency 2015d). Birth and death rate per 1,000 corresponds to 16.86 births and 6.12 deaths. The population pyramid for Turkey, in 2025, is seen in Figure I.1. Almost three quarters of Turkey's population lives in urban areas (Worldometers 2015b). Turkey will follow the mega trend regarding urbanisation and the prospect is an increased share of the population will live in urban areas in the future (Frost & Sullivan 2014; United Nations 2014).

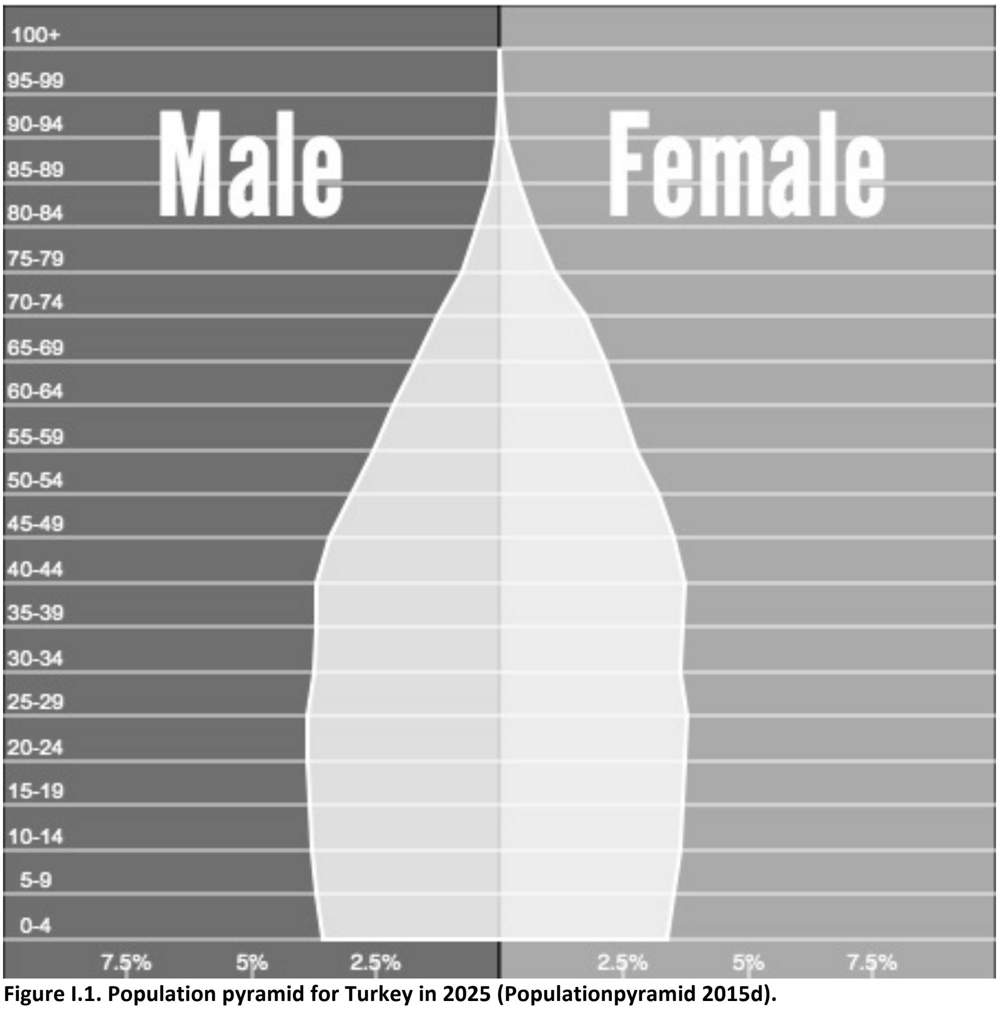


Figure I.1. Population pyramid for Turkey in 2025 (Populationpyramid 2015d).

The characteristics of the Turkish customers

Generally, the Turkish average customer is a spender rather than a saver. Of the total 10,200 USD GDP per capita the consumers' expenditures were 8,000 USD per capita in 2011 (Creative Culture 2013). The increasing adoption of credit cards by the citizens benefits the retail sector (Creative Culture 2013).

That quality matters for the Turkish customer reflects in their appreciation for certifications on products as they see it as a guarantee for quality (Banco Santander 2015c). Turks have good knowledge about different brands, both domestic and foreign brands, and the origin is of little matter when purchasing branded goods. For the customer a brand is more than just the trademark. It represents quality and offers after-sales services and warranty on their products (HKTDC 2011). For non-branded products the country of origin is of greater importance making customers deselect for example, products with Chinese origin (HKTDC 2011).

Moreover, due to big households Turks prefer to buy economy- or family packed products (HKTDC 2011). More than 80 per cent of the consumers already have a plan for their purchase entering the store but 87.7 per cent spontaneously buy something they had no intention to do (Banco Santander 2015c).

The national view of milk

Despite the fact that Turkey is the world's 9th largest milk producer, the Turks are not a milk drinking population. The average milk consumption is 25 litres per year per capita, only one third of the average milk consumption in the European Union (Gürgen 2012; Hürriyet Daily News 2013). This means that milk is the fourth most consumed drink in Turkey (Hürriyet Daily News 2013). The Turks are especially fond of full-fat milk (Gürgen 2012). More preferable drinks are water, tea and carbonated drinks (Hürriyet Daily News 2013). Concerning food, domestic products are unanimously approved by the population (Banco Santander 2015c).

Scenario Analysis According to Schwartz

Identify Focal Issue or Decision

What does the competitive situation, in Turkey, within the milk packaging industry look like in year 2025.

Key Forces in the Local Environment

From the empirical gathering five areas of key forces has been identified. The five key forces for the scenario analysis are politics, economics, customers, technology and threat from possible value chain competitors.

Driving Forces

From the gathered data the identified driving forces and trends are presented in Table I.4.

Table I.4. Driving forces for Turkey (identified by the authors.)

Politics	Economics	Customers	Technology	Value Chain Competitors
• Change in political system • Support of increased milk production • Protection of domestic milk production	• Fluctuating GDP growth • Expected increased disposable income • Dairy production • 44 per cent UHT milk	• Increased population • Slowly increasing urbanisation • Quality conscious • Appreciate certifications • Scepticism towards unbranded products • Brand awareness • Spenders • Spontaneous buyers • Milk consumption • Approve domestic products • Demand family packs	• Differentiation • Digitalisation • Convenience • Shelf-life • Sustainability • Traceability	• Arla Foods AB • Stora Enso

Importance and Uncertainty Ranking

Aligned with Schwartz theory, driving forces and trends have been ranked by uncertainty and impact. The ranking and the motivations are presented in Figure I.2.

Forces	Uncertainty	Impact	Motivation
Politics			
Change in political system	3	2	The opposition has strong opinions against it. As long as the ruling party has the same agenda it does not matter how the decisions are made
Lowering interest rate	3	3	Other things than just political decsisions affects the interest rate. If it becomes lower it might become an incentitive to invest.
Support for increased milk production	1	4	Efforts has already started and increased production would increase the potential sales for packaging companies
Protection of domestic milk production	1	4	There are already high tariffs and with efforts to support the milk production this would remain. The support means it is important for companies to be active in the Turkish market
Economy			
Fluctuating GDP growth	5	2	Turkey is identified as an emerging market therefore this is given a high uncertainty. The GDP does not correlate directly with the competition
Dairy production	3	5	High set goals, if reach they will have huge impact due to 100 per cent bigger market.
Expected increased disposable income	3	2	Has seen dropped earlier and therefore it is given a middle uncertainty. Turks are already big spenders so the extra money are not likely to go on essential products in the first place.
44 per cent UHT milk	2	2	This is more stated fact but it might change over time. As long as the milk is packaged it will have low impact.
Consumers			
Increased population	1	3	The trend of increasing population is inevitable. More people leads to a higher demand.
Slowly increasing urbanisation	2	2	Turkey has already high urbanisation but it is not likely it will turn the other way around.
Spenders	3	2	Saving benefits might affect this force. Food are likely to be the first thing bought and if they spend extra it would not affect in any big way.
Quality conscious	2	1	Their conciousness towards quality is not likely to disappear. All companies is believd to have quality products.
Appreciate certifications	2	3	Turks has already developed this preference and since it stands for good quality they are likely to continue appreciate it. This is an area where companies can distinguish themselves from the other.

Sceptisism towards unbranded products	3	2	Depending on the quality unbranded product can experience a upswing. This will however not affect the competition.
Brand awareness	1	2	There is no indicator that the Turks will stop being brand aware. Brand awareness usually do not impact the milk market.
Demand family packs	2	2	As long as the family will continue to be big the demand will be there but all companies has the possibilty to supply the demand therefore low impact.
Spontaneous buyers	1	2	A habit that is difficult to get rid of. Milk is not likely to be the first product for spontaneous buying.
Milk consumption	4	3	Since it very low and their are effort trying to increasing it the uncertainty if it remains on the same lever is uncertain.
Approve domestic products	1	2	Change here would mean a reduced belief in themselves. Since this already are the case it will not affect the competition.
Technology			
Differentiation	2	5	Technology is something that companies constantly needs to work with in order to be competitive. Differentiation and offer something different will give competive edge and affect the competition especially since Turks are spontaneous buyers.
Digitalisation	2	3	Technology is something that companies constantly needs to work with in order to be competitive. The demand of digitally products are uncertain therefore it is given a middle impact.
Convenience	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The offering today are satisfying enough so new solutions are not likely to have any big impact.
Shelf-life	3	1	Technology is something that companies constantly needs to work with in order to be competitive. Milk has already a long shelf-life so the impact will be low.
Sustainability	2	3	Technology is something that companies constantly needs to work with in order to be competitive. As times goes sustainability will be a bigger issue and therefore some impact.
Traceability	2	2	Technology is something that companies constantly needs to work with in order to be competitive. The impact is set low since this is something customer are not likely to pay for in the near future.

Figure I.2. The authors' uncertainty and impact ranking for Turkey.

Selecting Scenario Logics

The interrelation between the forces and trends are presented in Figure I.4. From the ranking, milk production and milk consumption were chosen as the two forces to build the scenario logics around. Figure I.3 shows how the different worlds can turn out. Either the milk production increases and reaches 32 million tonnes annually or it remains at the same levels as today. The other pillar, the consumption, follows the same logic. Either it will increase, and approach the average level of milk consumption per capita in EU. Or the average milk consumption per capita will see a slight decrease.

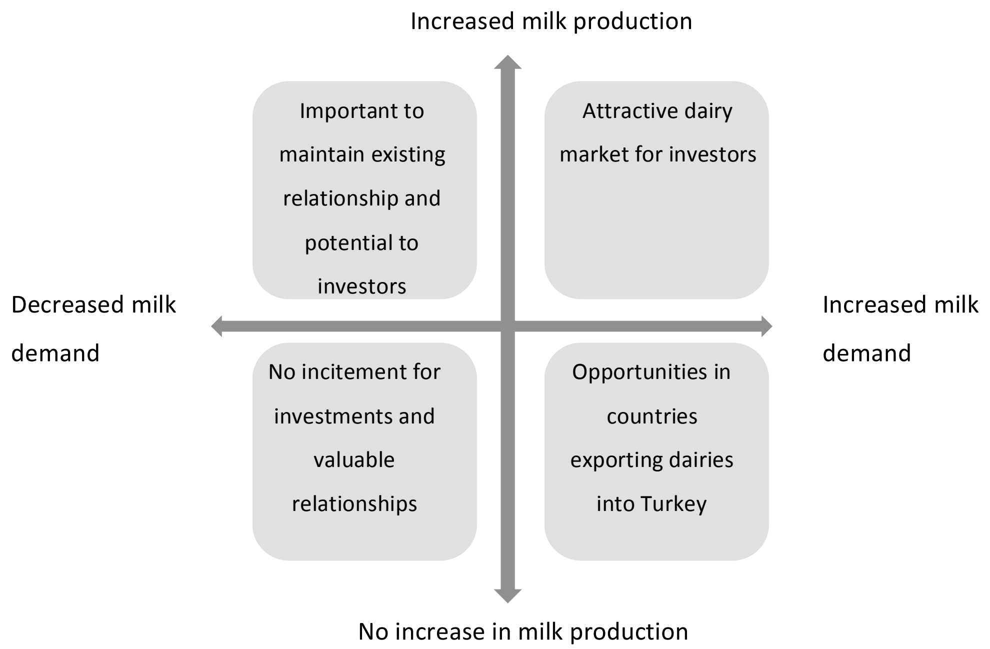
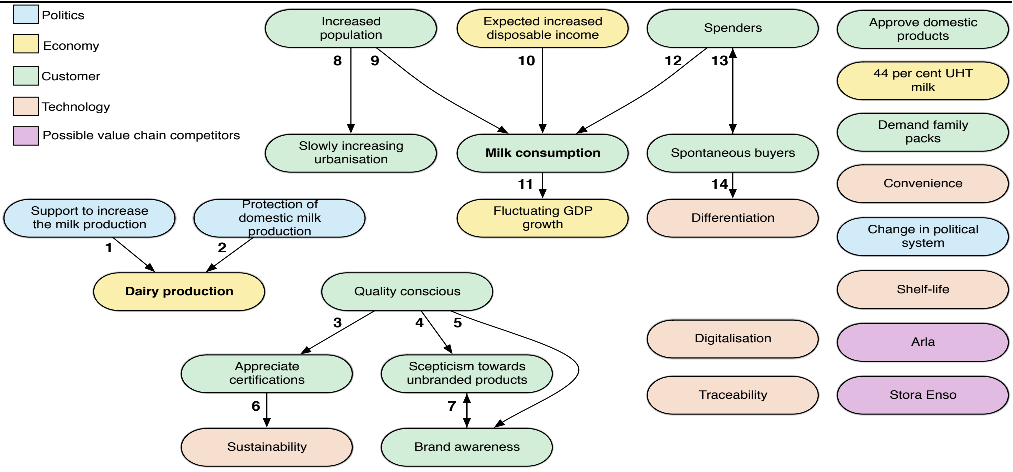


Figure I.3. The constructed scenarios.

Fleshing Out the Scenarios

In order for the authors to have internally consistent scenarios the interrelations between the driving forces are presented in Figure I.4.



Arrow	Motivation
1	Milk becomes dairy products when processed.
2	This gives incetitives for domestic producers.
3	Certifications is seen as quality.
4	Unbranded products does not stand for quality.
5	Branded products is seen as good quality.
6	Sustainability solutions can give certifications.
7	The sceptisism force the Turks to be aware of brands. More awareness increases the sceptisism.
8	Increased population will also give an increased number of people in the cities.
9	More people will consume milk.
10	People will have more money to buy milk.
11	Consumption affects the GDP.
12	Price does not matter since Turks spends their money.
13	Spontaneous shopping means that more money than expected are spent. The Turks has not any urge to save the money therefore can they buy thing spontaneously if they have the money.
14	If a products diferentiate itself from other products spontaneous buyers are more likely to see the product.

Figure I.4. Interrelations between the driving forces in Turkey.

World 1 – Attractive dairy market for investors

Increased milk production and increased milk consumption

The governmental support to increase the milk production has been successful. This means that the farms average herd size has increased and the businesses have scaled up, giving the production economies of scale. More willingness to cultivate the eastern part of country has given milk-farmers access to better forage, making the yield from each cow to increase. The high tariffs of foreign dairy products makes that foreign companies cannot compete with dumping prices, which keep the prices high, which benefits domestic milk farmers. Moreover, the Turkish customers are interested in the origin of food products and they appreciate domestic products. Therefore, Turkish milk farmers and domestic milk brands have potential to make profit of their sales. The potential for increased milk production makes it an interesting market for investors, which can help to increase the milk production even more. From the development of these forces the total domestic milk production has increased and is according to plan. Meaning the domestic milk production corresponds to 32 million tonnes per year.

Regarding the milk consumption, the school milk program has had a positive effect. School children have taken their consumer habits home and have started to consume even more milk than before. An increased disposable income leads to that Turks feels they can spend more on milk. This had lead to increased milk consumption and the Turkish milk market increases more than if only the incremental demand from the growing population was taken into account. Since processed and packaged milk is regarded as more safe than loose milk together with the government's plan to highlight food safety, the consumption patterns will turn to packaged milk, which will lead to an slight increase of packaged milk popularity. Furthermore, the family packs will continue to dominate the market since the school children affect their families to buy more milk.

The outcome of this world is that the dairy market in Turkey increases, on average by 1.6 million tonnes, every year the next coming ten years, corresponding a 10 per cent increase the first year. For the milk packaging solution industry the increased milk production means that there is great potential to earn money. Since milk needs to be processed and packaged, incitements, for milk packaging companies, to make a move in order to try to seize and lock in customers will be created.

World 2 – Important to maintain existing relationship and potential to invest

Increased milk production and a decrease in milk consumption per capita

The government's willingness to increase the consumption does not have any affect on the Turkish population, who still prefer other beverages before milk. As a consequence of not seeing any effect of the school milk program the government has stopped providing school with free milk. This sets the milk consumption in a negative spiral because, that no school children will consume milk in school and take their milk-drinking habits home to their families. The share of the population who still is in school will not be introduced, by the school, to milk as a beverage alternative and will not see it as a natural beverage alternative in 2025. Also, as the time pass, the metabolism will also be affected, meaning the milk tolerance will decrease. Therefore efforts to increase milk consumption will share the same drawback as the school milk program did in its early stages before the students got used to consume milk.

Despite the setback in milk consumption the government still supports the milk production since it create job openings. The pattern regarding increased milk production follows the same as in the previous world. The Turks enjoy the fact that the origin of their milk is Turkish. However the increased milk production makes it necessary with export, since the milk production is higher than the milk demand.

Otherwise, the government support production where there is no demand. This means that in order to make use of all the produced milk, good export relations between Turkey and other countries needs to be in place. This will have impact on the GDP because of the increase in export. However, it is hard to draw any conclusion by looking at GDP since it takes much more into account than just milk production.

Because of the increased population the dairy market will see a slight increase. The results of this is that the volume of imported milk will decrease and in order to sell packages in the Turkish market, companies needs to be present in Turkey. Existing relationships are therefore an advantage in this world.

World 3 – Opportunities in countries exporting dairies into Turkey

No increase in milk production and increase milk consumption per capita

The effort to increase production has not been successful. The turmoil at the border of the eastern part of the country leads to the consequence that there is no one who is willing to start up business there. Hence, there will not be more forage available. Therefore, the yield from every cow remains low because they are fed with concentrate feed instead of forage and also there has not been any increase in number of milk cattle.

Early incentives such as the school milk program have had great impact on the milk consumption. Providing milk in school promotes milk as a healthy beverage alternative. Since Turkey has a young population, with many youngsters in school, the habits they gain from school will affect their way of living. This will make the Turks consume more milk and start to reach the level of an average EU citizen in consumption. Even though, the demand for milk makes the milk production insufficient and imported products are needed in order to supply the demand. An increased disposable income compensates for the more expensive foreign products. Furthermore, the total milk consumption will increase due to an increasing population in the country.

To support the insufficient milk production, Turkey becomes a net importer of milk. For packaging solution competitors this means there is no incentive to make a move towards the Turkish market to grab new opportunities. Instead it is important to look where milk import streams into Turkey comes from and grab market shares in those countries. Still there is possibility to compete for existing customers.

World 4 – No incitement for investments and valuable relationships

No increase in milk production and decreased milk consumption per capita

The last world is more of an as is state regarding the market size but not regarding existing trends. The government's effort to increase both milk production and milk consumption has not had any affect on the Turkish population. Due to the increasing population a small change in the total consumption can be seen, but it will not have any substantially impact on any other forces or the competition.

For the competition this means there is no incitements for new investments. Moreover the demand for packaging solutions can be expected to remain on the same level as 2015 and therefore existing relations with customer becomes a valuable resource to compete in Turkey.

The impact of technology
None of the six technology forces are central in the Turkish scenario. Even though, a breakthrough in technology can have major impact on the industry since it have the possibility to lock customers if used right. It is important to bare in mind that most technologies easily can be copied or a similar substitute will pop-up but the importance of being first can give companies early advantage towards other.

Specific for Turkey differentiation has potential to have impact on the consumer behaviour. Since the Turks are spenders and also spontaneous buyers a product that stands out from the crowd has potential to penetrate the market.

The remaining forces
The political force that has not been mentioned in this scenario is hard to correlate with the scenario logics. A change in the political system will rather change how decisions will be made and as long as the governing party has the same political agenda, it would not affect the world in any direction.

The urbanisation is already high in Turkey and the increase with a few percentage points will not give any big changes in customer preferences as can be different in cities than rural areas. Therefore, this force will not give any big opportunities if any company offer a more city-suited package. Hence, the competition for packaging solutions will not see any substantially affect.

The brand awareness, quality consciousness and the appreciation for certifications are likely to continue to be strong customer preferences.

Regarding possible threat from value chain competitors there are no indications that either Arla or Stora Enso are interested to integrate upwards or downwards. Arla want to develop their core business, gaining more customers and creating a more effective organisation where costs are rationalised. This indicates that Arla is focused on their current core organisations and does not have any ideas of expanding within the value chain. Stora Enso has divisions that are operating within the packaging segment. Although, none of these compete with the dairy packaging market, Stora Enso is rather a supplier of material towards this market. Since they want to develop their customers organisations it is reasonable to believe that Stora Enso does not want to forward integrate in the value chain within the dairy packaging market. Furthermore, Stora Enso sells assets that are not aligned with the core business, indicating that Stora Enso will continue with the business that is conducted now.

Implications

World 1: Attractive dairy market for investors

Increased production and increased milk consumption

The increased milk market gives incitements for all the companies to compete. Elopak is the company who are the most likely to set up the strongest offensive since Europe is their prior market. Elopak has a good chance to be successful since their portfolio offer products that fulfils the Turkish consumers demands, e.g. certifications and family packs. Also they are active in both the aseptic and non-aseptic milk segment and can supply both types of customers. Furthermore, both SIG and Krones will be strong competitors. SIG has the same advantages as Elopak. The differences lays within the focus areas where Elopak has Europe and SIG's has not any stated any geographical focus. Krones has not the same possibility to meet the customer preferences regarding certifications as SIG and Elopak, but Krones has another triumph card. The increase in production leads to an expansion of dairies. In the early expansion phase, Krones will try to lock in customers in a stage when their competitors have not been involved in the expansion process yet. This is possible because of their solutions for building new factories where they can lock in customers. Another of Krones's advantages, the plastic material, might also become their biggest disadvantage in Turkey. Since the school milk program provides small 200 millilitres packages, which is a hard segment for plastic to compete within, the Turks becomes used to milk packed in paper packages. Regarding Greatview, they have higher barriers to enter the Turkish market than the other three companies. The scepticism towards Chinese products and the fact that Greatview does not sell filling machines outside of China makes it hard for them to lock customers in and to provide paperboard for filling machines from other companies. Therefore, Greatview is not likely to make a move towards the Turkish market.

World 2: Important to maintain existing relationship and potential to invest

Increased production but a decrease in milk consumption

Even though the milk consumption will not increase the increased milk production will enable business opportunities for packaging solution companies, since the excess milk is exported. The battle that will take place will be similar to what it was in the previous world. The differences will be that the Turkish end-customers will not be taken into account. Depending on which country the export will go to, other customer preferences will be valuable. This gives a small opportunity for Greatview to provide paperboard to dairies if they can compete with a lower price since the dairies and consumers on the export market might not have the same scepticism towards Chinese products as the Turkish end-customers and the dairies wants to increase their profit margin with lowering costs.

World 3 and 4: The two remaining worlds

No increase in milk production but an increase in milk consumption & Decrease in both milk production and milk consumption

In the two remaining worlds the differences from today's business is not big. Since the production stands still there is no incitement for the companies to invest. Greatview, who has their interest in other markets will not conduct any effort in any of these two worlds partly because of the customer preferences, i.e. the demand for family packs and the scepticism towards Chinese products. To stay in the market it is important to have good relationships with existing customers. Krones and SIG will focus on maintaining their current customer. Since these are the companies with the most established customer relationship process they will succeed to maintain many of their customers. Elopak will put great effort in gaining new customers and trying to take customers from Krones and SIG. And in order to outcompete them, Elopak will promote their work with certifications and different packaging solutions in order to highlight that Elopak's products suits the Turks preferences in a good way. Elopak's products suits the Turks preferences since they can supply the biggest packages solutions, compared to the other competitors, this is aligned with the Turks family pack preference. Furthermore Elopak are communicating their certifications and sustainability focus to a greater extent than the other competitors, which the Turkish customers appreciate.

Selection of Leading Indicators and Signposts

There are four early warnings for world one. A force to monitor is the exploration of the eastern part of the country. If the eastern part of the country is exploited is an indicator that this world will turn out. Another early warning is the trade with concentrate feed will decrease because of the increased supply of forage. Also there will be a reduced proportion of companies in the business register since milk farmers merge their farms in order to gain scale benefits. Furthermore, a continuous work with food safety from the government will also be regarded as an important force to monitor in order for world one to become realised.

Signpost in world two is if the dairy export starts to increase. Another indicator can also be found in the schools. If there is much milk leftover in the schools that has to be disposed, the school milk program is a failure. If the school children do not drink milk in school there is no reason to believe that they will drink milk in their home either. And as a consequence the milk demand can be expected to decrease over time.

One major post that will change in the third world is that Turkey will become a net importer, instead of net exporter of milk. This will not change overnight, but a slow decrease of the export is one indicator, and should therefore be monitored. People streams are another important indicator to monitor in the early years in this world.

If the people streams towards the eastern part of Turkey are non-existent the market opportunities that exist in exploiting the land for farming are unused.

Common with the previous world, non-existent people streams to the eastern part should be an indicator to monitor. The government's view of the milk program, if they see the program as a success or a failure, is also interesting to follow. If the effect of the program is unsatisfying, the government are likely to reduce the support or abandon the program, which would support decreased milk consumption in Turkey.

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