Strategic market entry by applying the path dependency approach

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Abstract

Entering a new market is one of the most important strategic decisions a company makes, and being an external player can make it possible to reveal opportunities not apparent to the industry players. The key is to not take industry structures for granted, but to think outside the box when formulating the entering strategy. This study rests on the assumption that there are factors in industries that are more path dependent than others, hence they are rigid and difficult to change. These factors could eventually prevent the industry from evolving even though new technology and processes are available. By first identifying factors strongly governed by path dependency and then delving deeper to understand the reason why they have not changed, this study argue that new business opportunities can evolve. The approach developed in this paper is particularly beneficial when the product or service is not yet developed and the company has many different resources, enabling a more diversified product portfolio, in which opportunities can be prioritized against the company resources. This enables matching a product or service to the industry rather than pushing it out on the market. In this report the path dependency approach is applied on the banana market, which has features governed by path dependency, and the entering company is a subsidiary to an established company and thereby has multiple resources as well as products and services. Since the subsidiary chose to proceed with the strategy formulated by using the path dependency approach the findings from the case study show that the approach can be useful when entering a new market. The report concludes that the concept of path dependency is ambiguous and subjective but could be useful when formulating an entry strategy into a new market. However, further research is needed to evaluate the application of the approach and the path dependency approach should primarily be seen as a complement to existing market entry strategies.

Key-words: Market analysis, market entry strategies, path dependency, resource-based view
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<th>Explanation</th>
</tr>
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<tr>
<td>B2B</td>
<td>Business to business</td>
</tr>
<tr>
<td>C</td>
<td>Celsius</td>
</tr>
<tr>
<td>CSR</td>
<td>Corporate social responsibility</td>
</tr>
<tr>
<td>G</td>
<td>Growing &amp; Exporting</td>
</tr>
<tr>
<td>I</td>
<td>Import &amp; Ripening</td>
</tr>
<tr>
<td>MAS</td>
<td>Multi-agent system</td>
</tr>
<tr>
<td>MMT</td>
<td>Million metric tonnes</td>
</tr>
<tr>
<td>MNC</td>
<td>Multi-national company</td>
</tr>
<tr>
<td>PBGEA</td>
<td>Pilipino Banana Grower &amp; Exporter Association</td>
</tr>
<tr>
<td>QC</td>
<td>Quality Control</td>
</tr>
<tr>
<td>R</td>
<td>Retail</td>
</tr>
<tr>
<td>RBV</td>
<td>Resource-based view</td>
</tr>
<tr>
<td>TCT</td>
<td>Transaction cost theory</td>
</tr>
<tr>
<td>TNC</td>
<td>Transnational company</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollar</td>
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1 Introduction

There are several market entry theories and frameworks presented in previous literature that aims to guide what factors to focus on when analyzing and deciding upon market entry. Porter's five forces, SWOT and PEST analyses are well-known and established frameworks used for mapping and understanding industries, whereas other researchers emphasize different aspects when entering new markets, such as country risk (Cheng, Tsai & Chuang, 2011), physical distance (Kogut & Sungk, 1988), language diversity (Demirbag, Glaister, & Tatoglu, 2007), and the level of control (Canabal & White III, 2008), whereas Niu, Wang, & Dong (2012) emphasize that different resources play different roles when entering markets. These aspects are all important to consider when formulating a market entry strategy. The question is if these approaches are exhaustive or if there are other angles that would be of interest to apply when entering a new market? The gap identified in previous literature within market entry is that limited attention has been paid to how a market entry strategy can be formed by considering path dependent aspects in an industry. This paper claims that some markets are more path dependent than others, which also enables a new perspective on market entry.

Path dependency is an ambiguous concept based on subjective interpretation. There are also concepts discussed by previous authors that overlap and describe the same phenomena but under other disguise. One of them is Danielsson (1983), who introduced the idea of sediment, which is the residue from solutions to old problems that remain in new solutions. Danielsson's line of reasoning corresponds to the discussion in this report of path dependency, that historical decisions and events affect the present and the future path. Another is Peng’s (2008) discussion about informal and formal institutions also governing paths in society and industries. What sparked the interest to investigate path dependency, in the context of a market entry, was the idea that perhaps people that are part of a certain path in an industry eventually become oblivious to possible solutions that lie outside of the path. The condition somewhat reminds about the famous metaphor about the fish that does not understand what water is since it has always been surrounded by it. This leads to the question of whether an external actor can benefit from this and find business opportunities not apparent to players in the industry.

The path dependency approach requires a more profound understanding of the cause of path dependency when formulating the entering strategy. A market that is strongly path dependent is more inert and has an internal reluctance to change compared to a market with a lower degree of path dependency, therefore it has had the same features for a long period of time. This study puts forth an example in a case study of how a market entry strategy can be formulated by analyzing the path dependent features of the banana industry. The entering company in the case study is a subsidiary to a large, established company and thereby has a diverse set of resources combined with a drive to be innovative when looking for new business opportunities and revenue streams. Furthermore, due to its diverse resources the entering company is not limited to one specific product or service, which increases the range of options for where and how they can enter a new market. This makes the path dependency approach attractive since the subsidiary can customize the product or offering after the market's demand as opposed to when the entering strategy is formulated after a certain product or service. Therefore it becomes crucial to find the optimal niche where the company can either target their existing products or services or develop new ones to match the market demand.

The key with the approach is to not take the market structures for granted, but to delve deeper to identify the potential as an external actor with specific characteristics and resources, to change this. Hence, when using the path dependency approach an opportunity evolves to change things that have been static for a long period of time and that existing actors cannot change or have ceased to question. The study aims to investigate how features on the market can be seen as path dependent and also impact the choice of strategy for an entering company with a wide spectrum of resources and see if this can contribute to a new angle within market entry research.
1.1 Purpose

The purpose of this study is to put forth a new perspective when formulating a strategy for market entry in an industry where market elements are governed by path dependency. The reason for why it is of interest to study a market entry from a path dependency perspective is the possibility to create new and innovative revenue streams by understanding what factors and why they contribute to significant path dependency in the market. If there are legitimate reasons for why aspects are path dependent, it will be difficult to change the industry, if not – there is potential for change given that the needed resources are available, and thereby new revenue streams are possible. The reason for choosing the banana industry is that path dependency is significantly present at different levels of the industry and becomes a delimiting aspect inhibiting future development.

1.2 Research Questions

The purpose will be achieved by answering the following question:

How does a company with a diverse set of resources formulate an entry strategy where path dependency is significant for the market?

To answer the main question, there are three sub-questions posed. The purpose with the first question is to delve deep into the industry to gain an understanding for what the key drivers for path dependency are:

1. What are the key factors to strong path dependency?

Subsequently, the focus will shift towards the entering company and if they with the insights gained about path dependent aspects can target these with their resources:

2. Are new business opportunities possible for a company with a diverse set of resources by targeting the source of path dependency?

As a final point, to elevate the findings to a more general level the last question will answer the relevance of the approach and what use this could have in the future:

3. Why is it useful to understand why different aspects of the industry are strongly path dependent?

1.3 Delimitations

When using a qualitative approach a lot of information is gathered, therefore it is important to be specific when defining the scope of the study (Collis & Hussey, 2009). The research is delimited to study one industry, ideally other industries is to be studied to achieve a more generalizable result. Another delimitation is that it is concerned with the pre-study phase including market assessment and development of an entry strategy based on empirical findings as well as previous theoretical model. An extension would be to investigate the implementation phase to evaluate the model and market entry. There is also a delimitation in what type of actors that are examined. There are additional stakeholders interesting to consider, and a more thorough analysis of logistics companies and box converters can potentially uncover more relevant information. The study has geographical delimitations since it focuses on the largest importing market, which is the European market place, and only Swedish retailers since these are in the same geographical area as the
case study company. The resources studied are delimited to the ones present at the subsidiary. Laws and regulations are not analyzed due to limited knowledge in the area and the given timeframe. The banana industry has drawn a lot attention discussing corporate social responsibility (CSR), which will not be discussed or taken into consideration in this report, more then as an added value. Organic bananas are not included in this paper, since path dependency is assumed to be more present on the market for regular bananas.

It would be of interest to estimate the monetary value of each market entry strategy when prioritizing, but is a delimited aspect partly due to the potential violation of the case study company's competitive advantage in the implementation of the recommended strategy, and partly due to the difficulty for the researchers to estimate the costs, which could contribute to false conclusions. Even though the monetary value is not quantified or explicitly stated in the report, the researchers have been aware of the aspect when reasoning about strategies. Discussion regarding potential revenue streams is presented only in Strategy 3 since it can be estimated from the market value.

### 1.4 Disposition

In Figure 1 the disposition of the report is presented and it will guide the reader through the report by presenting each new chapter with the main topics.

<table>
<thead>
<tr>
<th>Introduction</th>
<th>Method</th>
<th>Market Conditions and Case Study Company</th>
<th>Literature Review</th>
<th>Analysis &amp; Results</th>
<th>Discussion &amp; Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Choice of Methodology</td>
<td>Empirics</td>
<td>Previous Research</td>
<td>Analysis of path dependency</td>
<td>Empirical contribution</td>
</tr>
<tr>
<td>Research Question</td>
<td>Case Study</td>
<td>- Interviews</td>
<td>1. Market entry strategy</td>
<td>Formulation of potential strategies</td>
<td>Scientific contribution</td>
</tr>
<tr>
<td>Delimitations</td>
<td>Justification of choice of methodology</td>
<td>- Secondary data</td>
<td>2. Resource focused literature</td>
<td>Choice of strategy</td>
<td>Discussion</td>
</tr>
<tr>
<td>Disposition</td>
<td>Limitations</td>
<td>Summary &amp; identified problems</td>
<td>3. Path dependency</td>
<td>Gap In literature</td>
<td>Suggested future research and criticism</td>
</tr>
</tbody>
</table>

In the already presented first chapter, the purpose, resource questions as well as delimitations were presented. Secondly the method of the report is described and justified. Thirdly, the Market Condition & Case Study Company is presented. In chapter 4, previous research within the three areas 1) market entry strategy, 2) resource focused literature and 3) path dependency is illuminated in the Literature Review to identify the gap in the literature that the study targets. Thereafter, in the chapter Analysis & Results, the analysis of the market from a path dependency point of view is presented, after which the strategies customized for the case study company are formulated and prioritized. Finally, in the chapter Discussion and Conclusions, the empirical as well as the conceptual contribution of how the findings can be applied to other cases are discussed.
2 Method

2.1 Choice of Methodology

The process of selecting methodology was part of the section “Research design” as seen in Figure 2. The figure presents an overview of how the project was performed. The three different types of activities on the vertical axis, (1) writing, (2) procedure, (3) meetings and deadlines, were performed in parallel and the fields within (1) and (2) were iterative. To formulate a research design optimal for the research problem, an initial understanding of the industry was necessary. On the other hand, some research design was needed before the initial research of secondary data was performed. Hence, the two activities were performed simultaneously to ensure that important aspects were covered. The same goes for the remaining part of the process, where a literature review was necessary to learn from previous research as well as understand where the research finding would contribute to existing body of research, and was complemented during the course of the project. Continuous contact with the supervisor and case study company as well as peer reviewing ensured that the project was progressing in the right direction.
2.2 Case Study

A combination of a descriptive, illustrative and explanatory case study at the expanding subsidiary was used to investigate the research question. Collin & Hussey (2009) describes the process for a case study as five main steps, as seen in Figure 3, which will be used as base when describing the work regarding the case study.

![Figure 3 Main steps in case study](Collins & Hussey, 2009)

2.2.1 Selecting the case

The initial case was selected by the expanding subsidiary to potentially develop a strategy for market entry. The subsidiary had a need for investigating the banana market to since the market looks different compared to other markets the subsidiary operates in. Thereafter the initial case study was developed and expanded by the researchers by adding the path dependency perspective and investigating the internal resources to match the requested external analysis when developing a market entry strategy suited for the subsidiary.

2.2.2 Preliminary investigations

To become familiar with the context, there were initial meetings and interviews performed with the team at the expanding subsidiary. Outcomes of the initial meetings were an overview of their business and what they previously had done in other industries. In addition to this a brief understanding of the banana market and players was made by reading secondary data.

2.2.3 Data collection

The collection of data consisted of primary data through interviews and observations, and secondary data through reading reports and articles to acquire two different viewpoints and further information compared to only using one of them. The secondary data, collected from official and internal documents, such as annual reports and company websites and pictures, contributed to learn about the industry to thereafter develop interview questions and enable the interviewers to ask attendant questions. This in combination with a field diary enabled data triangulation to increase reliability. The field diary was kept to track impressions during interviews, observations at the exhibition and all steps in the working process to enable going back to how activities had been performed. It was used internally between the researchers and contained thoughts and descriptions of events during the day, progress and interesting findings.

When interviewing, primary data was collected through semi-structured questions, since the approach enabled finding new areas that had not been highlighted so far in the research and therefore gave the research new inputs and areas to follow up on. To use an unstructured approach would have been interesting to increase the chance of finding even more useful material not highlighted, but the approach is time consuming and was therefore not applied.

There were three categories of interviewees; (1) employee to a company active in the banana industry, (2) employee at a Swedish retail store or company group for retail stores, and (3) employee at the subsidiary in the case study. The interviewees in category (1) were chosen based on three aspects; (a) key knowledge in the business area, (b) part of supply chain to obtain information from different perspectives, and (c) presence at the international fruit fair, Fruit Logistica, which is one of the largest forums on the fruit market and attracts legitimate companies. During the average 20-minute-long interviews at the fair, one interviewer asked questions and the other took notes and also asked complementary questions. The reason for not using a voice recorder was to create an informal atmosphere and encourage the interviewee to speak more freely. After
each interview the content was shortly discussed, key take-aways were pointed out, additional questions developed and impressions written down. Several interviewees were contacted again to obtain further information. In category (2), four large retail chains in Sweden were selected to be investigated for the case study. Employees in the stores were selected randomly and interviewed for approximately 15 minutes. Thereafter complementary questions were e-mailed to employees at more central position in the company group and an hour long interview was held with one employee at one of the company groups. The aim of the interviews in category (3) was to gain a deeper understanding of the subsidiary in the case study to prioritize and match the market entry strategies. Interviews had a duration of 45 minutes and the interviewees were given the questions in advance. Continuous contact and working at the office occasionally gave additional insight of the subsidiary.

Table 1 summarizes the interviewees and why they were selected. The goal with the interviews was to gain competence, opinions, numerical data and to understand how the business and supply chain works in reality but also to recognize and discuss obstacles and industry drivers from different viewpoints. The interview process was iterative, where new questions that evolved during the study were e-mailed to different interviewees. To decrease the risk of misunderstandings and increase validity chosen interviews were summarized and sent back to the interviewees that were given the chance to correct the material. Table 1 also shows the categorization and abbreviation of the actors in the supply chain, which is segmented into four groups. The segments are growing and exporting (G), importing and ripening (I), retail (R), and trans-national companies (TNC). The main reason is that growing companies are commonly involved in exporting as well, analogously with importing and ripening. There were no interviews with a company merely active in transporting, instead all necessary data was collected from the TNCs that had transporting as part of their business.

### Table 1 Summary of interviews

<table>
<thead>
<tr>
<th>Type of interviewee</th>
<th>Abbreviation</th>
<th>Description &amp; Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>G1</td>
<td>Employee at grower and exporter in Ecuador</td>
<td></td>
</tr>
<tr>
<td>G2</td>
<td>Employee at exporter in Ecuador</td>
<td></td>
</tr>
<tr>
<td>G3</td>
<td>General manager at grower and exporter in Ecuador</td>
<td></td>
</tr>
<tr>
<td>G4</td>
<td>VP sales and marketing at grower and exporter in the Philippines</td>
<td></td>
</tr>
<tr>
<td>G5</td>
<td>Sales manager at grower and exporter in Ecuador</td>
<td></td>
</tr>
<tr>
<td>I1</td>
<td>Responsible for commercial within export, France</td>
<td></td>
</tr>
<tr>
<td>I2</td>
<td>Commercial director, Czech Republic</td>
<td></td>
</tr>
<tr>
<td>I3</td>
<td>Employee at Swedish ripening company</td>
<td></td>
</tr>
<tr>
<td>I4</td>
<td>Employee at importer, Netherlands</td>
<td></td>
</tr>
<tr>
<td>I5</td>
<td>Employee at importer, Russia</td>
<td></td>
</tr>
<tr>
<td>I6</td>
<td>Employee at importer, Slovenia</td>
<td></td>
</tr>
<tr>
<td>I7</td>
<td>Employee at company making technical equipment for ripening</td>
<td></td>
</tr>
<tr>
<td>I8</td>
<td>Employee at importer in Europe</td>
<td></td>
</tr>
<tr>
<td>TNC1</td>
<td>Logistics director</td>
<td></td>
</tr>
<tr>
<td>TNC2</td>
<td>Country manager</td>
<td></td>
</tr>
<tr>
<td>TNC3</td>
<td>Supply Chain manager</td>
<td></td>
</tr>
<tr>
<td>R1</td>
<td>Employee at Swedish retail store</td>
<td></td>
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<tr>
<td>R2</td>
<td>Employee at Swedish retail store</td>
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<tr>
<td>R3</td>
<td>Employee at Swedish retail store</td>
<td></td>
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<tr>
<td>R4</td>
<td>Employee at Swedish retail store</td>
<td></td>
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<tr>
<td>R5</td>
<td>Quality controller for fruit and vegetables at Swedish group company for a retail chain</td>
<td></td>
</tr>
<tr>
<td>R6</td>
<td>Sales Manager for Swedish retail stores</td>
<td></td>
</tr>
<tr>
<td>R7</td>
<td>Logistics &amp; Board member Swedish retail chain</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>Employee at subsidiary in case study</td>
<td></td>
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<tr>
<td>S2</td>
<td>Employee at subsidiary in case study</td>
<td></td>
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<tr>
<td>S3</td>
<td>Employee at subsidiary in case study</td>
<td></td>
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<tr>
<td>S4</td>
<td>Employee at subsidiary in case study</td>
<td></td>
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<tr>
<td>S5</td>
<td>Employee at subsidiary in case study</td>
<td></td>
</tr>
<tr>
<td>S6</td>
<td>Employee at subsidiary in case study</td>
<td></td>
</tr>
</tbody>
</table>
When collecting secondary data official and internal documents were used to understand the industry. Only recently published data, issued latest five years ago, was used regarding statistics. Annual reports, publications from various authorities, pictures and company websites are examples of sources for secondary data.

2.2.4 Data analysis

The data analysis was divided into two areas - industry and subsidiary, whereas the industry was investigated before the internal resources since the subsidiary wanted a wide scope of entry strategies base on more than company resources. Regarding the industry, data have been gathered from primary and secondary sources, as well as the use of a field diary. The data was categorized and data displays were used to summarize the material in matrices and event networks in form of the industry’s supply chain. An issue tree was also developed to categorize the data to get an overview and to analyze it. Excel was a useful tool to structure numerical and qualitative data into tables and diagrams, which were then used for analysis. Regarding the subsidiary, it was easier to summarize and categorize the data since fewer interviews were held and a narrower scope of field was investigated. The data was summarized and categorized based on resource areas to enable analysis.

The study generated large amounts of qualitative data, therefore data reduction was used after the subsidiary had been analyzed to sort and sharpen the data relevant to the market entry strategies. Finally, the industry analysis together with the analysis of the subsidiary can be combined to formulate the market entry strategies.

2.2.5 Writing the report

The report was written simultaneously with the collection of data and interviews and it was therefore an iterative process. This ensured that no steps were left out since the report was continuously updated. Finally, doing a case study is time consuming and it is difficult to decide on the scope of the study before a preliminary investigation is done to obtain initial understanding of the issue. There will always be interactions with society and other systems, historical events and future events affecting the scope and direction of the study. In this research the case study company occasionally added questions regarding the industry, which extended the initial scope.

2.3 Justification of choice of method

Triangulation was used to reduce bias in data sources and methods. The choice of using a case study is justified by the purpose of the study, to understand how the issue affects different players and their behavior. Before the methodology was chosen other potential ways of performing the study was evaluated. These methodologies were rejected for several reasons. We have chosen to describe them here to further justify the choice of methodology.

The use of ethnography (Collis & Hussey, 2009) is a good way to learn about each part and player of the supply chain in the banana industry and thereby identify problems, risks and opportunities. By using this methodology it is possible to be involved and understand the banana industry, yet still use an analytical approach to understand the e.g. employees’ point of view when packaging and transporting the bananas. It would also be a way to increase the data triangulation by gathering data from different sources. Due to limited time and economic constraints this methodology was not used.

Action research, which is similar to a case study (Collis & Hussey, 2009), is in our research useful in the possible stage of implementation. By identifying the business opportunity action research is a way to drive change. However, the study was delimited to a pre-study where no implementation was performed, hence action research was not applicable.

A participative enquiry, which is a methodology associated with interpretivism, involves participants in the study (Collins & Hussey, 2009). This is an interesting methodology to use since the participants are part of
the progress and has an impact on the result. The reason for not using this methodology was mainly due to lack of resources but also the interest to gain an objective research.

Designing a survey is one way to understand and identify problems in an industry, but the target group was believed to have a low response rate due to the geographical distance and the confidential nature of some questions interesting to pose in such a survey. Furthermore, in a survey it is not possible to ask attendant questions, which was a crucial part for the study.

2.3.1 Reflection regarding validity, reliability and generalizability of method

To increase validity regarding the investigation in the industry, interviews were performed with 23 key persons with different roles and viewpoints throughout the supply chain. This enabled the researchers to understand the industry and to reduce bias. Furthermore, data collected from interviews was ensured by sending the transcription and key findings back to chosen interviewees for confirmation and to decrease misunderstanding. Regarding the subsidiary, all employees were interviewed at the subsidiary, whereupon the validity can be increased by interviewing employees at the parent company to understand their viewpoint of both the parent company’s and the subsidiary’s resources. The secondary data was collected from what is considered to be reliable, and recently updated sources consisting of e.g. scientific reports, company websites and annual reports. Data triangulation was performed by combining interviews and secondary data collection with a field diary, where the latter was used to structure observations, thoughts and ideas throughout the project.

During the interviews, the interviewers adjusted questions depending on role and knowledge areas, which was achievable due to the semi-structured interviews. The language was also adjusted when needed. Both these actions are believed to decrease the risk for misunderstandings. The questions were also posed in a neutral way, in to not lead the interviewee to certain answers.

As for reliability, it can be increased by interviewing more players on the market to receive further viewpoints and to target path dependency better. If the study was remade with other researchers, the results may differ due to subjectivity when formulating interview-questions and selecting interviewees. Another aspect to consider in this case is that semi-structured interviews were applied, which sometimes encourages the interviewee to go off topic, hence producing some variations in the response and also different areas to explore. Yet, we argue that a qualitative approach should be used since it is important to understand the players in the industry, and to identify what factors that are strongly path dependent and which of them that are beliefs and mind-sets rather than actual reasons for why things have been done in a specific way for an extended period of time. It would be of value to use a complimentary approach to increase reliability, e.g. ethnography, and yet sustain the deeper understanding of the market. When using a qualitative approach, open-ended questions can be used and the way a question is answered is acknowledged, and therefore enabling a deeper understanding for factors causing path dependency.

2.4 Limitations

Time is one of the main limitations, which mainly is reflected on (1) the scope of research, (2) the number, depth and type of interviews, (3) the number of companies in the supply chain that are studied, and (4) markets investigated. With more time other methodologies could have been of interest and the scope could be extended. If (2) and (3) would have been accomplished, a deeper understanding for the case-study market could have been accomplished, whereas for (4) would have been of great interest to be able to generalize the contribution more. There are still many question marks and doing a comparable analysis on several different markets or with another research group would have raised the contribution a level by looking for trends and differences.
Limited capital and a geographically spread supply chain limits the research to interview a certain number of players on the market, i.e. some of the players exhibiting at Fruit Logistica, a yearly international fruit fair in Berlin. Visiting banana farms, to see the procedure in reality and then compare with the statements from people in other parts of the supply chain, could have resulted in other business opportunities. This applies to the whole supply chain, the optimum would have been to visit the plants and follow the banana throughout the supply chain to understand and identify the problems, obstacles and possibilities better. This had implied a different methodology and a methodology triangulation could have been used.

Another limitation was the interest in sharing information, which constrained the research. There are players that will not share specific information, which narrows the information available about the supply chain, operations and the market. Confidential information that can be harmful to the business of the case study company was left out of this thesis, such as further explained strategies. This could potentially affect the level of detail of the information provided in the findings. However, it does not affect the method, analysis process or conclusions.

The mapping of the industry is based on an interweaved picture of interview material as well as secondary data. Therefore, operations and performance might vary depending on what actor that is studied. An increased number of interviews reduce the risk for large variations, but the reader must keep in mind that the description of the supply chain is generalized from a limited set of actors. If time, scope and capital had been extended, more actors could be involved in the research.

The researchers’ background and perspectives are relatively homogenous, since both have a similar educational background and shared values. This affected the research approach but also what was found interesting and important.
3 Market Conditions and Case Study Company

3.1 Market Conditions

The international banana industry is characterized by a geographically fragmented supply chain where growers often are situated far from end-consumers and the industry has an oligopolistic structure with three dominating players – Chiquita, Dole and Del Monte, as well as many small and some medium sized companies, as seen in Figure 4 (Evans & Ballen, 2012). They, as well as Fyffes, are in this report referred to trans-national companies when the information is sourced from interviews, if the information is sourced from public information i.e. company website or annual report the company name is used as reference.

The largest players are vertically integrated and control the whole supply chain either by owning their own plantations, ripening facilities and distribution networks or by forming strong alliances with other players (TNC1, 2013; TNC2, 2013a; TNC3, 2013), which both enables economies of scale and increased market power. It also indicates a highly cost-driven market, since the market shares are evenly sized. The export value, export volume and value per kilogram has all increased in overall since 1970 (FAOSTAT, 2013), whereas the compounded annual growth rate is calculated to be 4%, exceeding the global inflation. In Figure 5 the industry is summarized and potential risks and problems are highlighted.
3.2 Case Study Company

The company profile and business concept is presented followed by its key resources categorized into technology and knowledge, network, parent company and human resources. The company in the case study is a subsidiary to a Swedish company with global business in the paper and pulp industry and is referred to in the report as “the subsidiary”. The subsidiary is specialized in packaging and supply chain solutions for the global fresh produce industry.

The subsidiary is expanding as a result of the parent company’s strive to invent new ways to sell their products and services (S6, 2013). Currently the subsidiary offers two types of solutions by either working as consultants with different actors in the fresh produce industry or by offering a part in their alliance. The fresh produce industry is fragmented and there are few actors that have a holistic perspective (S2, 2013) and what the subsidiary can offer is extensive knowledge within paper and packaging solutions (S5, 2013) as well as a holistic perspective on supply chain (S1, 2013; S2, 2013). “The subsidiary does not merely sell boxes but a concept, which includes understanding the customer and how to decrease waste” (S5, 2013).

3.2.1 Technology, knowledge and product

The parent company is known for producing high quality paper (S5, 2013), which the subsidiary has access to, likewise technical knowledge and the production facilities when the subsidiary sells their concept (S3, 2013; S4, 2013; S6, 2013). The uniqueness of the concept in the fresh produce industry is that the subsidiary...
has knowledge about paper performance, cold change management, logistics etc., combining all these areas require significant investments to gain the same knowledge (S2, 2013). The subsidiary combines all these aspects and turns it into a concept, which they can then custom fit for different industries and customers (S3, 2013; S5, 2013). There are regional differences regarding paper quality, Scandinavia has access to a lot of forest, which enables them to include virgin fibers in the produced boxes, i.e. the fiber is not circulated, resulting in paper of high quality that better endures humidity. In other parts of the world much of the paper is made out of circulated paper, making the boxes heavier and less durable, which sometimes not shows until towards the end of the supply chain. However, the Scandinavian fluting (virgin fibre) is a scarce commodity therefore all boxes cannot be made out of fluting (S4, 2013).

3.2.2 Network

The subsidiary has many different types of actors in their current network, from large to small including importers, converters, growers and retailers (S2, 2013; S3, 2013). One of the reasons for the broad network is that they work in many industries, where they have formed alliances; in Europe for example they have contact with approximately 80 % of all importers (S5, 2013). One of the goals with the alliance is to make the partners into ambassadors of the quality concept (S6, 2013). The network of the parent company can be used as an extension to the subsidiary’s own network. This is beneficial since the subsidiary can use the parent company’s selling network, especially when entering a new market, and thereby easier find the person with decision authorities (S3, 2013). The parent company’s existing network has been built for a long period and some agents have been in contact with converters for 15-20 years on markets the subsidiary wants to expand to, which shows the importance of the network (S4, 2013).

3.2.3 Parent company

The parent company manufactures and sells products in three different segments within paper and pulp and has customers in 100 countries. The business model builds on high quality material, solution services and a global network. The company falls into the category of large cap and is the parent company in a company group consisting of several subsidiaries (Parent company, 2013).

The parent company has full ownership of the subsidiary (S2, 2013), hence creating the structures of a large company with centralized functions such as economics and IT, whilst maintaining an entrepreneurial business model of a smaller company. In the parent company, people have been working with complex business solutions for many years, and the subsidiary has a lot of use of this technological and business knowledge within the paper and pulp industry (S1, 2013). Other crucial resources from the parent company are the sales network and financing (S2, 2013). The brand is also important since being part of a large company with a long history within the paper and pulp industry gives credibility (S4, 2013; S5, 2013).

3.2.4 Human resources

The subsidiary consists of six employees with diverse backgrounds within economy, master of science in chemistry, international business and marketing, political science, sales, finance, international export, business development and international relations (S1, 2013; S2, 2013; S3, 2013; S4, 2013; S5, 2013; S6, 2013). “There is no typical employee, everyone has different strengths and complement each other” (S5, 2013), but the common denominator is that they are “dedicated, motivated and curious and work hard to achieve the common goals” (S6, 2013). The organization is flat which makes everyone open-minded and ultimately enables the best idea to win, the culture is international considering that the employees are of three different nationalities (S1, 2013).

Their key competencies are that they are business minded (S5, 2013; S6, 2013), understand the customer (S4, 2013; S6, 2013) are structured (S6, 2013), flexible (S2, 2013), have knowledge of the whole value chain and how to sell complex solutions on the B2B market (S4, 2013). The employees also have a drive to solve complex problems where no solutions exists, which requires them to be patient and willing to test new
solutions and also to be optimists since some procedures take a lot of time (S5, 2013). To summarize the employees could be described as “organized entrepreneurs” (S6, 2013).
4 Literature Review

The purpose of this section is to review relevant literature within the three areas (1) market entry strategies, (2) resource focused literature, and (3) path dependency. This is done to form a basis for the study and ultimately determine where this study belongs in existing literature and thereafter identify the gap. Firstly, current strategic market entry, both market analysis and market entry mode, are reviewed since it is the main theoretical area where the study aims to contribute with new knowledge. Secondly, the area of resource focused literature is selected due to the nature of the research question’s second sub question, which focuses on specific characteristics of the entering company. Theories of resource focused literature will act as guidance in analyzing the entering company to create a suitable entering strategy. The remaining area path dependency is the key to create a research, which takes on a different angle from previous literature. The study rests on the assumption that a market strongly characterized by path dependency can benefit from a new type of approach for market entry when entered by a player with a wide scope of competencies and attributes, hence, leading up to the discrepancy in existing literature, which will be elaborated in this following section.

4.1 Market Entry Strategy

Every market has its own structure with economic, technical characteristics and drivers. By investigating and understanding Porter’s Five Forces in an industry the potential of profitability can be determined (Porter, 1979) and a strategy for the market to enter can be formulated (Porter, 2008). The analysis is focused on industry level as opposed to individual companies and describes how a strategy can be formulated by choosing the right industry and the smartest competitive point (Collis & Montgomery, 1995). The five forces are (1) threat of new entrants, (2) bargaining power of buyers, (3) threats of substitute products or services, (4) bargaining power of suppliers and (5) the rivalry among existing players (Porter, 1979). The underlying argument of Porter’s framework is that an industry’s structure determines the competitive environment, which needs to be understood by a company to create its strategy (Collis & Montgomery, 1995). This can be contrasted with the PEST analysis that focuses on a company’s external and internal environment by studying political, economic, social and technological factors (Yingfa & Hong, 2010). The factors can be studied from a micro as well as macro perspective where the factors are seen as either static or dynamic. The criticism of the PEST analysis is that it in some ways is ambiguous and inaccurate, therefore it should be seen as a theoretical approach as opposed to a method (Jalvemo, 2007). Another method closely associated with the PEST analysis is the SWOT analysis that also conducts an internal combined with an external analysis by looking at a company’s internal weaknesses and strengths as well as the external opportunities and threats. In doing this, the focus is on same aspects as in the PEST analysis. The SWOT analysis is widely known; it was
formed in the 1960's (Gyson, 2004) and is occasionally considered outdated whereas many contemporary approaches in management literature tend to focus more on resource-planning (Wernerfelt, 1984). However, the resource-based approach can be seen to enrich the SWOT-analysis by adding to the internal perspective (Gyson, 2004). Therefore, all approaches discussed are interesting to compare and contrast to the approach put forth in this paper.

Entering a new market is one of the most important strategic moves for companies (Samiee, 2012) since it can have “significant and far-reaching consequences on a firm’s performance and survival” (Ekeledo & Swakumar, 2004). There are several theories within the field of market entry and multiple entry modes to apply in the company expansion. In overall, a trend towards more complex market entries is seen, meaning that several areas of research are interweaved (Canabal & White III, 2008). Due to the high amount of market entry research, Saimee’s (2012) categorization of market entry modes, (1) ownership and control issues (2) country risk and development levels (3) cultural distance, is used in this literature review to help the reader to categorize market entry perspectives. The categorization is only used for the overview, wherein the writers of the thesis have read literature and sorted it by applying Saimee’s categorization.

Firstly, there are several strategies to enter a new market – joint venture; licensing; exporting; wholly owned foreign investment; acquisition; green field investment; sole ownership; merger; parent spin-off and franchising (Buckley & Casson, 1998; López-Duarte & Vidal-Suárez, 2012; Helfat & Lieberman, 2002), are some to mention. Depending on the choice of entry mode, the company can have different levels of control, (a) control over market entry, so called equity mode or (b) non-equity mode. Strategies such as joint ventures and wholly owned investments is categorized as equity mode (Canabal & White III, 2008) and by forming a joint venture with local actors local access of knowledge and informal environment can be gained by sharing the business (López-Duarte & Vidal-Suárez, 2012). Regarding non-equity mode, i.e. contractual modes such as alliances, denotes smaller investments compared to the equity mode and therefore also a lower control rate (Canabal & White III, 2008). A co-occurring theory in the literature, called Transaction Cost Theory (TCT), illustrates the make vs. buy decision, and includes the actual costs related to it (Business Dictionary, 2013) and indicates that sole ownership and joint ventures are used as entry modes when transaction costs are high (Coase, 1937).

Secondly, a firm has to consider country risk, which usually is measured by weight score and factor weight and the total country risk can then be determined (Cheng et al., 2011). Levy & Yoon (1993) categorize risk into political, social, foreign exchange, non-economic, economic and payback risk and develop, what they call, a “fuzzy logic framework”. Morschett, Schramm-Klein & Swoboda (2010) stresses that if the country risk is high, companies tend to choose a co-operative entry strategy.

Thirdly, cultural distance is developed from Hofstedes model (Kogut & Singh, 1988) and around 22 700 articles have in some way included Hofstede’s cultural contributions (Samiee, 2012), which are four dimensions identified on cultural differences. It is one of top three of the most common constructs on entry modes based on a research articles from 1980-2006 (Canabal & White III, 2008). Physical distance on the other hand, is described as “the degree to which a firm is uncertain of the characteristics of a foreign market” (Kogut & Sungh, 1988, p 413), and is a term reflecting geographical differences on markets. Demirbah et al. (2007) points out language diversity as an important component in physical distance that is overlooked in the literature even though it plays an important role in the market entry strategy. The linguistic distance is “more fundamental and more widely applicable than values surveys” (West & Graham, 2004, p. 239), meaning that there are limits in using value-based measurements regarding culture. This factor is not always captured when applying cultural distance. The larger the cultural distance is, generally, the firm aims for full ownership (Cho & Padmanabhan, 2005).

Even though the above-mentioned categorization can seem quite logical and holistic, research tend to include a wider spectrum of fields of studies to increase understanding of the market. There has been a transition in
entry mode, from theories including TCT and anthropological perspectives, e.g. cultural distance, to a more complex theoretical understanding i.e. including sociological perspectives to increase understanding of the market (Canabal & White III, 2008). Schuster & Holtbru’s study (2012) for example shows the complexity when analyzing how multi-national companies (MNC) enter low-income markets and how the companies can increase their knowledge on the new market to enter the markets successfully. The research emphasizes the poverty alleviation, which also shows the complexity of new market entries when not only focusing on e.g. costs. Previous research usually compares two ways of entry modes e.g. wholly owned subsidiary versus joint venture (Canabal & White III, 2008). When adding a third variable such as political risk or linguistic distance to the subject (López-Duarte & Vidal-Suárez, 2012) the complexity increases.

When forming a strategy for entering a new market there are many factors to consider as presented above, and also multiple ways of looking at a market entry. There are many different ways of defining a market and therefore many options for market entry. Before the network perspective was acknowledged a market could be defined as “…each country is surrounded by fences corresponding to economic, institutional and cultural barriers to business” (Johanson & Vahlne, 2003, p. 91) and the research normally emphasized one enterprise. In the network perspective, on the other hand, the enterprises are interconnected (Håkansson, 1982) either directly or indirectly (Sharma, 1992). Johansson & Elg (2002) implies that the network perspective is part of the strategy and vital when a company is building entry barriers on the market to defend its position. Johansson & Vahlne (2002) also emphasize the importance of networks and in their research it was found that companies learn about the new market in relationships, which “gives the firm a platform for entering new markets”. Shuster & Holtbru (2012) agrees that networking is a key factor to success and stress that co-operation is important when internationalizing the business and that only some MNCs in some industries recognize the benefits of bottom-of-the-pyramid strategy. There are also risks in network relations, e.g. lacking synergies, or being stuck with an unattractive partner, which could affect the firm’s strategy negatively (Johansson & Elg, 2002). When looking at networks in a supply chain perspective it can be categorized into (1) horizontal, i.e. competition, and (2) vertical, i.e. suppliers or customers. The network can be used for creating entry barriers, thereby “the network perspective stresses collaboration as a viable strategy” (Johansson & Elg, 2002, p. 414). It takes time and resources to build network relationships and it is complex (Johanson & Vahlne, 2003), but building a network should be seen as an investment (Johansson & Elg, 2002).

Resources have been emphasized in market entry literature and are considered to be important when choosing entry mode and market. As Niu et al (2012) puts it “our results demonstrate that different firm resources play different roles in determining entry-related advantages” (p. 11). Canabal & White III (2008) found that resources are commonly used in entry mode research, and the RBV shared 7th place as the most common theory used in market entry research between 1980-2006. Helfat & Liberman (2002) also stresses the importance of resources in a market entry and adds historical antecedents in their research, meaning that pre-entry resources make an impact on entry mode. Ekeledo & Sicakumar (2004) on the other hand have in a quantitative research elaborated several company characteristics and resources such as technology, firm size, human resources, complementary resources and so forth to match the markets’ different entry modes based on a control level such as sole ownership or joint venture.

4.2 Resource Focused Literature

Selznick (1957) was according to Mills, Platts & Bourne (2003) perhaps the first to put competences, a type of resource, in a strategic context. According to Collis & Montgomery (1995) though, a new wave in strategy literature took place during the 1980’s. Strategy firms was during the time expanded at a rapid pace, and the pace of the market place constantly increased, which put pressure on firms resulting in that various large corporations such as IBM, GE and ABB were struggling in the late 1980’s. At the same time, management research shifted its focus to meet the new strategy demand, such as to total quality management,
reengineering, core competencies and the learning organization (Collis & Montgomery, 1995). This does not mean that previous market entry literature has become obsolete, rather the resource perspective can be used to complement existing theories and models focus (Gyson, 2004). The umbrella concept RBV was introduced during this time and according to Collis & Montgomery (1995) the new focus was to be crucial for firms in the future. This section reviews previous research focused on the resources’ role in strategy formation and will initiate with definitions of the concept and thereafter primarily discuss RBV.

4.2.1 Resource definition

The definition of resource that is used in this study was put forth by Wernerfelt (1984):

“By a resource is meant anything which could be thought of as a strength or weakness of a given firm. More formally, a firm’s resources at a given time could be defined as those (tangible and intangible) assets which are tied semi-permanently to the firm. Examples of resources are: brand names, in house knowledge of technology, employment of skilled personnel, trade contacts, machinery, efficient procedures, capital etc.”

(Wernerfelt, 1984, s. 172)

Resources can thereby be categorized into tangible or in-tangible (Wernerfelt, 1984; Penrose, 1959). Penrose (1959) described the tangible resources as “plant, equipment, land, raw materials, semi-finished goods, waste-products and by-products” (Penrose, 1959, p.24) and in-tangible resources as the human resources available at the firm (Penrose, 1959), in which competencies and capabilities can be categorized. As mentioned, one of the first authors to emphasize competencies in strategic context was Selznick who defined distinctive competencies as “commitments to ways of acting and responding built into the organization. When integrated, these commitments define the character of the organization” (Selznick, 1957, p. 47). Porter’s definition differs from Selznick’s by putting distinctive competency in a competitor-context as the ability to create a competitive advantage for the company by setting it apart from its competitors (Porter, 1979). Capabilities on the other hand must not be confused with competencies but rather consists of a “collection of routines that, together with its implementing input flows, confers upon an organization’s management a set of decision options for producing significant outputs of a particular type” (Winter, 2000, p. 983). Multinelli & Piscitello (1998) on the other hand emphasize that the firm consists of resources and assets that are developed from internal learning, “Competencies and assets are then firm specific, unique, very difficult to reproduce outside the firm’s boundaries, and path-dependent” (Multinelli & Piscitello, 1998, p. 492).

There are other ways to categorize resources beyond tangible and in-tangible resources. For example, Helfat & Lieberman (2002) separate resources firstly into core and complementary resources in their study, whereas the first is fundamental and the latter “are those required to profit from core knowledge” (p. 732) and secondly into specialized and generalized resources and capabilities. Mills et al. (2003) implies that competencies exist at different levels in an organizations hierarchy and are interconnected to create a higher level of competence of the firm. Regardless of hierarchical level where the competence exists the performance of it depends on “(1) the health of the resource […], (2) the appropriateness of its resources to the service required […], (3) the co-ordination of the resources […], (4) the performance of sub competences which act to develop co-ordination aspects or resource health and/or appropriateness, (5) the priority given to the activity […], (6) how often the competence is exercised” (p. 992). Finally, creating a sustained competitive advantage requires careful consideration of resource and competence strategy which is further elaborated in the RBV discussed in the following section.

4.2.2 Resource based view – a model to evaluate resources

The RBV is a way of analyzing a firm’s profitability in relation to its resources and therefore gives different
insights as compared to taking on a traditional product perspective. A key aspect is to identify resources that can lead to an advantage towards competitors and most desirably create a resource position barrier and thereby secure a more long-term competitive advantage (Wernerfelt, 1984). According to Collis & Montgomery (1995) “The RBV combines the internal analysis of phenomena within companies with the external analysis of the industry and the competitive analysis” (p. 119) and thereby emphasize how important it is to match the resources to the environment, demand and what other firms offer. To achieve optimal growth a firm should combine existing resources with development of new ones (Penrose, 1959).

Sustained competitive advantage is achieved when a firm has a value-creating strategy not used by any competitors and when those competitors are not able to duplicate the strategy to achieve the same benefits (Barney, 1991). Barney’s (1991) model of how to create sustained competitive advantage builds on the assumption that firm resources are heterogeneous and immobile. Furthermore, there are four attributes that a firm resource must have to create sustained competitive advantage; valuable, rare, imperfectly imitable and no existence of substitutes. However, the RBV has been criticized by Priem & Butler (2001) for various reasons. They imply that the framework is based on circular arguments and thereby is self-verifying. Barney (1991) on the other hand implies that the resource must be valuable to contribute to improved performance of the firm. This is achieved either by developing and using new opportunities or neutralizing threats. The resource must also be rare in the sense that it is unique compared to other firms’ resources. If the resource is not rare, i.e. exists in the same way at a competitor it enables the competitor to merely copy the strategy. The difficulty is to determine the degree of rareness required to create competitive advantage. Generally, it is required that the number of firms with similar resources is less than the number of firms required to create a market with perfect competition (Barney, 1991). Priem & Butler (2001) argue that different configuration of resources could achieve the same result and thereby the framework fails to serve its purpose in selecting the key resource amongst others that will create a sustained competitive advantage. All in all, the writers regard the framework as having limited prescriptive suggestions. Barney (2001) responds to the critique by emphasizing that the framework assists in giving some guidance on how to identify key resources, but agrees with the notion that the “value” aspect of a resource is the least parameterized in the framework and that a development of the framework would focus on parameterizing. Important to keep in mind is that the value of the resource is to a significant degree determined by elements in the competitive environment (Barney, 2001), therefore each case requires a customized model.

The first two attributes put forth by Barney (1991) enables a resource to create a competitive advantage, however the advantage would not be sustained as long as the resource is possible to be imitated by competitors or if substitutes exist. Dierickx & Cool (1989) imply that there are three main causes to why a resource can be imperfectly imitable. Firstly, it could have been created by unique historical conditions that are impossible for other firms to copy. Secondly, it exists a casually ambiguous relationship between a firm’s sustained competitive advantage and the resource. Therefore, other firms find it hard to copy since it is difficult to determine the relationship. However, due to the ambiguous nature of the relationship it is not certain that it is the resource that is the source of sustained competitive advantage. Foss & Knudsen (2003) argues that the concept of sustained competitive advantage, which is one of the basic arguments for using the RBV, is not unambiguous in itself. In some cases it is impossible to determine why some firms outperform their competitors (Demsetz, 1973). Thirdly and finally, the resource itself is socially complex and impossible to measure and influence (Barney, 1991). Examples would be the relationship between employees and managers as well as culture and reputation. Collis & Montgomery (1995) elaborates on the discussion about the complexity of resources by stating that resources are created and developed by their specific path, which makes the resources difficult for others to adopt and use, i.e. historical events have an impact and contributes to entry barriers.
4.3 Path Dependency

Path dependency refers to a situation when historical activities and performance affect and delimit future ways of doing things (Morgan, Shelby, & Robert, 1996). In a system where path dependency is present, actors are hemmed by existing structures and institutions which govern the way the system functions (Wilsford, 1994). Path dependency occurs due to the so-called network effect, meaning that “…the benefit of consuming a good or adopting a technology varies directly with the number of others who consume the good or adopt the technology” (Morgan et al., 1996, p. 151). An example of path dependency is the case of the VHS, which succeeded over Beta format (Morgan et al, 1996), resulting in technology and products developed in line with the VHS format. Another example is the use of the QWERTY keyboard instead of Dvorak, where any other combination of letters on the keyboard would be superior to QWERTY according to Dvorak, who together with Carnegie Corporation studied the matter for over 20 years. When using Dvorak compared to QWERTY, the finger movement is reduced by 90% (Neill, 1980). Even though there are superior ways of doing things, a specific path is already chosen and therefore difficult to change.

4.3.1 The potential downside of path dependency

As in the example of QWERTY, a result of path dependency is negative lock-in effects where an inferior technology is used and thereby preventing development of more efficient technologies (Morgan et al., 1996). Wilson (1994) emphasizes how actions by a few individuals early on in the development could affect the whole system, leading to a "lock-in" of a pattern that is collectively suboptimal (Wilsford, 1994, p. 252). Early on in the development, several different paths might co-exist and the sustained path might be chosen due to chance and random variables. Once a path is chosen and starts to gain supporters, it becomes more difficult to switch to other methods, even if the chosen path turns out not to be the optimal one. Regardless the attractiveness of new solutions or opportunities, a system shaped by path dependency is reluctant to challenge status quo (Wilsford, 1994).

4.3.2 The ambiguity of path dependency

It can be argued that all industries are more or less path dependent since historical events and decisions have led the industry onto the path of the present. However, some paths are more difficult to change than others. In a Tayloristic reality where everything is measurable, there would be a scale that categorizes markets into different levels of path dependency. However, the concept path dependency is constituted by a grey zone where it is complex to compare the level of path dependency in different industries to each other. There are some aspects that could be discussed though and can function as guidance to whether a market is strongly path dependent or not. The ambiguity of path dependency results in an overlap with other concepts, one of these is Albert Danielsson’s discussion of sediments. Danielsson implies that successful solutions to old problems leave some residue, so-called sediments, which affect future solutions to new problems (Solli & Demediuk, 2008). The line of reasoning that old ideas become a part of new ones could be seen as corresponding to the one of path dependency; that historical decisions lead to the present path.

Another aspect, which could facilitate some sort of indication to whether an issue or industry is strongly path dependent, is institutions. They are categorized into formal and informal institutions (Peng, 2008), whereupon both could contribute to strong path dependency since they are rules defining the current path. Institutions constitute frameworks for how organizations as well as individuals must act and also interact with each other (Rugman, 2010). According to Peng (2008) formal institutions can be laws and regulations, whilst informal institutions are norms, culture and ethics formed by society. He exemplifies formal institutions by stating that “… formal requirements on market entry modes affect alliances and networks” (p.197), which is e.g. present on markets where government does not allow for instance acquisitions. This contributes to form alliances with local businesses if entering the market. To make changes to formal institutions it is required that the ones who govern the law agree to make changes, therefore these are difficult for a single player or
even a group of players to change. Hence, they can be seen as factors contributing to strong path dependency since they are more complex to change. Informal institutions on the other hand can to some extent be challenged when applying the path dependency approach. These are the so-called “rules of the game” (Nickerson & Silverman, 2009), and to delve deeper in the societal structure to understanding why certain institutions exist could pose an opportunity to change these. In other words, informal institutions are norms, culture and ethics, whereas “… values, beliefs, and actions of other relevant players […] influence the behavior of […] individuals and firms.” (Peng, 2008, p. 93), but also the ‘taken-for-granted values’ and beliefs influence individual and firm behavior (Peng, 2008). These could also bee seen as factors contributing to strong path dependency, but not as strong and difficult to change and influence as the formal institutions.

One example of an industry where institutions, both formal and informal, inhibits future development is the wine industry. An ongoing “Wine War” is present between “new” wine countries such as USA and Australia, and “old” wine regions such as France, Spain and Italy (Chow, 2013). According to statistics from Trade Data And Analysis (2011) the traditional countries have a negative trend in the amount of produced wine, whereas “new” wine countries have an increased production. There is a resistance from the old wine regions towards locating wine production in the new countries due to informal institutions consisting of traditions and an idea of what wine is as well as how and where it should be produced. However, the new wine regions are more flexible regarding location of the farms (Chow, 2013) and have focused on innovation (Bartlett, 2009), which enables mass production to a greater extent and has also contributed to improved grape flavor, together returning a higher yield (Bartlett, 2009). Bartlett (2009) refers to Heijbrock in his work, concluding that a cost difference corresponding to 74% when comparing costs of two large producers – one in France and one in Australia, exists. The old wine regions are governed by stricter regulations concerning i.e. yield limit, the species of grapes, sugar content and what technology to use (Rugman, 2010). These formal institutions prevent the old wine regions to keep up with the pace of the new wine regions that are not restricted by the same rules. Also, the informal institutions formed by society of the expectations of wine and its origin is becoming increasingly distorted as consumer demand is shifting (Chow, 2013). In this example, the technology is not central in formation of the path, it is rather a question of expectations on the product and formal institutions creating a path for the old wine regions that is impossible to affect unless the laws are changed. Formal institutions in this case contribute to strong path dependency, whilst the informal institutions such as norms and expectations, although path dependent, are possible to change.

4.3.3 Ways to determine the significance and cause of path dependency

The relevant question here is to discuss when path dependency becomes a delimiting aspect significantly inhibiting future development. All industries can be considered path dependent, and one way to determine whether features are strongly path dependent is to study the history of innovation and change within the industry. Typically, discontinuous innovations are rare in the present state of a strongly path dependent market since they “cause a paradigm shift in science or technology and/or the market structure of an industry” (Financial Times Ltd., 2013), thereby creating a discrepancy from the initial definition of path dependency. Innovation in industries usually occur in different waves, Abernathy and Utterback (1978) implies that most innovation occur during the formative period, which they call the “fluid phase”, thereafter the fluid phase enters into a transitional phase when innovation slow down and ultimately innovation decline in both product and process and the industry enters the “specific phase”. Typically, these types of industries become highly driven by cost and high volume to enable economy of scale, whereupon processes and innovations occur more seldom and incrementally. Hence, the features of the market that have entered onto a path dependent phase have not always been there.

Path dependency itself is a broad concept, which in this report will be divided into path dependency concerning different features of the market consisting of process, product, technical, inter-relational dynamics
and attitude, as seen in Figure 6. This framework, developed by the writers, is derived in this report from previous literature of market entry (Porter, 1979; Yingfa & Honh, 2010), resources (e.g. Wernerfelt, 1984; Penrose, 1959; Multinelli & Picicello, 1998) and path dependency (Abernathy & Utterback, 1978) since they are considered to cover aspects of the market relevant to investigate to determine the significance and cause of path dependency. For example, the inter-relational dynamics aspects build on Porter’s theory of the significance of forces and relationship between different players in an industry. The framework is in this report referred to as the “path dependency framework”, and the categories and their relevance will be elaborated in the following section.

Figure 6 Path Dependency Framework

Process

The process refers to how operations are performed across the supply chain. If processes are characterized by path dependency this leads to difficulty to change current operations due to i.e. infrastructure in different parts of the supply chain or other rigid aspects of the process. Returning to the argument of describing a path dependency aspects as one with low innovation, a discontinuous innovation can be seen as a result of product invention, however “for it to occur dynamic forces from seemingly unrelated processes or industries often must converge upon the environment to develop a new consumer market” (Buffington, Amini, & Keskin, 2012). The process is therefore highly relevant regarding innovation and path dependency, and it is possible to investigate how dynamic the design of a supply chain is to answer the question of the existence and cause of strong path dependency.

Product

According to Utterback (1978), products can be categorized into assembled and non-assembled products, whereupon assembled products consist of multiple parts i.e. computers, automobiles and smartphones, while non-assembled products consist of only one or few materials. There is a difference in the innovational pattern between the two types of products both regarding the product and process innovation. In the transitional phase in product innovation for non-assembled products there is an increased demand, which requires process change to meet the demand. Manufacturers drive innovation and the product itself becomes increasingly undifferentiated at the same time as the process becomes more rigid and capital intensive, therefore the cost of changing the process increases while the number of competitors decreases. During the transitional phase for assembled products on the other hand there are still innovations and improvements to the product driven on by consumers as well as manufacturers, there is some automation in the processes but the cost of changing the process is lower compared to non-assembled processes. Based on the discussion of innovation, path dependency can occur at different phases of a product life-cycle depending on the type of product.

Technology

The technology category refers to technical aspects that enable the production process or the product. Anderson and Tushman (1990) explained how a dominant design in an industry usually follows a time of technological breakthroughs, so-called technological discontinuities that radically change the industry. Thereby technical innovations can be studied to understand if an industry has a dominant design created by
specific technical aspects, which can contribute to that the industry itself is associated with path dependency and reluctant to change.

**Inter-relational dynamics**

The inter-relational dynamics category focuses on the relationship between different actors in the industry. From a supply chain perspective these can include exporters, importers, trans-national companies, logistics companies etc. Path dependency could be represented by a static relationship where each actor has a rigid role, and where it is difficult to change the dynamics of the market. Supply chain systems have been considerably static in a radically changing business environment (Buffington, Amini & Keskinturk, 2012), but will be inclined to be more dynamic and responsive as complexity for companies in the 21st Century increases (Koh & Saad, 2006). However, the possibility of a multi-agent system (MAS) to adapt and change the supply chain is limited due to complex web of supply chains (Buffington et al., 2012). Inter-relational dynamics can also pose entry barriers for potential new entrants due to path dependency. One example of how the context and the structure of players affect competitive advantage is when Marks & Spencer, a British company, failed to duplicate its success in North America. Marks & Spencer has a long-going history in UK and has managed to build an efficient domestic supply chain over years where they also have an established reputation and brand. In North America, Marks & Spencer lacks the established reputation and must compete with the resources that are present there. Collis & Montgomery (1995) also implies that “entry barriers are really resource barriers” (p.149). The relevance of path dependency in this example is that the market place in North America looks different compared to the one in the UK due to different paths created by years of operations, incidents and other players.

**Attitudes**

The attitudes refer to the players constituting the MAS as well as the customers. An “innovative attitude” is a key factor for creating a successfully innovative company (Claver, Llopis, Garcia & Molina, 1998). Different factors affect innovation and the fear of loosing is occasionally stronger than the potential to win in sparking innovative processes (Porter, 1990). Even though it can be argued that innovation often occur by incident “it is more evident that successful innovations are the result of a previous disposition to accept challenge put by any kind of opportunity” (Claver, et al., 1998). Correspondingly, resistance to change by employees at different hierarchical levels in an organization could act as an inhibiting factor to new innovation (Berna-Martinez & Macia-Perez, 2012) and ultimately contribute to strong path dependency. The resistance can be caused by the informal institutions, which Peng (2008) emphasize. One way to portray path dependency in customers’ attitude is by an example; Gerber Products sells baby food and one could argue that the brand name can be imitable, however re-creating a brand reputation takes a long time and it is difficult for a competitor to gain trust of Gerber Product’s current customers (Collis & Montgomery, 1995). The example shows that brand connotation is built over many years of marketing, thereby the history creates a type of path for the product as well as entry barriers for competitors.

**4.3.4 Formulation of model for market entry by targeting the source of path dependency**

Figure 7, developed by the writers, is a way of looking at the identified market entries derived from the framework and gives an overview of how the company can target factors caused by path dependency and create business opportunities. The ovals in the outer perimeter represent the desirable state for the subsidiary on the new market. As opposed to Porter’s (1979) view on entry barriers and Collis & Montgomery’s (1995) view where entry barriers resources are the entry barriers, barriers caused by path dependency in each business opportunities are described in the rectangles. The middle square represents the subsidiary and its key resources. For each target area main barriers to enter are identified, as well as the resources needed to overcome these barriers.
4.3.5 The relevance of path dependency for the study

In summary, different degree of path dependency exists in various markets and is highly interrelated with the innovative patterns of the industry. The different levels introduced can be used to categorize the market to simplify the process of distinguishing between a market that is strongly characterized by path dependency and a market that is not. Certainly, it is not a straightforward science where everything can be categorized as being either black or white; instead it is considered a grey zone. However, the limit that somehow can be used as a frame of reference for determining if path dependency is relevant is when some aspect (or aspects) in the presented categories becomes an inhibiting factor to innovation and change even though other ways of doing things are believed to be superior to the current solutions.

4.4 Gap in Literature – Contribution to Research

The quantity of entry mode research has drastically increased from 1980 to 2006 (Canabal & White III, 2008) and as presented in previous research within strategic market entry there are several strategies to apply depending on company and market characteristics. The research is becoming increasingly complex due to a wider spectrum of subjects in the theoretical understanding as well as a globalized market place with complex structures (Canabal & White III, 2008). Collins & Montgomery (1995) emphasize how it is important to leverage resources into the “right” market where they can achieve a competitive advantage. “The question strategists must ask is; How far can the company’s valuable resource be extended across markets?” (p. 149). This requires knowledge about the market to enter as well as the resources available and what implications a match of these would have in a potential market entry.

Previous literature mainly applies a quantitative approach, whereas in this study a qualitative approach is applied to enable a deeper understanding of an industry. Furthermore, previous literature has emphasizes different aspects crucial to consider when entering a new market (e.g. Porter, 1978; López-Duarte & Vidal-Suárez, 2012; Cheng et al., 2011; Demirbah et al., 2007) and how resources are elemental when developing the strategy (e.g. Niu et al, 2012; Helfat & Liberman, 2002). This report agrees with the assumption that resources are important cornerstones when choosing entering strategy, but also implies that limited attention has been paid to how a market entry strategy can be formed by targeting path dependent aspects in an industry. The market itself is not path dependent, but aspects of the market can contribute to a more or less static structure of the overall market. By focusing on factors contributing to strong path dependency and not merely accepting that the market structures are static, new ways of doing things can be identified. Instead of
accepting that the current industry structure and processes are optimal because they have been the same for an extended period of time the entering company should question aspects leading to the chosen path. The study intertwines different areas of research to understand the market and adds the path dependency perspective. Hence, the study contributes to the existing body of knowledge within market entry strategies by focusing an external firm’s resources on the aspects that could change a certain path that those in the industry consider to be more or less static.
# 5 Results and Analysis

The chapter includes
- Analysis and mapping of causes of strong path dependency
- Formation of market entry strategies, including prioritizing
- Case study conclusions

## 5.1 Analyzing causes of strong path dependency

In this section industry data is first structured according to the framework introduced in the literature review where industry aspects are categorized into the five categories; process, product, technology, inter-relational dynamics and attitudes, as seen in Figure 8. Thereafter it is determined in each category what factors that strongly contribute to path dependency and what factors that contributes less or none at all.

![Path Dependency Framework](image)

### 5.1.1 Process

There are physical limitations to where bananas are grown due to special requirements regarding temperature, rainfall and sunlight (Nelson 2006). Therefore the market is geographically fragmented since the production is concentrated to certain parts of the world while the product is consumed world-wide. The largest exporter, as seen in Figure 9, is Ecuador, which annually exports approximately 5 million tons bananas (FAO, 2011), corresponding to 36% of the world’s total export of bananas in 2009.

![Global exports by country, 2009](image)

*Based on FAO (2011)*
Furthermore, Colombia is the second largest exporter, but exports only less than half the amount compared to Ecuador, 2.1 million tons. Another noteworthy fact is that the exports mainly take place in the northern part of South- and Central America, and the Philippines, where the latter as the third largest exporting country worldwide (FAO, 2011). Figure 10 shows the distribution of global imports, dominated by Europe and the US, that together with Russia and Italy are the primary countries to import bananas from Ecuador. Japan, the third largest importer of bananas, imports almost 1.2 million tons bananas from the third largest exporting country, the Philippines, but also from Ecuador as almost all other importing countries do (FAO, 2011).

![Figure 10 Global imports by country, 2009](image)

Path dependency is strongly present since the market is geographically fragmented, i.e. the globally consumed product has specific environmental requirements. This cause of path dependency in the process category is difficult to change since the agricultural conditions are crucial for the quality of the product. It is possible to grow bananas elsewhere, which is done in e.g. Morocco and the Canary Islands, where the bananas are produced under a web to meet the temperature requirements (Jordbruksverket, 2006), but during interviews the existence of this production was not even mentioned and is believed to be more or less constant since 2006 (Interviewee A, 2013).

The logistical procedure is rigid due to infrastructure

The banana supply chain, see Figure 11, is rigid due to the requirements on climate conditions in all steps. It is important that the bananas do not start to ripen before arriving to the ripening room, which requires a controlled supply chain and contributes to rigidity. The bananas are not transported with other goods until after ripening, enabling meeting the specific requirements. In this section the supply chain will be discussed and summarized from a path dependency perspective.

![Figure 11 Supply Chain Segmentation](image)

After 12-13 weeks 30-kilogram big green banana bunches are cut down from the plant with machetes and swept in foam pads to protect the bananas on the cableway to the packaging station, where the protecting pads are stripped. The bananas are quality checked and if the bananas fail to meet the requirements, the specific line is stopped. When still on the cableway the bananas are pre-cleaned. Thereafter the banana clusters are cut off, put in cold water, inspected and cut into smaller clusters with five to seven bananas, also called fingers, and then put in water in a tray (Dole, 2008a).

The bananas in each tray are packed in corrugated cardboard boxes, designed for long distance transportation and the amount in each box is decided based on weight, which should exceed 18.14 kg (I3, 2013). The crowns on the bananas are covered in paraffin to prevent the fruit from rotting (Dole, 2008a) then the fruit is...
packed symmetrically around the middle (TNC1, 2013). The packing procedure is rigid to optimize air circulation during ripening. The bananas are packed in two layers with what is usually called a “male” and a “female” layer. The male layer has two bananas on the top of the cluster and three on the bottom, whereas the other is reciprocal. This enables the so called hands to fit each other and space is therefore created between the layers enabling air to circulate in the box during ripening. This is an example of why the supply chain is inflexible and rigid and cause strong path dependency; a change in one step affects the whole supply chain. The example also shows that the box cannot be changed without taking this into consideration (TNC2, 2013a). In other words, if a change in one part of the supply chain is considered, other parts of the supply chain must be taken into consideration to prevent negative effects in another step, in this case ripening.

There are three ways of packing bananas (1) in clusters, (2) single bananas and (3) bananas in plastic bags (Dole, 2008a). An extra plastic bag surrounds the bananas to slow down ripening and is placed inside the cardboard box and sealed at the top (TNC2, 2013a). The box consists of two parts, a top and a bottom (G3, 2013) and is assembled at the plantation (Dole, 2008a). The number of boxes on each pallet varies depending on company, according to TNC3 (2013) 48-50 boxes a pallet is common, while an importer and ripening company states that there are 54 boxes on each sea pallet, whereas some are put on a so called euro pallet, which carries 24 or 28 boxes (I6, 2013). Each pallet is marked with an EAN-code to enable the bananas to be traced (Dole, 2008a). The bananas are loaded onto a truck and driven to the harbor. At the port companies can hold containers, e.g. Dole holds 2000 containers at the Puerto Moin, Costa Rica (Dole, 2008b).

The boxes can either be stacked on each other (Dole, 2008b) or loaded in containers (G1, 2013), as shown in Figure 12 and are thereafter lifted onto the vessel (Dole, 2008b). An increase in volume bananas transported in reefer containers can be seen (I6, 2013), which indicates an improvement of the process since traditionally reefer vessels were used. It is easier to control the climate when transporting in containers, which creates an incentive to use this solution. Path dependency is therefore not strong regarding shipping technology when isolated from other steps of the supply chain. The box and pallets on the other hand indicates strong path dependency since the new reefer must be optimized to enable the optimum number of containers transported, which means that the improvement must be adjusted to the already existing rigid supply chain.

Transportation from the country of origin to the importing country is usually outsourced to a logistics company (G1, 2013; G2, 2013). The TNCs own their own fleets, use a combination of own fleet and outsourcing or lease ships to e.g. increase flexibility (TNC1, 2013; TNC2, 2013a; TNC3, 2013). The boxes are packed in containers, usually holding 1090 boxes (G1, 2013), or on pallets placed directly in refrigerated rooms on the vessels (I6, 2013) that hold a temperature of 13.5° under deck (TNC1, 2013) where atmosphere technology is used to ensure quality (Dole Food Company Inc., 2011; I4, 2013; I5, 2013), primarily measuring temperature, humidity and CO₂–levels (I6, 2013). In order to deliver the bananas in the right condition, i.e. unripen, the vessels are pre-cooled to +8°C (I6, 2013). New container-vessels are developed where nitrogen is inserted to the cargo to decrease the level of oxygen “… to put the bananas to sleep”, i.e. prevent the bananas to ripe (TNC1, 2013). “The banana is vulnerable during transportation, depending on the duration and
Transportation from Africa to Europe takes on average eight days, while transportation from Central America to Europe takes 11 days. In some cases the symptoms of damage would appear already during transport or upon arrival to the discharging port, and in some cases will be revealed later in the warehouse, as natural (unwanted) maturation of the fruit sooner than normal, i.e. shorter shelf-life. There have been trials to perform ripening during sea transport, but currently it is more expensive and further decreases the ability to adjust volume to present demand, which is difficult to promote on a cost-driven market.

When the bananas arrive at the port a quality control is performed and occasionally bananas are repacked depending on customer requirements. During the quality control the pulp temperature and color are inspected, to ensure that the bananas’ natural ripening process has not initiated. The main importing harbors in Europe for bananas are Antwerp, Bremenhaven and Rotterdam, where the bananas thereafter are transported to final destination. Ports in Italy and Greece are also quite big, where the bananas imported to Greece are transported to the Middle East. In North America the largest port is Wilmington, Delaware, which is the second largest importing port for bananas after Antwerp. The bananas are then transported to the final country of destination. As regarding Sweden, smaller vessels with containers are used to transport bananas from Rotterdam to Helsingborg or Stockholm where the bananas are unloaded and transported either by trucks or train to the ripening facilities.

The ripening process consists of four steps: equalization, gassing, continuous temperature settings and regular ventilation. When the bananas arrive at the ripening facility, the temperature of the pulp is increased and an even temperature is reached. The plastic, which embraces the bananas, can be of three different types – banavak, polypac, and polytube. Banavak is the cheaper technique that lacks holes in the plastic and therefore needs to be cut off manually through one of the holes on the shorter side of the box to enable air circulation. Polypac on the other hand does not need to be cut opened since it already has four small holes enabling ethylene gas to reach the bananas. Usually, polypac is used in countries where labor is expensive since no extra work is needed. The polytube, which is a plastic bag that is opened on both sides, is only used for transports to USA since the transit time is shorter.

When the bananas are placed in the ripening rooms and the right temperature of the pulp has been reached, ethylene gas is inserted to the ripening room for 20 minutes to initiate the banana’s own ripening process, and when the ripening process has started the bananas are left in the room for additionally four to seven days. The temperature of the pulp is crucial during the ripening process to meet customers’ specific requirements of ripeness.
There used to be more ripening facilities in Sweden, which shortened the transport time after ripening and thereby reduced the risk for damage. During the same time period, it was more common to transport bananas separately as well, thereby achieving a more optimized climate for the fruit. On the other hand, the technique has improved which somewhat mitigates the impaired process. Nowadays the bananas are transported together with other goods such as meat, frozen goods and other fruit (R5, 2013), which all have different climate requirements and the temperature in the trucks are as low as freezing temperature, which is too cold for bananas (TNC2, 2013a). Damage due to cold climate is not revealed until later on in the supply chain (R5, 2013). To ensure climate conditions, a blanket is used to protect the fruit, but the solution is not optimal. The banana’s sensitivity to cold depends on the degree of ripe as well as the exposure time to cold climate, which especially is troublesome when driving longer distances. It is common that the trucks park outside the store and then pulls the pallets outside before entering the store. Since the trucks unload at multiple stores it is impossible to prevent cold air to enter the truck, which makes it difficult to manage the temperature in the truck (TNC2, 2013a). In general, the bananas endure eight hours in temperature below 11 degrees with a blanket to retain the temperature requirements before the bananas are damaged (R7, 2013).

When the banana supply chain and its logistical procedure is isolated from other products, it is well structured and optimized after the requirements of the banana, but as in the latter example regarding inland transport with other goods, it is difficult to optimize the transport due to the bananas’ special requirements. This implicates a well developed supply chain since all the steps are optimized after the banana. On the other hand, process innovation is highly present in the fluid phase since the product is non-assembled, which indicates that the process has not been updated for a extended period of time and therefore can be labeled as path dependent.

The logistical procedure in retail varies slightly depending on player, but can be categorized into three options (1) retail orders bananas directly from the central warehouse storage owned by the corporate group and then the corporate group is responsible for delivering the bananas to each store (R2, 2013), (2) the corporate group does not have an own warehouse storage and transports the bananas directly, with trucks owned by the corporate group, from the ripening facility to the store (R1, 2013), and (3) the corporate group outsource the transportation from ripening to store, to the supplier (R3, 2013; R4, 2013) and take ownership of the banana once they have been unloaded at the store (R4 2013).

After the bananas have been unloaded they are placed directly in the store (R1, 2013; R2, 2013), sometimes there is one or two excess boxes, which cannot be placed in the store and are then put in a cold storage room for a maximum of one day (R3, 2013; R4, 2013). The majority of the retail chains unpack the bananas manually and place them on shelves (R1, 2013; R3, 2013; R4, 2013), while a minor part of retail chains display the bananas in the boxes directly in store. In the latter case, the boxes are stored on top of each other after the plastic has been opened in each box to enable air circulation (R2, 2013). The retailers who unpack the bananas believe the current solution works well (R1, 2013; R3, 2013) and are not planning to change this procedure (R3 2013). Placing boxes directly in the store would increase the amount of waste due to customers’ ignorance to how fragile the bananas are, since it would encourage the customer to dig around in the box in search for good bananas (R1, 2013).

A way to identify where in the supply chain improvements have an economical gain is to identify waste. Low rates of waste indicates an optimized supply chain and low incitement for process innovation. When waste is identified the process can be studied to understand why change not has already been made. In the supply chain, most waste occurs at the farm (G1, 2013; G5, 2013; I4, 2013) and in retail (TNC2, 2013b; TNC3, 2013). Waste also occurs in other parts of the supply chain, but is generally not seen as a problem. At the stage of growing most waste occurs when bananas are not let through quality control due to insect damage according to G1 (2013). Another reason for waste is damage on the plants, which mainly is a function of the environment, banana specie or disease. Regarding environmental factors, the plants are sensitive to wind and even at lower wind speed the crown can be distorted and leaves torn off (Nelson, 2006), which decreases the...
photosynthesis and therefore the plant's capability to grow bananas (Jordbruksverket, 2006). Another factor that affects the outcome of bananas is drought, whereupon different plants have different capabilities to fill up water-filled energy reserves (Nelson, 2006). The weather last year has been bad, which has affected the skin on the bananas and some have rotten (I2, 2013). The weather conditions can be seen as a macro factor, and one way to mitigate the risk of waste due to bad weather conditions is to have plantations in both Africa and in South America (TNC1, 2013). Bad weather conditions are probably not the only reason for TNCs to diversify risk by having a portfolio of exporters from different countries. Generally the return on investment is higher in Central America compared to Africa, since the plantations are larger in Central America better economies of scale is achieved (Jordbruksverket 2006). There is a more long-going tradition of banana growth in South and Central America, therefore TNC1 (2013) generally owns a higher share of farms in Africa and outsources production in South- and Central America. The source of waste is difficult to change in this stage of the supply chain since they mainly are due to macro effects and are therefore not considered as a factor of path dependency that can be affected by a single player.

Several players state that most severe waste occurs after ripening (TNC2, 2013a; TNC3, 2013), almost 75% of all physical damage (TNC2, 2013b). Waste in stores is approximately 2% (R2, 2013) to 10% (R5, 2013), but it is complicated to define waste in retail (R7, 2013). Possible reasons for waste are (1) improper handling by staff in the store, (2) careless selection by customers (I3, 2013; TNC2, 2013a; R2, 2013), and (3) bananas ripen too early in the store (R3, 2013). Firstly, the bananas are sometimes stacked in piles in the store resulting in damages as well as the placement of the bananas is not always optimal (R5, 2013), i.e. the bananas should not be placed at location with a cold breeze, which some stores do not consider (R7, 2013). This indicates that bananas either have low priority or there is a low level of knowledge. Some retail chains educate their employees on how to handle fruit, including bananas (R1, 2013; R5, 2013), which includes information on how to expose bananas in the store and how frequently the banana shelves should be refilled (R5, 2013). One problem with educating the employees is that stores commonly have a high employee turnover, there are however e-learning as a way to spread knowledge more easily at lower costs (R6, 2013). Secondly, customers are very selective of banana quality and not careful in their selection process, e.g. separating bananas from clusters and leaving single bananas, which can damage the banana and make it more difficult to sell (R1, 2013; R2, 2013; R5, 2013). A major problem today is that the end-consumers are poorly informed, which is “really frustrating” (TNC2, 2013a). R3 (2013) states that there is less waste today due to a changed purchasing procedure where smaller volumes are ordered more frequently. It is difficult to decrease waste related to end-consumer because the problem is behavioral related and there is a negligible economic gain for them. Thirdly, the bananas ripen too early in store, i.e. shelf-life is shorter than expected (R3 2013). It is also complicated to trace the source of waste since the damage does not have to show immediately (I6, 2013).

Another way of looking at waste is inaccurate sales-forecast, that can be defined as non-sold goods, which lead to excess bananas that have to be stored longer and thereafter sold to a reduced price. Therefore a balance between how much the stores are willing to reduce the price and how much they have to throw away is required (R7, 2013). This type of waste is not specific for the banana market, rather a problem related to the purchasing procedure, which on the other hand can be argued to be more difficult compared to purchasing products with longer expiring date. Waste can be decreased by increasing the knowledge of how to handle bananas both for retail and end-consumer. In the end, it is the end-customer who pays for waste that has occurred throughout the supply chain, since the retail price is based on the total volume purchased bananas (R5, 2013) (R6, 2013), which does not give incentives to drive change.

Short summary regarding strongly path dependent factors in supply chain

To summarize, path dependency is strongly shown in the logistical procedure since different parts of the supply chain are interrelated and if one change is made, the whole supply chain must be taken into consideration. One example is the packaging procedure in the country of origin, where the bananas are put in specific layers to enable the optimum ripening when in ripening facilities. The geographical distance can also
be considered strongly path dependent, but not due to a person’s decision, rather the global market and specific requirements of the product. Another example is during transport where the conditions for temperature, CO_2-levels and humidity are measured to control and meet the specific requirements of ripeness demanded by retail.

The infrastructure is also strongly path dependent. The bananas are transported in boxes that amounts to a minimum 18.14 kg, which is a specific quantity, and are transported on pallets with 48-54 boxes on each and stacked the same way. The ships, containers and ripening rooms are therefore difficult to change without affecting other parts of the supply chain.

Another characteristic of the supply chain is long lead times, a factor that affects the logistical procedure. The cycle time from country of origin in South- or Central America to retailer in Europe is 30 days (Fyffes, 2012), which makes the industry quite inflexible. There are some bananas grown closer to the final country of destination, e.g. in Morocco and the Canary Islands, where the bananas are grown under a web to meet required conditions (Jordbruksverket, 2006). This is so far not large-scale and has not been mentioned by any of the interviewees. However, recent development in Sweden is an example that could be put fourth to question the rigidity of the process. Changes have been made to both the location of ripening rooms and harbors. On the other hand this has caused further problems for the following step of the chain – inland transport, which shows that it is difficult to isolate one step of the chain without taking other parts into account.

5.1.2 Product

One challenge with bananas is the difficulty to differentiate the product towards end-consumer since a banana looks the same to the consumer regardless brand. It is also difficult to compete with e.g. chocolate bars since it is not possible to change flavor and packaging (TNC2, 2013a). Even though the fruit and vegetable sector is lagging behind regarding marketing, TNCs have initiated campaigns, for example Dole with its ‘Go Bananas Everyday’ in the US, where partnerships, recipes and promotions were offered daily in 2012 (Progressive Grocer, 2012). Chiquita is an example on how a TNC works closely with retail to market the product more efficiently, they have worked with innovative marketing for a decade and recently installed a 3D display in a retail store, which is a unique marketing concept regarding bananas (FoodMonitor, 2011).

The product is an agricultural product, and can be categorized as a non-assembled product, which according to Abernathy & Utterback (1994) decreases the possibilities for product innovation especially in its mature state in the product life-cycle. Since it is difficult to innovate the product, innovation must focus on other areas than the specific product (TNC2, 2013a), e.g. events and campaigns.

When differentiating the product from other brands towards retail, the box could be emphasized instead of the banana. According to I6 (2013) “many things are still quite ‘traditional’ [on the banana market], meaning that they satisfy the needs, but definitely there is still space for improvements and development”. There have been trials with innovating new or different types of boxes (Fruit Logistica, 2013). A large player in a European country, active in all parts of the supply chain, uses boxes only including the bottom part since retailers request a display box. It is possible since the transit time from the country of origin to importing country only is eight days. The packaging solution is geographically limited and is not applicable for e.g. northern parts of Europe since the banana is sensitive to cold climate and is damaged if the temperature drops below 11 degrees Celsius. The company has made attempts to implement the solution with open top in other countries but generally retailers demand boxes with lid, mainly for the reason of protection from damage caused by handling and by frost-bite (I1, 2013). TNC1 tried another packaging solution - plastic boxes in the UK, and it was found that the box enabled improved air circulation during ripening through the perforated sides. However, the solution was too expensive since the boxes required cardboard padding as well as plastic on the inside to protect the fruit. The conclusion from the trial with the plastic box was that (2013) the conventional telescopic box was the better solution (TNC1, 2013) including the cost parameter.
TNC3 on the other hand has used plastic crates for some of their customers due to customer demand, but the solution with plastic crates is approximately five times more expensive than the conventional box. Some customers demand the plastic box due to sustainability demands; therefore retail chains are willing to pay more for the plastic box. One of the main problems with plastic boxes is the logistics, since the crates need to be shipped empty to the grower location, which is extremely inefficient from both an economic and sustainability perspective (TNC2, 2013a). There have been trials with plastic open top crates transported from Central America, but due to loss of shipping economy on pallet the solution has not proceeded. The overall weight was 765 kg and therefore 14% higher than the industry standard, which is explained by three boxes less per pallet and each box consisting of one kilogram less bananas (TNC1, 2013). From a sustainability point of view the traditional cardboard box is still a good alternative since it is possible to recycle. Apart from recycling the box together with other paper products, the box can be 1) used as waste box for other fruit in the retail store, 2) given to customers (R4 2013), and 3) used as a recycling box for paper (R3 2013). The different uses of the banana box indicate that it is considered to be strong, it is also quite common that people use it for moving homes.

There have also been tests performed on the placement of the holes, which were slightly moved from the center of the short sides of the box to the edge to enable a collective hole formed by two boxes. By doing this air circulation is showed to be improved without having to rebuild the ripening rooms (Fruit Logistica, 2013). On the other hand, when interviewing a quality controller at a ripening facility, the placement of the holes was not a problem as long as the holes match each other. The change was expressed as a major change, which indicates the level of innovation in the industry and shows that path dependency is strongly present.

![The static design of the box](image)

The examples of attempts to innovate the product’s surroundings show that players on the market wants to innovate primarily to decrease costs or due to retail demand. The fact that the telescopic box has been the industry standard for over 60 years indicates that it is difficult to innovate the box with an economic gain, given the same measurements and the performance of the box, illustrated in Figure 14. This is a clear example of how historical chosen paths inhibit future development and therefore creates strong path dependency. The existing infrastructure is one reason that leaves less room for innovation, and the economic incentives must be strong enough to drive change.
The standard banana box, see Figure 15, has had the same more or less the same design since the late 1950's (I3, 2013). It weighs 1.4 kg (I3, 2013), measures 52x38x23 centimeters (I6, 2013), which slightly varies depending on company, is made of cardboard, and consists of two parts, a top and a bottom (G3, 2013) to mitigate the risk of damaging the sensitive banana from inaccurate handling (G2, 2013), cold climate and to increase the strength of the box (TNC3, 2013). There are holes on the sides and larger ones on the bottom and top to increase air circulation when ripening (G3, 2013). One of the main reasons for the static design of the box is expensive infrastructure that is optimized after the boxes - containers, transports and ripening rooms (TNC3, 2013). It is difficult to make changes to the box since the ripening process is optimized after the standard box. The air circulates from the side of the box, so if for instance an open top box would be used the ripening rooms would have to be rebuilt. A ripening room generally has a life length of 20-25 years, therefore making changes to the box requires rebuilding ripening rooms would and needs to have a large economic gain for the banana companies to invest (TNC2, 2013a).

The overall impression when interviewing people from different parts of the chain is that they are satisfied with the box, even though there is room for improvement. Some TNCs have their own central box laboratories where they work with box development and testing on different packaging solutions (TNC1, 2013; TNC2, 2013a). The box is a highly prioritized issue to TNCs since potential cost reduction of the box leads to significant savings due to large volumes. When choosing box supplier the magnitude of the price difference that matters is within 10 USDcents. TNCs continuously try to reduce weight of the box to make it more cost efficient, and if the cost per box is reduces by 0.50 USD the savings correspond to several million USD. One of the inhibiting factors when reducing weight is that the risk for collapse due to humidity during the ripening process increases (TNC2, 2013a). R5 (2013) implies that improvement regarding packaging can be made, since the bottom layer of bananas occasionally are damaged by pressure from the bananas on top. Furthermore, there are many factors that need to correspond, the box must (1) give appropriate protection, (2) have holes enabling air circulation during ripening, (3) be easy to handle, and (4) the measurements need to be standardized and fit euro pallet as well as sea pallet. The latter is not always the case according to I3 (2013), the length of the box is 53 cm, whilst euro pallet is 80 x 120 cm. However, the banana box is a commodity that is standardized globally, making it difficult for a single player to change it (R5, 2013).

**Short summary regarding strongly path dependent factors associated with the product**

The product itself is not considered to be strongly path dependent, since it is a non-assembled product and according Abernathy & Utterback (1994), a non-assembled product indicates difficulties to innovate and instead focus lies on the process innovation in an earlier stage. It was found that TNCs work with innovations surrounding the product instead, such as campaigns towards end-consumer, which is not governed by strong path dependency, rather the opposite. The box on the other hand is strongly governed by path dependency and yet a prioritized matter due to the potential economic gains if cost reduction is possible. New innovative box regarding the box is limited due to the rigid supply chain as discussed earlier. One of the main reasons for why the supply chain is rigid is the product sensitivity with special requirements not to ripen before import, which leaves less room for innovation and change. The combination of these aspects concerning process and product shows strong path dependency – the choices regarding supply chain made earlier has now limited the innovation of boxes.
5.1.3 Technology

The complexity with the product and its rigid supply chain is that no ripening is performed during transportation overseas. This is also a reason seen that causes path dependency in the supply chain, and is therefore further investigated from a technological point of view to determine whether this stage actually is the reason for e.g. banana box design and therefore is the reason for path dependency.

Depending on what type of plastic is used, the plastic can either be left on or needs to be cut open as described before. After the green bananas in the boxes have been loaded in the ripening chambers the process is as following:

- During day 0 an equal temperature of the pulp is attained by increasing the temperature from 14°C to the required 14.5-18°C, which takes either 6, 12 or 24 hours (I8, 2013). When combined with the relative humidity of 90% (Nelson, 2003), the bananas can initiate the next step. However, the temperature of the pulp needs to exceed 12°C according to Nelson (2003) and 14°C according to I8 (2013) to be able to initiate the ripening process (I8, 2013).
- Ethylene is discharged at a concentration of approximately 0.1% (Nelson, 2003) for 15 minutes (I8, 2013). The room is closed for 24 hours with a relative humidity of 90% (Nelson, 2003) and the fruit starts to ripen by itself. No fresh air is used, only the air in the room and the inserted ethylene (I8, 2013). Ethylene is in other words used to start the ripening process, thereby acting as a catalyst (Nelson, 2003).
- After 24 hours the room is ventilated from ethylene (Nelson, 2003). Before opening the door the room is ventilated through special gaps in the ceiling for approximately 20 minutes due to safety reasons. The ethylene is led out of the building to avoid other fruit to initiate ripening (I8, 2013).
- Then the room is closed for three days (depending on ripening time) (Nelson, 2003) at a temperature of 14.5 - 18°C (I8, 2013) and relative humidity of 75%. During this time the pulp can reach a temperature of 32°C and gases such as carbon dioxide develop (Nelson, 2003). The room is ventilated every 20 minutes after the first 24 hours to reduce the level of carbon dioxide (Catalytic Generators, 2013; Nelson, 2003). To accelerate the ripening process more oxygen can be let into the ripening room (I8, 2013).

Generally the ripening process takes 5-8 days (I3, 2013), but there are different ripening schedules from 4 to 8 days, see Figure 16 (I8, 2013). The time depends on when the fruit is needed and what level of ripeness that is demanded (TNC3, 2013), which also decides the temperature during the ripening process.

<table>
<thead>
<tr>
<th>Day</th>
<th>18</th>
<th>18</th>
<th>18</th>
<th>16.5</th>
<th>15.5</th>
<th>14.5</th>
<th>14.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Day 0</td>
<td>Ethylene</td>
<td>Day 1</td>
<td>Day 2</td>
<td>Day 3</td>
<td>Day 4</td>
<td>Day 5</td>
<td>Day 6</td>
</tr>
</tbody>
</table>

Figure 16 Temperature variations in pulp depending on ripening time
Based on I8 (2013)

The shorter the ripening process is, the higher the temperature needed (I8, 2013), whereas higher temperature results in a more rapid process (Nelson, 2003), which shows some flexibility to the system. To avoid damaging the banana, sensors are used to measure temperature and humidity in all parts, and the climate is automatically adjusted by the technology to achieve an optimal climate. There are also manually performed quality controls to ensure quality (Fyffes, 2012). Accuracy and quality controls at each step is crucial, which adds to the rigidness of the process. The ripening time also depends on the amount ethylene inserted to the
The amount of ethylene required for one ripening room is determined by calculating on the free air space in the room. For example, if bananas occupy 40% of the room the amount ethylene gas needed is calculated on the remaining 60%, which is free airspace. There are different opinions on the amount ethylene gas needed; 100 ppm as the lowest level but some ripening companies exceeds 300 ppm. The latter is by some believed to ripen the bananas faster and more uniform (Catalytic Generators, 2013). The quantity of air varies from 1400-3000 m³/h per ton, the efficiency of the circulation depends on various types of leakage paths (van Santen, 2007a).

The airflow is horizontal (TNC2, 2013a), as seen in Figure 17, and needs to be constant in the whole room. To enable equal ripening pressurized rooms are used, meaning that an overpressure occurs on the outside of the pallet, i.e. between wall and pallet, and diminished air pressure in the middle of the room, which is reversed in intervals of six hours if reversed airflow is used. The none-pressurized rooms are outdated since they cannot control climate conditions in the same way as the pressurized ripening rooms and therefore cannot to the same extent ripen the bananas evenly (I8, 2013). The air circulates through holes on the sides of the banana box (TNC2, 2013a) and the efficiency of the circulation depends on various types of leakage paths (van Santen, 2007a). The boxes are never turned upside down during the process, since that would damage the fruit (I6, 2013), but are occasionally turned 180 degrees to assure that ethylene reaches the middle of all boxes (TNC3, 2013). The placement of the holes on the box is not important as long as they match the holes with the boxes on top and next to it, to enable the air to flow from one side to the another. Different banana brands use slightly different holes on the boxes, therefore it is important to only ripe one type of box with the same placements of holes in one room (I8, 2013).

![Figure 17 Left: Air circulation. Middle: Pallets in ripening rooms. Right: Ripening process initiated](van Santen, 2007b; Reliance, 2013)

**Summary regarding strongly path dependent factors associated with the product**

The ripening process can be seen as strongly path dependent regarding *when* in the supply chain it occurs, however, from a technological perspective it is not argued to be path dependent since process innovation has occurred and the ripening process updated with new modern pressurized ripening rooms. The facilities are capital intensive and have a life length of approximately 20 years, which makes the owners reluctant to make significant changes, but once the ripening room has reached its life-length the pressurized room seems to be the best alternative. The up-date in technology has taken the required conditions for the product into account and has enabled bananas to ripe more equally. This is a technical change that does not affect the supply chain or logistical procedure, and can therefore be easily implemented as opposed to when in the supply chain the ripening process should take place; yet the rooms are adjusted to e.g. pallet size, product and boxes.

One can argue that the technological process is strongly path dependent from an attitude perspective, meaning that rumors regarding the ripening process affect future development of other parts of the industry. One example is the ripening process and its airflow that was mentioned as the main reason for why it is complicated to move the holes on a banana box, but when interviewing a player in the ripening stage of supply chain, this was not considered a problem as long as the holes on the different boxes matched each other. Another example regards the plastic, which was mentioned to be an issue in interviews with other players than in ripening, whilst a player in the stage of ripening referred to it as a transport issue; polypac is
used when controlled-atmosphere container is used for transport whereas banavak when a normal reefer is used since the latter creates its own controlled atmosphere. Interesting to add, if a box bananas starts to ripen too early, i.e. on the ship, banavak prevents the other boxes with bananas to start ripening; as for the polypac the ethylene is distributed to other bananas since it has small holes in the plastic which initiate the ripening process. From the ripening process-perspective the conditions when ripening depends on the history of the banana: (1) when it was harvested from the banana tree, (2) the weather in country of origin, and (3) the age of the banana. When the market is demanding a larger quantity of bananas, “the producers harvest bananas when they are younger compared to when the market is slow. When you have younger fruit here [the ripening facilities], you need to ripen stronger to get the right color of the banana compared to if they harvest the banana one week later” (I8, 2013), this shows that ripening is affected by other parts of the supply chain, which was not mentioned when talking to players not present in the ripening stage. The ripening stage is not as inflexible as many players believe.

In overall, the rigidity of the ripening process initially seemed to be one of the main reason for a strongly path dependent market, but turned out to not being as rigid as emphasized in many of the interviews.

5.1.4 Inter-relational dynamics

The relationship between different players in the industry is an important factor to consider when determining causes of path dependency and to understand which player has the power to drive change. This section analyzes power relationships and dynamics in the industry by looking at profit allocation, the role of TNCs and politics.

Cost-split Analysis

To understand the power relationships between players in the industry, a cost-split of the banana price over the supply chain is presented and thereby identify the players with largest impact and monetary saving potential. As seen in Figure 18, retailers take the highest share, almost a third, of the banana retail price (BananaLink, 2010), but the share varies depending on importing country (FAO, 2011). The example is based on a cost-split of a supply chain from Costa Rica to the UK, based on the retail price 1.17 USD/kg (BananaLink, 2010). In 2010 there was a price war on bananas in British retail stores due to customers’ perception of the banana price correlating to other prices in the store. The price in Figure 18 is relatively low, given that retail price in Ecuador was only approximately 0.23 USD/kg less than the price at the stores in the UK (Price, 2010), even though the product needed to be transported overseas, ripened and yet again transported. The current price in UK is higher, around 1.15 £/kg (MySupermarket, 2013), which corresponds to 1.7 USD/kg, for calculations regarding cost-split, see Appendix B. The cost of growing one kilogram banana is 0.27 USD (G3, 2013) gives the category “growers” the share of 16 % of the current retail price and is a smaller share of the total price compared to 2010. This indicates that the supplemental charge is not added in this part of the supply chain. Lowering production costs is difficult due to unions’ demands on e.g. salaries and insurance. A worker in Ecuador points out that their salaries decreased during the price war in Europe, but did not rise when the prices were regained (Food Program - Cut Fruit Price, 2010).
Noteworthy is that the import price is more or less the same, +-6 %, in the examples given in Figure 19, which were chosen based on the geographical spread. Japan’s import price is 0.78 USD/kg, which is the lowest of the four countries in the example, whilst Poland has the highest importing price of 0.88 USD/kg in 2010 (FAO, 2011).

Figure 19 Cost-split after import 2010

Based on FAO (2011)

However, there are some regional differences between the margins after import. Considering the supplement charge between retail and import price, Japan has the highest, 69%, as bananas are sold for 2.52 USD/kg (FAO, 2011). The retail price of bananas in the US is only half the price in Japan (FAO, 2011), resulting in the lowest total supplement charge of the four, 47%. In summary, there are large supplemental increases after the bananas are imported, which varies depending on the importing country. This leads to low flexibility in the process up until retail since each change introduced must be highly cost effective to be competitive.

The volume purchased by retail varies depending on the price from the supplier. If the price is low, the stores purchase larger volumes and market bananas to the end customer more efficiently (R4, 2013). Usually bananas are delivered daily to the store (R1, 2013; R2, 2013; R3, 2013), but occasionally there is no delivery of bananas in up to three days due to poor quality (R2, 2013). The batch depends on retail chain and store size, whereupon one example is 20 boxes daily delivered to a medium sized store in Stockholm (R2, 2013). All in all, retailers have what Porter (1979) denote as bargaining power, which gives them higher flexibility than other players in the chain. Even though they need to make orders one month in advance, it is still a relatively short time to tie up capital as compared to other players in the chain. Retail has the highest margins and can yet pass on costs to end-consumer by adjusting prices.

TNCs on the other hand still have a dominant role on the market, which is shown when looking at the market value. In 2009 the value of the total global export of bananas was just over 8 billion USD (Evans & Ballen, 2012) consisting of an export volume of 14.8 million metric tonnes bananas, and has increased over the years, e.g. in the beginning of the 00’s the market was valued to approximately 4 billion USD (FAO, 2011). As seen in Figure 20, the export value per produced banana has also increased in overall from 1970 to
2009, so has the quantity exported bananas (Faostat, 2013). Generally, an increased market value attracts more players to enter the industry, which eventually disrupts the structure. However, the market structure in the banana industry remains oligopolistic with the same main players as 20 years ago (Jordbruksverket, 2006), indicating that established networks are built causing path dependency in the structure of players on the market.

The compounded annual growth rate of the global banana market is approximately 4%, exceeding the average global inflation. The increased value can have multiple implications, given that the possibility of being a result of increased costs in general is disregarded. Firstly, it has the potential to incite innovations due to increased financial resources. Another possibility is that the current largest players can capitalize even more on the industry. The outcome depends on whether the player with increased margins has the incitement to change current processes or not. Looking at the banana industry, no large changes have been made, which could be an indicator that it functions “well enough” for the players that benefit from the price increase. The inter-relational dynamics remains the same regardless increase of market value, indicating that it is difficult for new players to enter the market, hence path dependency is present in the structure of players on the market.

Trans-national companies are vertically integrated

Business operations are described to enable an understanding of market dynamics. Chiquita’s products are offered in 70 countries in Europe, Central America, Middle East and Asia (Chiquita Brands International Inc., 2011). Dole sources bananas in over 20 countries and then processes, markets and distributes in approximately 90 countries (Dole Food Company Inc., 2011). Fyffes operates in South- and Central America, Europe and the US and annually the company distributes 41 million cases bananas in Europe and 10 million cases in North America (Fyffes Annual Report, 2011). This confirms previous statements that a complicated logistical procedure is present in the banana industry, causing path dependency. Figure 21 defines the TNCs from a supply chain point of view and summarizes what parts in the supply chain that are outsourced or owned by the TNCs. No TNCs own retail stores but some work actively with retail in marketing campaigns and in educating customers on how to handle bananas (Hornick, 2013; FoodMonitor, 2011).
TNCs grow or outsource growing in i.e. Costa Rica, Honduras and Panama as seen in Figure 21, but are not as present on the Ecuador market where the market differs from other exporting countries. Instead the market is dominated by a domestic player, Noboa who exports 35% of the bananas, and Favorita Fruit Company is another strong domestic player (Jordbruksverket, 2006). The trade partly works as a spot market where TNCs and importers buy bananas when larger volumes are needed, which generally is more (TNC2, 2013a). One main reason to the different market structure is political (G5, 2013). In general, the relationship between growers and box manufacturers is characterized by low level of loyalty (G1, 2013; G3, 2013; G5, 2013). TNC2 (2013) specifies the box to an outsourced box supplier who delivers the box to the grower. The TNC decides the design, and other practical details such as material composition, whereas the grower can influence the packaging process (TNC2, 2013a). In general, boxes are purchased from local and independent box manufacturers (TNC1, 2013) in the country where the bananas are grown (G1, 2013), but some companies purchase boxes from other countries as well (TNC1, 2013). Depending on the import market and company, the boxes can be specialized for the import countries, yet purchased locally (TNC3, 2013). It is also possible for the TNCs’ customers to specify their boxes (TNC2, 2013a; TNC3, 2013). The relationship between converter and grower is characterized by long-term collaborations (G1, 2013; G3, 2013; TNC1, 2013). On the other hand, occasionally the growers use multiple box suppliers to meet demand (G3, 2013). Generally, the growers do not see a reason to switch box suppliers, but if they switch there are no switching barriers (G1, 2013; G3, 2013). There are generally only a few converters in the area, e.g. in Ecuador only three (G3, 2013). The low level of loyalty enables change in configurations between growers and converters so it is not a completely rigid process although highly driven by costs.

In 2011 Chiquita initiated changes to their shipping configuration to achieve decreased number of chartered cargo ships and thereby transportation costs. The changes involved using ships of a third-party container-shipping operator to transport part of their core volume of bananas, which increased the flexibility in capacity as compared to if Chiquita would lease an entire ship (Chiquita Brands International Inc., 2011). For Dole,
international transportation is mainly performed using Dole’s own fleet of 17 ocean-going vessels. The products are packed on pallets or containers, where atmosphere technology is used to ensure quality. Backhauling services are used for Dole’s own and third-party cargo to reduce net transportation costs (Dole Food Company Inc., 2011).

TNCs use a mix of outsourced ripening and their own facilities, where they also ripen other’s fruit (TNC2, Fruit Logistica, 2013a; Dole Food Company Inc., 2011). There are also companies solely active in the ripening business that receive the fruit at the ripening centers and then sell the fruit to customers who collect them at the ripening center (I4, 2013). The effect is that all systems need to correspond with each other to enable the transition between systems and enable outsourcing of parts without having to change infrastructure.

TNCs’ customers mainly consist of retail, but also wholesalers and independent smaller stores. For instance, retail stores account for 85% of Fyffes’ sales (Fyffes, 2013) and approximately 90% of Dole’s sales (Dole Food Company Inc., 2011). There is a general trend in retail towards private label (TNC2, 2013a) and according to R7 (2013) they continuously look for new ways to increase the amount of private label products, which in general constitutes 20% of goods in stores (Rabobank Report, 2012). There have been trials regarding private label on bananas, but currently private label is not applied on bananas. It is a challenging business due to TNCs’ power on the market and it would require large volumes to achieve economies of scale (R7, 2013) and to be able to compete with TNCs. Retailers could introduce private label either by working with an external actor who aids them or by taking control over their own supply chain. The latter is associated with high risks for retailers, but also increased profits since the current supplier of bananas is eliminated and thereby retail can increase their margins even more. In either alternative retail would decrease their purchases of bananas from other labels, hence affect the dynamics on the market and potentially reduce strong path dependency associated with market structure since it would challenge the market dynamics.

**Dispute affects exports in the Philippines**

There has been a dispute between the Philippines and China concerning bananas, which started in March 2012 when complaints were raised in China after insects and bacteria was found on bananas from the Philippines. In March 2012 China completely banned import of Philippine bananas for a short period of time, thereafter strict inspections were imposed on Philippine bananas and some retailers stopped purchasing bananas from the Philippines. The incident initially led to waste of large amount of bananas, which were sent back to the importers and then left to rotten in the Chinese harbors (Zhu & Wenting, 2012). At the same time, according to the Filipino Banana Growers and Exporters Association (PBGEA), Ecuador has approached China with offers to fill the increased demand (Olchondra, 2012). The banana dispute began about the same time as the Scarborough Shoal standoff, an incident where illegal Chinese fishing vessels were discovered by the Philippine navy surveillance in the Scarborough Shoal. The Shoal, located in the South China Sea, is an area of 150 square meters of reefs containing valuable marine resources, which is claimed by both China and the Philippines (Inquirer Global Nation, 2012). Stephen Antig, president of the PBGEA, implies that the tension between the Philippines and China over the Scarborough Shoal is the source of the banana dispute, which could trigger an economic downfall of the entire banana market in the Philippines. Half of the Philippine export of bananas goes to China and Philippine banana companies have reacted with a careful surveillance of the fruit shipped to China to ensure quality. The market is now insecure, and it is difficult to forecast how much the Philippines can export to China in the future (Santos, 2012). The effect of the banana dispute with China is that the international price on Philippine bananas has decreased due to excess supply from $4.5-5 to $1.5-2 per box. Therefore, Philippine exporters are looking for other markets to export to, and the Middle East and Europe are both highly interesting (Olchondra, 2012), hence there is potential to change current dynamics in the competition if one of the large player enters a completely new market. This is not considered as path dependent though, rather an event that can contribute to business opportunities.
Summary regarding strongly path dependent factors associated with the inter-relational dynamics

The banana industry is, as stated before, a geographically fragmented MAS with long lead times, which requires meticulous planning and coordination between all players. The planning and optimization has been refined to the extent that most actors have supply chains that look almost the same and are also integrated with each other. TNCs own a large portion of the market, which allocates significant power to them and the ability to change large-scale processes. However, to make investments in new infrastructure there must be potential for significant economic gains since the infrastructure itself is capital intensive and currently functions well enough. The fact that they are similar in each step simplifies outsourcing if required, which is argued to be a legitimate reason for path dependency and a reason not to change.

The industry is unique compared to other fruit industries, partly due to ripening, but mainly due to the presence of TNCs, whereas in other fruit industries importers normally have a large portfolio of exporters and vice versa. There are certainly also large actors in other industries “but not of the same magnitude as these giants” (S2, 2013). S6 (2013) agrees by stating that it is difficult to enter the banana market since a few large players govern it. The fact that the TNCs have been the same for an extended period of time indicates path dependency in the structures of players.

The unequal allocation of profits results in a highly cost-driven industry. Even though TNCs have power in the supply chain, retail has comparatively more power since they can negotiate with multiple suppliers without having to care for customer demand, since the product is difficult to differentiate based on brands, resulting in pressured prices further down the supply chain. One implication that players further down in the supply chain has small margins, is that more focus is put on cost reduction in current operations rather than looking beyond to change processes. Compared to other markets retail has low share of private label, this could be assumed to be due to the path dependent structure of players maintained by the power of the TNCs.

5.1.5 Attitude

The attitudes towards the rigidity of the industry vary. One clear example already mentioned about the technical aspect as a factor contributing to strong path dependency, is the general belief that the ripening process is one of the main reasons for the inert market, e.g. box innovation is made difficult. The banana industry is traditional, I6 (2013) states that “many things are still quite traditional, meaning that they satisfy the needs, but definitely there is still space for improvements and development”. Every step in the supply chain is adapted to the box; transportation, containers and ripening facilities, the latter costs millions to build and operate (TNC2, 2013a). The idea of performing ripening during transportation gets strong resistance from some players since “any yellow box on a vessel is a loss, claim, problem… the banana is supposed to arrive fresh, green, hard, cold” (I6, 2013). The players’ attitudes in the industry could be summarized by saying that there are low incentives to look for large innovations since the infrastructure used today is capital intensive and the processes work sufficiently with low waste. Waste is not seen as a problem in the ripening stage where bananas occasionally are unequally ripened (I4, 2013) and excess bananas are cut off due to customers’ demand of e.g. five fingers clusters instead of the six or seven on each (I1, 2013). The attitudes towards waste is on the other hand legitimate, since bananas occasionally are sold to secondary markets, e.g. sold to smaller companies who can use yellow bananas to sell immediately on the market (I4, 2013) or to manufacturers of baby food (I1, 2013), and is therefore not considered a lost of income, which results in marginal incentives to look for new solutions and change current processes.

The attitude “cheap is good” is identified in the industry regarding boxes, which add to the inflexibility of the system since actors are unwilling to pay more for a box even if the features were changed, for example adding the sustainability aspect to the box. Similar attitudes and cost focus is common for other industries within the fresh produce segment, “a challenge is the mindset, the people working in the corrugating industry in the growing countries want to have as cheap box as possibly, the box is seen as a commodity which makes it
difficult to sell” (S4, 2013). This goes for the attitudes of the retailers as well, they “usually see the box as something they have to have, and the box itself is not the priority” (S5, 2013). The reason for the attitude is the cost-driven market place, which legitimize the attitude. The price is stated as the primary driver when purchasing boxes (G3, 2013; I1, 2013; G4, 2013) where 10 USDcents is significant when choosing box supplier (TNC2, 2013). Quality is also mentioned as an important driver (G2, 2013; G4, 2013), meaning that the box is strong, enduring (G1, 2013) and made of good fiber (G4, 2013) to prevent the box from being destroyed by humidity (G1, 2013). Flexibility is also mentioned as an important factor when choosing box supplier (G2, 2013; G4, 2013; TNC2, 2013a), but yet “… we cannot abandon the price” (TNC2, 2013a). Flexibility is important since the demand for bananas varies weekly depending on the demand from retail (G3, 2013). An additional aspect to consider when choosing supplier is the photo and print quality, which also affect the price (I1, 2013). A European importer does not have a specific system for who buys the boxes in the formed alliance with the grower. Usually the one who get offered the best price orders the boxes (I1, 2013), which also indicates that the market is strongly cost-driven.

A well functioning reclamation system reduces incentives for retail to demand changes in TNCs’ current processes. The suppliers are completely responsible for damages that has emerged somewhere earlier on in the supply chain and retailers’ overall opinion is that reclamation from retail to suppliers work well. Reclamation of bananas occurs frequently, especially during winter since bananas are damaged due to cold climate during transport (R1, 2013; R3, 2013). Reclamation is performed locally from the store (R4, 2013) or centrally from the company group (R2, 2013) depending on organizational structure.

To summarize attitudes regarding path dependency, attitudes towards waste could be seen as legitimate since loss of income is minimized due to secondary markets. Regarding ripening it is not necessarily the technical limits that determine how the procedure is done. Instead, attitudes and beliefs associated with ripening make people reluctant to change. Yet again, a common opinion in the industry regards the presence of TNCs and how it is difficult to enter the market due to market structure, which is a clear entry barrier especially since the market is cost-driven.

5.1.6 Summary - factors contributing to strong path dependency

After mapping and analyzing the process, product, technology, inter-relational dynamics and attitude aspects, the conclusion can be made that these categories are interlaced, which is a significant source to the inertia of the market. The factors that are stated to be the reasons to the way things are done are not always the actual reasons, e.g. regarding the box design. In this case the box is strongly path dependent due to the attitudes in the industry, meaning that other parts of the supply chain believe that the box is designed due to the ripening process or the long transit time. This is partly true, the box has to be strong, but the performance level can be questioned. Maybe the performance was needed when it was designed over 60 years ago, but parts of the supply chain are updated since then and the box has not developed with the surroundings. When interviewing players over the whole supply chain the general comprehension is that the box is durable and protects the sensitive product, and when asking why, the players either did not know or referred to the ripening process or the long distance transport. This shows that attitudes are strongly path dependent. Therefore we argue that the supply chain and its components are not updated to the extent that they could be, with the technical improvements in the surrounding world. The strong reaction when asking if ripening is performed on ships, implicates a traditional attitude. There are many reasons to why the supply chain is rigid, whereupon one is the vertically integrated TNCs together with the non-assembled product, contributing to a mature supply chain.

The industry is complex, mainly due to the fragile product, attitudes and inter-relational dynamics. The rigid process is an example of this, causing a necessary holistic view of the supply chain, a change in one step affects the whole supply chain, or at least that is the general belief. The sensitivity of the product affects the technological aspects such as shipping and ripening and is one of the main reasons for the rigid supply chain,
When adding the aspect of attitude one can see that one of the reasons for not changing and innovating strongly path dependent factors is the general belief of the whole industry. Some strongly path dependent factors are present for a reason but the attitudes make the industry more inert to change. Especially the beliefs about the rigidity of the packaging solutions have the consequence that people do not actively look to improve it. The process has many technical factors that need to be fulfilled but there are also many myths that circulate in the industry about technical specifications and requirements. The analysis shows that one of the main factors causing path dependency is the attitudes and beliefs in the industry.

The geographically fragmented supply chain is another factor causing strong path dependency. Even though farms closer to final destination are put on trial and the payback time is within five years, the market has still not adapted this even though it potentially would be possible for TNCs or a niche market player. The TNCs make it difficult for a new player to enter the market since they have a well-established network as well as formed alliances, which indicates that the inter-relational dynamics are strongly path dependent and the oligopolistic market with the same large players has been more or less unchanged for a long period of time. The interesting part is that retail has a lot of power, based on the cost-split of the banana price and that there is more than one supplier, allowing them space to negotiate.

Another insight is that every player work on their own and not together as a group towards other product categories – the inter-relational dynamics are strongly path dependent in this way. Examples of other industries that exchange knowledge on a horizontal level are e-commerce (Resell, 2013) and the energy sector, even though the latter might also seem inert due to expensive infrastructure. It is difficult when working with non-assembled products, where product innovation is low, and at the same time compete against product categories where innovation and differentiation is highly present. The attitude is traditional and strongly path dependent, since initiatives or new ideas have been met with reluctance.

### 5.2 Formation of market entry strategies by targeting the source of path dependency

Based on the identification of factors contributing strongly to path dependency in the previous section, potential market entries can be formed. The subsidiary is an expert within holistic packaging solutions; therefore one focus in the strategies is to question the rigidity of the box design in the process. The subsidiary could question if the box really is optimized since opinions seem to diverge regarding the reason for the box design. The best way to penetrate the market with a new solution is to collaborate with TNCs since they have both power to change and capital to be in front-line regarding industry innovations. The second suggested strategy targets path dependency formed by existing market structures, or the inter-relational dynamics, by extending the subsidiary’s network to help retail introduce private label. The third strategy also challenges current inter-relational dynamics by introducing collaboration across companies at different parts of the supply chain in a fruit and vegetable board. These strategies are chosen since aspects strongly characterized by path dependency is targeted and that the subsidiary potentially could change these with existing resources.

In the identification of path dependent aspects in previous section other potential strategies were also found. For example the Philippine situation poses an opportunity for the subsidiary to initiate a collaboration with Philippine exporters where the subsidiary offer the exporter aid through their network to enter the European market. Another potential strategy is to focus on waste found in retail due to its large fraction of the total waste in the supply chain. Alternatively find a solution for the problems with heavy boxes in retail as well as the time-consuming process to remove the plastic or to make the box more appealing in retail since it is displayed in certain stores. However, these strategies do not target highly path dependent aspects. The opportunity of aiding Philippine players to enter the European market could be found through a general mapping of the market without focus on path dependency aspect, the same regards retail related opportunities, which emphasize that the path dependency approach should be used as a
complementary approach and therefore enables finding further opportunities. The next section elaborate the three chosen strategies, thereafter the strategies are prioritized and the main strategy is chosen after matching the strategy with existing resources. The three strategies are to (1) collaborate with a TNC, (2) create pull effect from retail by introducing their private label for bananas, and (3) challenge current inter-relational dynamics by initiating a Fruit & Vegetable board. To avoid iteration of the analysis of resources, the discussion in Strategy 2 and 3 sometimes refers to the arguments put forth in Strategy 1 regarding certain resources used in both strategies.

5.2.1 Market entry Strategy 1 – challenging the packaging solution

Objectives

The overall aim of this strategy for the subsidiary is to enter the banana market by acquiring one of the TNCs as a customer to easier challenge the current packaging solution. The TNCs have market shares of 19%, 17%, 14% and 6% respectively of the global banana market where 815 million banana boxes are exported yearly, implying that they have power to drive change. The inter-relational dynamics is challenged in this strategy by giving a TNC competitive advantage through challenging the current packaging solution with external competences within primarily paper and pulp. The initial strategy is to target a geographical niche of one of the TNC’s markets in Europe, thereafter expand to the TNC’s global business if the project is successful.

Challenge current packaging solution

A first step towards long-term business collaboration with a TNC and to challenge current packaging solution can be to offer a consultancy service where the subsidiary evaluates the TNC’s current box in their box laboratory to identify the potential to improve the box itself or to challenge the box design. There are several barriers caused by path dependency to overcome before the presented solution could be executed including technical aspects, attitudes, inter-relational dynamics and the logistical process. First of all, the inter-relational dynamics pose a barrier since TNCs have dominated the market for decades and might not see the benefit of collaborating with a small subsidiary not present on the banana market, since the general opinion from the interviews is that the industry has been the same for an extended period of time and that there is no reason for change. Furthermore, some TNCs own their own box laboratories and work with innovation and also continuously work with optimization of their supply chain, which indicates a drive to change. There are already organizational structures to handle improvements regarding the box and adding a packaging company to their business changes current structures and could potentially be perceived as a threat to their own business. Therefore the subsidiary needs to offer a service or product with added value and an offering either significantly increasing revenue streams or decreasing costs, to overcome the attitudes in the industry. In Strategy 1, focus lies on the latter.

Firstly, the subsidiary could offer extensive knowledge within packaging solutions due to the knowledge from themselves as well as from the parent company (S2, 2013), which few actors within the banana industry possess since it takes a lot of time and investments to build knowledge within paper performance, combined with logistics, cold change management etc. (S2, 2013). It is difficult to find paper with the same performance as the parent company delivers (S2, 2013; S5, 2013), “but nowadays the difference is not as significant as it is used to be”. One implication of the increased competition combined with a limited amount of paper is the importance to optimize the price (S3, 2013). The subsidiary’s material endures a higher humidity level than other material (S4, 2013), which is an advantage in the ripening stage when the humidity varies and the paper needs to be highly enduring. Generally, the material is sourced from a limited part of the world, and sometimes the material is scarce and boxes are made out of recycled paper, which makes the box heavier and less durable (S4, 2013). In other industries, the subsidiary offers a product of consistent high performance throughout the year, which is not always the case regarding the cardboard box. Occasionally when the paper price increases the converters use paper of lower quality for the boxes but with sustained price (S3, 2013). By using the current solution offered by the subsidiary in other industries the TNC is guaranteed consistent high
quality. Secondly, the subsidiary takes on a holistic approach - apart from knowledge about the material they have worked with other fruit industries and have experience within logistics as well as technical aspects (S2, 2013). The subsidiary has knowledge of “true performance” (S3, 2012), meaning that the box is optimized after each supply chain and each unique business idea. The box is a highly prioritized issue for TNCs due to large volumes, hence, the opportunity to reduce the cost per box by either changing the composition or challenging the design this would be of great value to TNCs.

Another important aspect that the subsidiary could target to create a lucrative offer and added value for the TNC is sustainability. TNCs have high demand from their customers to be sustainable and are continuously looking for new ways to reduce their carbon footprint and use of resources in general. This concerns all parts of the supply chain, e.g. fuel on shipments and the box, which is one of the biggest challenges. Generally, if a customer has an environmental requirement of reducing the carbon footprint by 30%, the TNC also has to decrease its footprint by 30%. There are mainly two options where the subsidiary can contribute, which are (a) improve current box, and (b) improve the process when manufacturing the box.

a) Improving the box from a sustainability and cost point of view could be done by reducing the material needed per box, or by improving the material composition to make the box use less material and therefore reduce the carbon footprint. If the subsidiary manages to develop a box, which uses less material it reduces costs for the TNC as well as contributes to positive CSR effects. If the subsidiary could invent a more sustainable box solution this can be used to overcome the barrier of the attitudes that no change is possible, a TNC (2013) states that the environmental aspect is very important in the long-term perspective, but if there is lack of economic incentive to switch to a new box that is more sustainable it will be difficult to implement.

b) To improve the manufacturing process from a sustainability point of view, the subsidiary could offer a consultancy service and examine current operations to identify improvement areas. These could involve reducing the amount of water during the process, looking at new composition of energy sources, changing transport mode etc. All depending on where potential is found after the investigation.

The other path dependent aspects to overcome are the technological issue, the rigid process and the attitudes, which are all intertwined. Regarding the question about the rigidness of the ripening process and the reason to the unchanged box design, opinions and beliefs in the industry diverge. Some state that the process is difficult to change since the air streams are optimized after the holes in the box, and that the lids on the box exists for durability reasons, while others say that the lids are there to prevent dehydration of bananas and that the placement of the holes does not matter. Most interviewees did not have a straight answer to the reasons for the box design and few could answer the question how the design was important for the supply chain more than durability and protection of the banana, which does not imply that the current packaging solution is the best one. The discrepancy in how interviewees believed why the packaging solution and process were rigid indicates that it is the mindset of the people in the industry that is occasionally rigid. Hence, the process is rigid and strongly path dependent, and the subsidiary must still consider the specific requirements of the product, especially during transport and ripening. However, the attitudes of players in the industry might be a larger barrier than the technology itself since the overall attitude from interviews with actors across the supply chain is that making significant changes to the box or the process is not possible. This barrier could be overcome by empirically testing a new box solution to investigate to possibilities to change features of the box, which the subsidiary has resources to from the parent company’s capital as well as the technology (box laboratory) from the parent company to evaluate a new box solution. The subsidiary also consists of business-minded people with diverse experiences (S1, 2013; S3, 2013) that are “organized entrepreneurs” according to S6 (2013). Hence, collaborating with the subsidiary can give the TNC a competitive edge since the subsidiary adds to the in house competencies. Generally the Scandinavian countries are famous for producing high quality paper due to their natural resources (S2, 2013).
reputation of the parent company of being a Scandinavian manufacturer of quality packaging solutions with extensive knowledge and a long history could act as a door opener by giving credibility (S4, 2013). Finally, the subsidiary has trademarked their name (S2, 2013), which stands for high quality solutions (S5, 2013), and could be used as a sales pitch to promote co-branding where both brands are elevated.

Summary of strategy and keys to success

Starting off by entering one TNC in a niched geographical market is considered to be a key to a more long-term successful business. The main reasons for Strategy 1 are:

1. Cost efficient – Collaborating with the TNC on a smaller market in Europe is a cost-efficient choice due to minimal travel expenses and therefore a relationship can be built with the involved players, which is important for the next step of the plan to expand globally together with the TNC.
2. Positive marketing effect – Working with one of the large brands in the banana industry gives legitimacy for future business within the industry but also a potential positive spill-over effect to other industries where the subsidiary has business or will do business in the future.
3. Start small with potential to go global – By starting on a market close to the subsidiary’s core geographical business area, the project could gain more support from the local offices if it is shown to be successful. Thereafter, there is potential to expand globally within the TNC. Each TNC exports 154, 138, 114 and 49 million boxes respectively, which makes it into a profitable strategy if the subsidiary succeeds in improving the current box solution.

Hence, the subsidiary can achieve the overall aim and increase its revenues. As seen in Figure 22, additionally positive spill-over effects as legitimacy, together with increased knowledge of the banana market and extended network primarily on the banana market, will contribute to increased profits. Apart from the overall target decreased costs, the TNC will gain increased knowledge within paper and pulp. Furthermore, positive CSR effects from a sustainability point of view and reputation of being an innovative company are potential outcomes from the collaboration with the subsidiary, which indicates increased profits.

Figure 22 Benefits for players involved in Strategy 1

Summary of barriers caused by path dependency

The main barriers caused by path dependency are (1) inter-relational dynamics, (2) a combination of technical aspects, rigid process and attitudes. The subsidiary must target each one of these to create a convincing offer to a TNC.

Summary of key resources needed for Strategy 1

- Technology and knowledge
  - Material
  - Box laboratory
  - Knowledge of packaging solutions
  - Knowledge of logistics
- Parent company – reputation & credibility
• Subsidiary – stands for high quality solutions
• Human Resources
• Capital

From a resource point of view, the subsidiary can target the entry barriers caused by path dependency. Figure 23 shows that the all barriers - attitude, rigid process and technology, and inter-relational dynamics can be overcome.

![Figure 23 Resources to target barriers caused by path dependency](image)

5.2.2 Market entry Strategy 2 – challenging inter-relational dynamics and rigid supply chain

The overall aim of Strategy 2 is for the subsidiary to enter the banana market by challenging the inter-relational dynamics by selling the service of producing bananas with private label to retail. By taking control over the whole supply chain, margins are not paid to TNCs, which creates incentives for a vertically integrated supply chain. Currently the share of private label within other product categories is approximately 20% and increasing (Rabobank Report, 2012). When transferred to the banana market and combined with a total export value of just above 8 billion USD (FAOSTAT, 2013) the potential value of the private label market is 1.6 billion USD, see Appendix C.

The main challenge is to overcome the inter-relational dynamics. TNCs either own their own farms or outsource growing and regarding the latter, contracts exist and therefore contributes to a vague path dependency. If the B2B market functions well, there are no reasons to change supplier, based on the analogy with the relation between growers and box-suppliers, where the growers could switch suppliers, but does not since there are no reasons for it. The same goes for the rest of the supply chain; TNCs have built entry barriers in form of networks. The TNCs’ network is specified to the banana market, whereas the subsidiary’s network is spread over different fruit and vegetable markets (S6, 2013), which makes it difficult to use the network on the banana market and to outperform the TNCs’ network. The parent company’s network within sales is used on other markets when finding connections (S2, 2013) and is considered important (S4, 2013). The network combined with the parent company’s reputation could enable first contacts. According to S1 (2013) the parent company is not always recognized internationally though, but by having the parent company associated with the subsidiary contributes to give legitimacy when potential customers e.g. search for information on the Internet about the company and find that the parent company has a long going history within the paper and pulp industry.

The advantage of entering the market as a new actor with marginal knowledge about the industry is that the factors causing strong path dependency can easier be avoided. The drawback on the other hand is that the
subsidiary needs to put human resources and time, and therefore also monetary capital into learning more about the market. The subsidiary has financial support from the parent company (S2, 2013; S3, 2013; S6, 2013), which is needed in Strategy 2 since the broad network is not yet established, and the subsidiary has marginal knowledge regarding the banana industry compared to TNCs, and therefore needs to increase their understanding about the industry further.

Another challenge for the subsidiary is the retailers’ attitude towards an external new small subsidiary building a supply chain and contributing to private label. According to interviewees retailers in Sweden are satisfied with the current B2B market with TNCs and might be reluctant to change since this only concerns one of their products, which on the other hand contributes to 1% of retailers’ turnover in Sweden (R7, 2013). The legitimacy can be formed through the parent company and the knowledge from other fruit and vegetable markets, and the unique holistic view (S4, 2013) the subsidiary has. In other words, one risk is the potential doubts due to the inter-relational dynamics, formed by the TNCs’ market power. Another risk is the cost-driven market. Due to the inter-relational dynamics, TNCs are able to decrease costs per product due to economies of scales. The major risk for the subsidiary is that volumes are too low and economies of scale is limited and therefore they cannot meet established competition.

If the strategy is successful, the subsidiary can both increase sales and knowledge of the industry and retail, as well as introduce a new concept, which can contribute to a more well-known brand. Retail on the other hand, will achieve higher margins and gain knowledge within paper and supply chain, whereas the latter can be used for other products in their portfolio. All over all, the goal is to increase profits for both parts as seen in Figure 24.

![Figure 24 Benefits for involved players in Strategy 2](image)

**Summary of barriers caused by path dependency**

The interrelation dynamics consists of (1) presence of economies of scale, and (2) network as the main barrier for this strategy. The interrelation dynamics will be difficult to affect, especially since the subsidiary needs to acquire the same market share as the TNCs to enable economies of scale (given costs are the same), which corresponds to 60% (Appendix C) of the world-wide private label business of bananas, which is a high market share for a small subsidiary with limited knowledge and network within the banana industry.

**Summary of key resources needed for Strategy 2**

- Network – in the banana industry
- Knowledge – mainly the supply chain
- Financing
- Human resources
- Parent company – reputation & credibility

Comparing the key resources needed for Strategy 2 and the current resources the subsidiary has, one can see that the latter is not sufficient. As seen in Figure 25, the inter-relational dynamics could be challenged by the subsidiary’s human resources and capital, and the attitude barrier can be challenged with use of the parent
company’s capital and reputation as well as human resources and technology and knowledge. However, the lack of sufficient network is the main reason for why this strategy is difficult to proceed with. Figure 25 shows that the subsidiary does not have sufficient resources to overcome barriers to entry.

![Figure 25 Resources to target barriers caused by path dependency](image)

5.2.3 Market entry Strategy 3 – challenging existing industry structures by forming a fruit and vegetable board

The strategy aims to challenge the inter-relational dynamics by initiating a horizontal and vertical cooperation. Competing against products such as chocolate bars, soft drinks or other fast moving consumer goods (FMCG) is difficult because e.g. companies selling chocolate bars work actively with product development and is continuously launching new products with different flavors and wrappings. It is difficult to differentiate a banana from its competitors, and to work with product development. The banana brand is not a determinant factor for the end-consumer to choose a specific store. Therefore the third strategy targets the difficulty to differentiate the product as well as path dependency of inter-relational dynamics. As discussed, the product is in itself not path dependent since it is a non-assembled product and it is difficult to differentiate it, which concern more or less all fruit and vegetable. One option is to differentiate aspects surrounding the product. By forming a fruit and vegetable board including members from different fruit and vegetable industries and from different geographical locations members could exchange experience and also collaborate in marketing their product to compete with substitutes to fruit and vegetables such as other snacks. The strategy is a developed idea from a previous trial by an actor in the fruit and vegetable industry and the reason for why the subsidiary could succeed is due to different sets of resources the companies have.

The role of the subsidiary is to create a board consisting of relevant members that could benefit from information exchange and also lead seminars. The incentives for the subsidiary are (1) economical in the form of a membership fee, (2) extended network, and (3) increased knowledge of the banana industry. The inter-relational barrier is constituted by the fact that players have not collaborated in this way before in the industry and might be reluctant to share their knowledge with each other or do not believe it to be necessary with a board. As stated before, the industry is quite old fashioned: “many things are still quite traditional, meaning that they satisfy the needs, but definitely there is still room for improvements and development” (I6, 2013).

The strategy rests on using the already existing network that the subsidiary has since their current network consists of diverse players within the fruit and vegetable segment from all over the world (S2, 2013). Since the subsidiary has experience from working with complex systems on the B2B market (S4, 2013) they are able to invite relevant members to the board, which could benefit from knowledge exchange. The subsidiary could add value in this project by its established network spread in several industries – fruit, vegetables and flowers, and customers that already have a relationship and trust in what the company does today. In order to
overcome the initial barrier of attitudes and the traditional inter-relational dynamics they will need their human resources initially to create a sales pitch that attracts players in all parts of the industry and thereafter create a good atmosphere for discussions and seminars.

The subsidiary has the potential to do so since the employees have experience from working with complex systems where understanding the customer is crucial (S1, 2013). The personality of the subsidiary employees is important for developing the fruit and vegetable board to a concept where the members can benefit from being part of it. The fact that they are innovative and dedicated and also believe in what they do (S2, 2013) is a success indicator. They also have an established network where they already have legitimacy, which makes it easier than to start from scratch. Finally, they have the parent company’s reputation of being a producer of high quality solutions, which further adds to the legitimacy. In a long-term perspective the fruit and vegetable board has the potential to change some inter-relational dynamics in the industry by making company’s collaborate more over industry boarders to contribute to a more efficient industry.

By building the fruit and vegetable board, the knowledge about the banana industry is one of the most important gains, which Johansson & Vahlne (2002) emphasize in their research in the network perspective but also that building the board should be seen as an investment. This is what we believe an efficient way to both maintain, strengthen and extend the subsidiary’s network. The level of control to this type of market entry is low and so is the investment cost. The risk is that other parts within each business out-control the subsidiary and therefore loses its competitive advantage – their holistic view. On the other hand, the board can lead to new business opportunities for the subsidiary by the network, branding and problem identification.

The members in the board have the potential to increase profits through new knowledge and co-operations with other players to market the product better, as seen in Figure 26. The subsidiary can, apart from the new revenues stream, extend their network and knowledge of the market and also achieve a marketing benefit.

Figure 26 Benefits for involved players in Strategy 3

**Summary of strategy and keys to success**

The subsidiary already has an established network, which could be used as a basis for the board and then include players from the banana industry. The main reasons for this strategy are:

1. Cost efficient – since the subsidiary already has the foundation of a network to create the board, the start-up cost will be low.
2. Knowledge of the banana industry – The subsidiary is in a primary stage to entering the banana industry and needs to gain more knowledge to form their business strategy.
3. Legitimacy when proceeding to do further business in the banana industry – If the project is successful it will potentially have a positive marketing effect that helps to establish a reputation of the subsidiary in the industry.
Summary of barriers to entry caused by path dependency

The main barriers caused by path dependency are (1) difficulty to differentiate the product and (2) inter-relational dynamics. The subsidiary cannot affect the first barrier, but the board in itself can work towards creating a stronger marketing effect to leveraging the product amongst other substitutes, shown in Figure 20. The inter-relational dynamics can be overcome by engaging already existing players in the network and include new ones continuously by including the members’ networks given that the players have an attractive profile. Since the subsidiary has 80% of the European importers in their network, the initial work effort is considered small.

Summary of key resources needed for Strategy 3

- Network
- Parent company – reputation & credibility
- Subsidiary – stands for high quality solutions
- Human resources

The strategy mainly requires human resources and an established network, to easier engage different actor, which is shown in Figure 27. The quality sign of the subsidiary combined with the reputation of the parent company makes the concept more attractive to potential members.

5.2.4 Prioritizing between strategies

The order of priority between strategies is based on the three criteria (1) the potential of the strategy to meet the overall objective to enter the banana market, (2) how well the resources of the subsidiary can overcome the barriers created by path dependency, and (3) the overall risks of the strategy. Criteria (1) and (2) were chosen since the aim with the approach is to identify the best potential for the company to enter the market based on their resources and what barriers of path dependency that need to be overcome. Criterion (3) is significant to minimize the risk for failure when entering the new market.

Strategy 1

The first criterion is fulfilled by the first strategy to collaborate with a TNC since this involves directly acquiring a player in the banana industry as a customer. Collaborating with a large player implicates a greater potential to achieve a market penetration since they control a large portion of the market. In previous literature Shuster & Holtbru (2012) stresses that co-operation is important when internationalizing the
business, as for Johansson & Elg (2002) emphasize the risks in network relations, e.g. lacking synergies and getting stuck with an unattractive partner, which could affect the firm’s strategy negatively. By collaborating with a TNC, the subsidiary can take part of the TNC’s network, which Johansson & Elg (2002) emphasize as a potential entry barrier. Adding Johanson & Vahlne’s (2003) view that building a network is both time consuming and complex, a collaboration seems attractive given that both the subsidiary and the TNC will benefit from it. The strategy is a market entry in a non-equity mode, and according to Canabal & White III (2008) means smaller investments made compared to the equity mode and therefore also a lower control rate, which could be seen as a risk since the subsidiary relies on the TNC. However, it is a way to gain further knowledge of the industry without taking high financial risks.

Regarding the second parameter, the main resources needed are knowledge within packaging solutions, capital, technology, human resources, the reputation of the parent company and the quality sign of the subsidiary. The subsidiary in combination with the parent company has an edge regarding the knowledge resource compared to other companies in the paper and pulp industry since the concept itself is unique from being a small entrepreneurial firm with a diverse set of resources that can offer a concept with added value to the banana industry. They have knowledge from working with companies further down the supply chain, and instead of merely selling paper they sell the value of the paper to the customer. S2 (2013) states that the paper and pulp industry is quite traditional and no one else works in the same way as the subsidiary with combining knowledge within paper with a more holistic approach to logistics and each individual business in the fresh fruit industry. In one way there are substitutes to parts of the concept, such as companies offering services that the partners of the subsidiary do, or logistic consultants. But no other company has the whole package combining the subsidiary’s experience of understanding other companies business models (S5, 2013), in-depth knowledge of packaging solutions from the parent company (S2, 2013) and products from the partners. “The main substitute for the model would be plastic crates, but there is a need for more innovation before those will be a threat” (S5, 2013). Regarding the material, the parent company’s paper “…is one of the best paper you could get” (S3, 2013), although there are a few competitors making paper of similar performance. In overall, the subsidiary’s resources are sufficient for the strategy.

The third parameter - risks of this strategy include financial risk associated with the cost of producing boxes to test the solution. However, the subsidiary has an advantage of being part of a company group since they have financial endurance and the subsidiary’s business is considered to be a more long-term investment (S6, 2013), and therefore there is room for trials. Further risks are lacking synergies and the reputational risk, both of which Johansson & Elg (2002) emphasize in their research. If the project does not turn out well this could prevent future collaboration with the TNC. According to Cho & Padmanabhan (2005) a firm aims for full ownership if the cultural distance is large. In the banana industry cultural distance exists since the market is global and by choosing to collaborate with a TNC, the complication of cultural distance is minimized by the TNC since they have their network established with growers in the countries of origin. Therefore the cultural distance for the subsidiary can be neglected.

Strategy 2

In Strategy 2 the customers would be retail chains and the subsidiary will function as a TNC with the exception of not selling their own banana brand. The entry mode can be categorized into both equity mode and non-equity mode depending on the structure of the supply chain. The transaction costs are considered to be high and according to Coase (1937) joint ventures or sole ownership should therefore be considered. By sharing the business with local actors, costs can be shared and as López-Duarte & Vidal-Suárez (2012) point out local knowledge gained, which would be preferable in the banana industry since the subsidiary has limited knowledge and the countries where bananas are grown has extensive knowledge. On the other hand, the subsidiary can also form alliances and decrease the control level and investment costs. Both options need to consider country risk, and the TNCs presence increases the costs associated with the strategy. The language diversity, which is an important component when deciding entry mode according to Demirbah et al. (2007),
will be present regardless level of control but is considered low due to the diverse language skills at the subsidiary. Yet the cultural distance will be present and considerably high, which according to Cho & Padmanabhan (2005) indicates high level of control.

Regarding the second criteria, the resources used here include network, knowledge and technology, human resources and capital. Since the subsidiary has no current business in the banana market there is a risk that their present network is not sufficient for executing Strategy 2, even though they are aided by the selling team at the parent company. This means that they have to start from scratch to assemble a supply chain that can produce and transport the bananas to the retailers. Adding Multinelli & Picitello’s (1998) view that resources are developed from internal learning and therefore difficult to reproduce, indicates difficulties for the subsidiary to enter the banana market by acting as a TNC. According to Penrose (1959) though, a company should combine existing resources with the development of new ones to achieve optimal growth. The subsidiary’s most useful resource, which would be emphasized in a potential sales pitch, is their knowledge and technology, which will enable them to offer the retailer a customized box. The human resources enable the subsidiary to offer a holistic solution where they can also include logistics when optimizing the solution for retail.

Concerning the third parameter - except for the risk of lacking resources, the strategy is associated with a high financial risk since it is both time-consuming and capital intensive to set together a supply chain. The risk can be minimized by outsourcing all parts, and using collaborations and contracting as a strategy, however this also means an increased operational risk since they also delimit their own direct control. These aspects combined with the beliefs in the industry and a relatively low potential profit as well as high risk of competing with the networks of established TNCs, which according to Johansson & Elg (2002) can be seen as entry barriers, lead to rejection of the strategy.

**Strategy 3**

The third strategy – the Fruit & Vegetable board, includes the banana market in the subsidiary’s current network, which can be seen as a pre-entry market action, meaning that the subsidiary can learn more about the banana market and build a stronger network and thereafter enter the market. However, this strategy is not seen as a market entry strategy to the banana market to the same extent as Strategy 1 and 2.

Regarding the resources used in the strategy; the network, the reputation of the parent company, the quality sign of the subsidiary as well as the human resources can be seen as unique when combined as discussed in Strategy 1. The existing network resource lays the foundation to the board and is crucial due to its current composed uniqueness. The human resources of the subsidiary has an advantage from having broad knowledge and skills, their educational backgrounds of engineering as well as economy (S4, 2013) combined with their experience of selling complex systems and working on the B2B market will aid them in this strategy.

The economic risk factor of this strategy is also quite low since no physical investment is needed to initiate the project, the start up cost mainly consists of labor cost associated with finding and contacting relevant players. Thereafter the operational cost is also the cost of labor as well as potential cost of renting conference facilities. The main risk to consider is the risk of negative marketing both for the subsidiary and their partners in the existing network if the project fails. There is also a slight risk of the network replacing part of their business model by offering knowledge and partners from across the supply chain, but the risk is considered to be marginal and can be avoided if the subsidiary can design the forum in a good way. To conclude, the overall risks are small but so are also the overall profits for the subsidiary. This strategy would be beneficial for marketing purpose but it is rejected since it is not a direct market entry to the banana market.
Choice of strategy

To summarize, the resources used to execute Strategy 1 more or less fulfill Barneys criteria (1991) as discussed in the literature review in the sense that they are rare and valuable as well as that there presently are no direct substitutes to the overall concept, which also is a factor to consider according to Porter (1979). However, the concept is not impossible to imitate although it would require considerable financial capital, access to material of same quality (S2, 2013) as well as a group composed of business oriented people. Strategy 1 fulfills all criteria better than the other strategies, has the greatest potential to be profitable combined with relatively small risks and is considered to be a potentially good market entry if the empirical trials in box laboratory are successful. Therefore this strategy is chosen.

The path dependency perspective is an approach to mainly identify different strategies; therefore, before the final decision is made a more in depth economic evaluation is required. This is not included in the report since the focus here is to identify new opportunities where the entering company chooses a strategy that is controversial to the market to achieve a greater penetrating effect. The entering company has solid financial capabilities from the parent company; therefore this type of solution is possible.

5.3 Case Study Conclusion

One of the overall questions posed in this report was: Are new business opportunities possible for the company by targeting the source of path dependency? By identifying causes of current highly path dependent aspects of the industry it was possible to identify the strong influence of rigid attitudes. Thereby the opportunity was found to create an offer to a TNC to collaborate by improving the packaging solution.
6 Discussion and Conclusions

The main question “How does a company with a diverse set of resources formulate an entry strategy where path dependency is significant for the market?” was answered for the case study company, which will be summarized in “Empirical Contribution” as well as in the “Scientific Contribution”. The two sub-questions, “What are the key factors to path dependency?” and “Are new business opportunities possible for the company with a diverse set of resources by targeting the source of path dependency?” were answered in the chapter Results & Analysis and will be discussed in the next section Empirical Contribution, whilst the last question “Why is it useful to understand why different aspects of the industry are strongly path dependent?” is discussed under Scientific Contribution. Thereafter a discussion regarding applicability on other markets as well as thoughts regarding sustainability is presented, to then lastly, suggest future research combined with criticism to the approach.

6.1 Empirical Contribution

The empirical contribution to the case study company was the collection of relevant material regarding the banana industry as well as the formulation of Strategy 1. From the case study an algorithm was formed for how a market entry strategy can be formulated by using the path dependency approach:

1. Categorize industrial information by using the path dependency framework

2. Identify factors in each category that contribute to strong path dependency.
3. Choose area to target by evaluating what factors strongly contribute to path dependency that the company can affect.
4. Specify target area and barriers caused by path dependency as well as key resources needed to overcome the barriers.
5. Prioritize between market entry strategies by evaluating (1) the potential of the strategy to enter the market, (2) how well the resources of the subsidiary can overcome the barriers created by path dependency, and (3) the overall risk of the strategy.

By executing this procedure the three strategies were presented for the case study company along with a fourth strategy that did not target path dependent aspects. Strategy 1 was recommended and also chosen to delve deeper in by the company. The fourth strategy involved the situation in the Philippines, which did not target factors caused by strong path dependency. It was rather an observation of a demand on the market, and with the right resources it would be possible to aid exporters and thereby enter the market. Political power from one country has affected the banana industry in another; this is an event, which could ignite a change in the industry as the Philippine industry is looking to move beyond current geographical regions. By using the opportunity caused by the increased demand from Philippine actors to enter another geographical market the case study company could use their network to aid them in this process. However, the conclusion was that this market entry did not have a good match regarding resources and that the risks were considered high, and therefore the strategy was rejected.

When mapping the industry to answer the question “What are the key factors to path dependency?” and “Are new business opportunities possible for the subsidiary with additional resources from parent company by targeting the source of path dependency?” the most important source to path dependency that could be overcome by the use of the subsidiary’s resources were attitudes. This conclusion can be made by asking different actors at different parts of the supply chain in the industry and observing that contradictory answers were received when asking questions about aspects that were categorized as strongly path dependent. By showing that changes are possible to aspects that are considered to be more or less static, such as the packaging solution, the subsidiary has the potential to make changes to the industry. The quite rigid mind-set of many actors in the industry could origin from the aspects that makes the banana industry different from other fruit industries. Above all, the sensitivity of the fruit delays the ripening to the importing country, which in turn makes the process more inflexible than other fruit industries. Strategy 1 challenges the assumption that the packaging solution is difficult to change. The benefit of using the path dependency approach is that new types of business opportunities can be found by not taking the sources of path dependency for granted. In this case, the entering company had a benefit from its many and diverse resources, which made more than one strategic focus possible and therefore the path dependency perspective was developed and applied.

6.2 Scientific Contribution

The path dependency approach is an ambiguous and subjective concept that can be of use when formulating an entry strategy into a new market, but further research is needed to evaluate the application of the approach.

This paper, as stated in the introductory parts, aims to fill the gap in existing literature of how a market entry strategy can be formed by targeting aspects of the market characterized by path dependency. In the case study we have described how a subsidiary with resources from a well-established company formulated an entry strategy into a market where elements are strongly governed by path dependency. In order to evaluate the scientific use of this study we will here describe why it is useful to understand why different aspects of the
industry are path dependent, and thereby answer sub-question 3. Existing frameworks are applicable to a large extent for companies already offering a product or service and searching for new markets to enter, i.e. they need to push it onto new markets and therefore need to decide which market to push the product onto. When a company on the other hand knows what market they want to enter and is more flexible in how to enter the market, meaning that they have a range of offerings from existing product portfolio or if they are prepared to develop new ones, there are some limitations of existing models i.e. Porters Five Forces. It is complex to evaluate competitors and substitutes as well as identify customers and suppliers, according to Porter’s approach, when the product or service is not yet defined. The same regards the SWOT analysis since it difficult to define opportunities and threats without a specific product or service. On the other hand, SWOT can still be useful in identifying opportunities and threats to evaluate and prioritize between different options for market to enter.

We argue that the path dependency approach is used as a complement to other market entry models. By applying the path dependency approach new business opportunities not apparent to existing players on the market can be identified and then matched to the entering company’s resources. The path dependency approach is particularly useful when the product or service is not yet developed and the company has many different resources, enabling a more diverse market entry portfolio, in which opportunities can be prioritized against the company resources. The logic lies in that features on a market strongly governed by path dependency are not changed or improved for a period of time and therefore enables large improvements and potentially new revenue streams when changed. This can be the case when the path dependent feature is strong due to informal institutions such as existing attitudes and beliefs more than the actual reason pinpointed by industry representatives or perhaps if the entering company has enabled a new technology making a significant change to the industry.

After the business opportunities are found, the market entry proceeds in a similar way as proposed in other market entry literature, except when prioritizing between the potential business opportunities. In contrast to other literature we imply that company resources should be matched with the barriers of path dependency, and if all barriers are possible to overcome, the market entry is considered to be possible. This could be compared to Porters’ (1979) barriers to entry or Collis & Montgomery’s (1995) statement that “entry barriers are really resource barriers” (p.149). The point is that there are already different types of barriers to entry, and we emphasize barriers caused by path dependency, which might be useful to add to other perspectives.

Regardless industry, revenue streams are important to emphasize and as Saimee (2012) implies, entering a new market is one of the most important strategic moves for companies, and it is therefore important that they are done with care and knowledge. When not being limited to existing products and services and the entering company is flexible in how and where to enter the market strongly governed by path dependency, we argue that a company could benefit from using the path dependency approach, although further research is needed. By doing this, unique business opportunities can be identified and eventually lead to a new market entry.

6.3 Discussion

As discussed in the literature review there might be resistance to this approach with the argument that all markets are more or less governed by path dependency. Using the path dependency approach gives a new point of view when analyzing the market that the existing players may lack, and thereby creates a competitive advantage for the entering company. External resources might be required to initiate the change, since the current mindset is strongly governed by path dependency. In other words, looking at characteristics of a market where things are done according to a chosen path gives a new way of finding business opportunities that might have been overlooked or dealt with in the industry, but in a different and limited approach than if a new player with the path dependency approach had.
6.3.1  Applicability on other markets and fields of study

The path dependency approach is of interest especially for companies with entrepreneurial characteristic and a wide spectrum of resources to enable a market entry on a slowly changing market. When using the path dependency approach we argue that the entering company should possess a spectrum of resources to increase the chance of finding and executing an efficient market entry. Furthermore, we believe that the entering company can achieve great changes if an opportunity is found with the approach, since other players have not changed these areas for an extended period of time. We are of the opinion that the approach is not industry-specific, rather market characteristic specific with the primary feature of being a slow-changing market.

An example of another relevant industry to apply this approach on is the automobile industry. Due to increased global pressure to decrease levels of carbon dioxide and use of diminishing oil resources, the industry must shift towards more sustainable solutions. The significant barrier in this industry caused by path dependency is expensive infrastructure that has to be rebuilt such as gas stations, parking lots and garages as well as new infrastructure, such as charging stations, that has to be integrated into the society. But there is also a need to shift customer attitudes towards how an automobile is used, the customer will have to charge the vehicle at their homes and one of the main issues today with the electrical vehicle technology is battery time, which requires customers to plan their trip more detailed than before. Applying the path dependency approach to the automobile industry could result in a more thorough comprehension for what aspects that are most difficult, but also possible, to change in an initial stage and why, for instance, there would be a reluctance to shift to electrical vehicles. Identifying what aspects in the automobile industry that lead to path dependency, apart from the apparent infrastructural issue, could enable a more efficient shift towards sustainable fuels.

The path dependency approach could also be applicable in other areas, such as when analyzing the company’s resources. We realized when interviewing the subsidiary that some of the answers from the employees working at the same geographical office were the same and differed from the employees at offices at other locations. This sparked the idea of how the path dependency approach could be generalized to human resources and organizational aspects. The different mind-sets can be caused by path dependency, meaning that different offices choose different paths and therefore affect employees’ ways of thinking as well as working, similar to the discussion regarding informal institutions. The implication could be a limited set of resources and thereby the company risks to overlook potential business opportunities. To extend the approach further, it can also be used to investigate how companies value and prioritize resources. There might be resources that the company does not emphasize due to an earlier chosen path based on former market-dynamics and therefore is considered not to be relevant. When entering new markets these resources can be valuable but not recognized due to the employees’ mind sets, which can be considered to be caused by path dependency. Thereby, given these examples, the approach can be extended to social and organizational aspects as well.

6.3.2  Reflections on sustainability implications

As stated, the path dependency approach aims to challenge aspects that have been static for an extended period of time. The implication could be that i.e. new technology, material or processes have evolved ever since the current structures were formed, which makes the industry more efficient if implemented. In the case study, one of the aspects that the case study company will try to change is the packaging solution and in doing this they will reduce the material usage. Hence, by more efficient use of resources they have contributed to the sustainability aspect in the industry. Regardless if the use of the path dependency approach leads to a direct reduction of the usage of resources, the player entering the industry must have an offering that is
superior to those of the current players, which we believe can have a potential to have a positive sustainability effect since improvements will be made to the existing solution.

Generally, more focus is put on sustainability, whereas the network organization Global Reporting Initiative (GRI, 2013) is an example of this since sustainability is put forth within accounting. According to Gustavsson (2012) Global Reporting Initiative is the most used and a fast growing standard for sustainability reports. Even though companies themselves grade their own sustainability progress based on reporting guidelines from the Global Reporting Initiative (GRI, 2006; GRI, 2013), it is yet one example of that sustainability is attended to. One potential reason why Global Reporting Initiative is more frequently used is the customers’ demand to include sustainability in purchased products or services and thereby a way for companies to differentiate themselves among competitors. Another reason is due to institutions, as the case in Sweden where risks must be included in the annual report regarding environmental impacts according to Swedish Account Legislation (Gustavsson, 2012). Laws and regulations differ in countries though, which leads to different levels of focus on sustainability. When a company is entering a new market, the path dependency approach could be considered as guidance or a new perspective to include when formulating the entering strategy, where the company’s focus on sustainability need to be put forth.

6.4 Future Research and Criticism

The path dependency perspective should be seen as a complementarity approach, or a way to think and analyze by putting on the path dependency glasses to be able to spot interesting business opportunities. It would be of interest to compare a market entry with the path dependency approach with another approach on the same market, performed by two different research groups to identify similarities and differences, and thereby conclude if it leads to different market entries or if the market entries are similar. This would also be relevant to do on another market strongly governed by path dependency to identify if the banana market was a coincidence or not.

Some criticism towards the study is that the packaging solution would probably have been investigated, regardless using the path dependency approach or not, given the case study company’s set of resources. The remaining question is if the findings would have been the same with another approach? We believe that we would not have gained the same insight regarding industry beliefs and mind-set, since we probably would not have delved deep enough. Furthermore, the path dependency approach enabled identifying the opportunity leading to Strategy 3, which is not apparent when using approaches that aim to push out an existing product on a new market. The strategy in the path dependency approach to delve deeper and always have an open mindset led to the identification of this opportunity. Due to lack of another research group a comparison could not be accomplished but is instead suggested as future research.

The presented framework for categorizing the market strongly governed by path dependency is applied in the case study in this thesis. It is derived from existing market analysis theories, such as Porter’s (1979) framework of competitive forces, the SWOT analysis (Gyson, 2004) with its identification of opportunities and threats, and finally the PEST analysis (Tingfa & Hong, 2010) with its focus on e.g. technological aspect, but was also adjusted and developed during the study. Therefore, the factors chosen can vary depending on market. We suggest that the framework in a future study is developed before investigating the case study market. An implication of the choice of developing the framework during the study, is that the banana market is potentially put forth to be more path dependent than it actually is. It would be of interest to investigate further, if the categories relevant to investigate differ depending on market, and how? Also, if there is another angle that need to complement the presented framework.

Another area to develop within the approach regards the stage of prioritizing strategies. It would be of interest to develop and include additional aspects when prioritizing as well as a quantitative prioritizing
system to increase the application handiness. Future studies can also delve deeper into and focus on the comparison between current and historical operations to trace the source of path dependency even further.

The ambiguity of the path dependency concept also constitutes a potential area for future research. It would be highly useful with a system that could distinguish strongly path dependent aspects from those that are softer, correspondingly with the discussion of formal and informal institutions. If a collective definition could be agreed upon, the concept and approach would have greater applicability.

One drawback of using this method is that it is time-consuming since it requires the extra dimension of analyzing the market from a path dependency point of view and to delve deep in different matters with the potential to not find new opportunities. A suggestion for future research is to investigate if this approach of finding business opportunities can be generalized into a specific business opportunity or entry mode. In this thesis, the path dependency perspective was used only in the pre-phase of a market entry to identify business opportunities in overall; future research regarding this perspective needs to evaluate the implementation of the strategy. The use of the approach cannot be fully evaluated until a market entry strategy has been performed according to the recommendations, which will reveal if the industry really was path dependent and if targeting these aspects really has an effect. This is one of the most important aspects to further investigate – was the market path dependent according to the pre-study findings and what effects did the path dependency approach have on the market as well as on the entering company? With that said, we hope to have sparked an interest for a new perspective on market entry that can be of use in future research.
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8 Appendix

8.1 Appendix A - Interview Questions

The questions were prepared before interviews. Not all questions were asked in all interviews and additional questions were added during the semi-structured interviews. At the fruit fair Fruit Logistica in Germany, growers and exporters, along with TNCs were focused on to interview due to the geographical distance to growers and exporters and the importance to interview TNCs.

Fruit Logistica & phone/e-mail interviews

These questions were used for initial phone and email interviews in January/February 2013, as well as during the expo Fruit Logistica in Berlin, February the 6th, 2013.

- Growing and export
  - Does the company own any farms?
  - How are the bananas transported from the farms to the ports?
  - Is transportation and packing outsourced or does the company have full ownership over the procedure?
  - What ports does the company export bananas from?
  - Are bananas stored at the port or are they directly loaded onto the ships?
    - If stored: how are they stored? For how long?
  - Are there any financial figures that are public about costs
    - associated with buying bananas from the farms (i.e. annual cost for a certain number of boxes purchased from growers)?
    - for transportation, packaging and storing before shipping?
  - When does your company take "ownership" of the bananas, i.e. what parts do you run yourself and what is outsourced?

- Transportation:
  - What type of transportation is used?
  - Has there been any change to the transporting method?
  - How do you think this is going to look differently in the future?
  - Does the company own their own fleet, lease or outsource?
  - How are the banana boxes transported? In containers or in refrigerated vessels on pallets? Other?
  - Are the boxes ever moved, i.e. turned around to e.g. increase air circulation?
  - What routes do the vessels take?
  - What is the cost of transportation? I.e. one ship from country A to B with x kg bananas?
  - It technical equipment used for controlling the climate?

- Import & Ripening:
  - What ports does the company import the bananas to?
  - Does the company own all ripening facilities or are there any collaborations with other companies?
  - Do other companies outsource ripening to your company?
  - Are the boxes during ripening ever moved (turned around)?
  - Is the circulation of air changed during the ripening process?
• When does the company ”sell” the bananas to your customer? I.e. do they collect the bananas at the ripening station or does your company transport them?

• Boxes
  • Does the company use one type of box? Many different ones?
  • Is there a reason for the box design? How? Why?
  • Is there a reason to why bananas usually are packed like an “upside-down U”?
  • For your most frequently used box:
    o Price?
    o Material?
    o Weight of bananas per box?
    o Where do you purchase them? (Geographically and producer)
    o Size and weight of the box?
  • Are there any common problems with the box?
  • Do you have any partners when it comes to new box solutions? Climate control?

• General questions
  • Where do you think most waste occurs? What is the primary reason?
  • How big is your business in 1) sales in tons bananas/year 2) turnover banana section?
  • What do you think is the greatest challenge for the banana business? Now/future?

Interviews with retail

Randomly picked stores, each representing a retail chain, was interviewed in March.

• Logistics
  • Who is responsible for transport from the ripening facilities to the stores?

• Quality and waste
  • How much waste of bananas would you estimate that you have in your business?
  • Does the retail chain work centrally to reduce waste?
  • Is there a policy for handling bananas for the employees in the retail stores?
  • Do you work with other actors in the value chain to reduce waste?
  • How is reclamation done? Who pays the cost for destroyed bananas in the end?

• Boxes
  • Is there demand for boxes that could be placed directly in the retail stores?

Import and ripening

Interviews with companies handling import and ripening, both on e-mail and phone.

• The business
  • How many boxes bananas do you import each year? Does it vary by season?
  • How does your company work differently compared to competitors?
  • Do you have any partnerships? How do they look like?
  • Does the large TNCs outsource their import and ripening to your business?
  • Which are the main harbors your business operates in?
• Do you export to other countries? How does that work?
• Do you use techniques to log temperature, level of oxygen, humidity to reach optimal conditions for transporting bananas?
• Do you own all ripening centers the company uses?
  o If not: How does the competition work?
• How does the banana industry differ from other fruit industries?
• Do you distribute the bananas to retail?
  o Where?
• What are the main challenges when importing bananas?
• How could the banana industry improve? Boxes?

  o Waste
  • How much waste of bananas would you estimate that you have in your business?
    o What is the reason for waste?
    o Do you see any opportunities to reduce waste?
  • Who has the responsibility for the bananas in the importing phase in the supply chain?

Ripening

_A longer interview was held with a ripening company, here are some of the questions used._

• How does the air circulation travel?
• Is there a constant flow of warm air and ethylene or is does it vary? When is warm air and ethylene mixed?
• Pressurized and non-pressurized ripening rooms - what are the differences? Trends?
• Is it difficult to change the air-circulation? Why?
• How is the box design important when ripening?
• Is it difficult to change the design on the boxes from a ripening perspective? Why?
• How are the boxes placed in the ripening rooms? How many boxes/room? How many boxes/stock? Boxes/pallet?
• Let's discuss the plastic and its purpose. Is the plastic cut off on each box when bananas used? All holes? Do you have to remove the box from the pallets before cutting off the plastic? What happens if a hole is forgot to cut open? Waste? How much?
• How important are the holes for the air circulation? Are they possible to move? What are the consequences?

TNC

_These questions were used in a longer interview with TNC, here are some of the questions used._

  o Box Innovation
    • Would it be of interest to use boxes with reduced weight? Is it something that the company are researching in?
    • How significant is the composition of the paper? Is it possible to change and is that something that you are doing?
    • How prioritized is the box? What other important questions are you working with that are higher prioritized than the box?
• Could you tell us more about the plastic bag surrounding the bananas in the box – about material, functions, how it is packed etc.
• How would you describe an optimal banana box?
• Do you think that telescopic boxes will be used in the future? Do you believe in a shift towards plastic crates? Threat/opportunity?
• In what direction is the development leaning towards when it comes to design of boxes, price, other factors?
• What would it be worth if it was possible to reduce the weight of the box?
• Do you work with innovations of boxes in-house? Do you have a box laboratory and your own engineers?

○ Organization
  • Could you describe the purchasing process of boxes?
  • Who in the organization is responsible for the box specification? TNC or outsourced growers?
  • Who makes the decisions about box specifications?

○ Other
  • Could you tell us more about your business in Ecuador? Is it different from other growing countries? How?
  • How are bananas packed during sea transport? Pallets/containers?
  • How are bananas quality controlled once they arrive in the harbor?
  • Who pays for reclamations and waste?
  • What main harbors are used in Europe?
  • What would you say is the greatest challenge in the industry?

The Subsidiary
These questions were posed to all six employees in the subsidiary during separate interviews in March 2013.

○ Human Capital
  • Could you please describe your previous work experience?
  • What would you say is your primary area of competence?
  • How would you describe the typical co-worker at the subsidiary? (Characteristics, background, knowledge-wise etc.)
  • Could you describe the company culture at the subsidiary?
  • What do you believe is the employee’s key competences at the subsidiary to create sustainable profitability?

○ Technology
  • Could you describe how/why the concept is unique?
  • Do you think a competitor could copy the concept? How? To what extent?
  • How does the solution improve the customers’ operations?
  • Which are the main substitutes to the product/concept?

○ Network
  • What types of players do you have in your current network? What they do, size, what type of organization?
  • Where are your partners located geographically? (Countries or continents)
Customers
- What kind of players are currently your customers? (what they do; size – small, medium, large; geographical location)
- How do you sell the concept?
- What are the most important factors that you emphasize when selling the concept? (the punchline)

The parent company
- What do you believe is the primary advantage to be a subsidiary to a large company?
- What resources are the most important to the subsidiary? (Material patent, financing, knowledge)
- How does the parent company’s network affect or contribute to how the subsidiary develops?
- How important do you believe the parent company’s brand is when the subsidiary promotes itself?

Capital
- Do you get support from the corporate group? How?
- How does financing work between the parent company and the subsidiary? Are there any other investors?
- Do you think it would be possible to realize the same concept without a large corporate group that can back the subsidiary up?

Competition
- Who do you think is the subsidiary’s main competitors?
- How does the subsidiary differentiate itself from them?
- What key competences would you say that the subsidiary has that are better than its competitors?
8.2 Appendix B - Cost-split Calculations

Below calculations for the cost-split chapter is presented.

<table>
<thead>
<tr>
<th>Country</th>
<th>Import Price [$/kg]</th>
<th>Increase(^1) [%]</th>
<th>Wholesale Price [$/kg]</th>
<th>Increase(^2) [%]</th>
<th>Retail Price [$/kg]</th>
<th>Supplemental Charge [%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>France</td>
<td>0.835</td>
<td>41</td>
<td>1.18</td>
<td>84</td>
<td>2.17</td>
<td>62</td>
</tr>
<tr>
<td>Japan</td>
<td>0.779</td>
<td>100</td>
<td>1.56</td>
<td>62</td>
<td>2.52</td>
<td>69</td>
</tr>
<tr>
<td>USA</td>
<td>0.868</td>
<td>13</td>
<td>0.98</td>
<td>31</td>
<td>1.28</td>
<td>32</td>
</tr>
<tr>
<td>Poland</td>
<td>0.881</td>
<td>60</td>
<td>1.41</td>
<td>26</td>
<td>1.78</td>
<td>51</td>
</tr>
</tbody>
</table>

Import price (IP), wholesale price (WP) and retail price (RP) are known based on information from FAO (2011).

Calculations

\[
Increase^1[\%] = \frac{WP - IM}{IM}
\]

\[
Increase^2[\%] = \frac{RP - WP}{WP}
\]

\[
Supplemental\ Charge\ [%] = \frac{RP - IP}{IP}
\]

\[
Cost\ split\ growing\ [%] = \frac{cost\ growing}{Current\ RP}
\]

\[
IP\ Intervall\ [%] = \pm \frac{IP_{max} - IP_{min}}{2} = \frac{IP_{max} - IP_{min}}{2}
\]

Currency conversion

Year 2010 \hspace{1cm} 1£ = 1.55 USD (X-rates, 2012a) (average over the calendar year)

Year 2013 \hspace{1cm} 1£ = 1.54 USD (X-Rates, 2012b) (average January – April 8, 2013)

References


8.3 Appendix C - Calculations for Strategy 3

Total amount exported bananas annually: 14.8 million metric tons
Private label: assumed to be 20%

\[
Private \ label \ annually = \text{bananas exported}_{\text{tot}} \times \text{share private label} = 14.8 \times 20\% \approx 3 \text{ mmt}
\]

A private label market consisting of 3 mmt bananas, gives a market volume of 11.8 mmt branded bananas. Market shares are assumed to be constant, i.e. the same as before private label introduced, approximately 15% and that the TNCs are not present on the private label market. The needed acquired private label market share to accomplish TNCs’ economy of scale, given the same costs is:

\[
\text{Market share} = \frac{\text{Branded bananas} \times \text{market share}_{\text{TNC}}}{\text{Private label annually}} = \frac{11.8 \times 0.15}{3} \approx 59\%
\]