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Developing a Market Attractiveness Evaluation Process for a High Tech Agriculture Company

Metropolia University of Applied Sciences

Master's Degree

Degree Programme in Business Informatics

Master's Thesis

21 MAY 2025

Acknowledgments

In the 21st century, developing sustainable food systems stands as one of our most pressing global challenges. I am honored to have contributed to research aimed at enhancing business models for modern, high-tech agricultural enterprises.

I am deeply grateful to my industry colleagues, friends, and especially the pioneering innovators in controlled environment agriculture whose support enriched my work. The depth and duration of our conversations reflect your unwavering passion and commitment to building a better global food system. I hope this work serves as a valuable resource for agricultural entrepreneurs striving to make a global impact.

I extend my sincere thanks to **Metropolia University of Applied Sciences** and the Business Administration community for an exceptional learning experience. I am especially thankful for the invaluable support of my supervisor, **Kevin McIntire**, and the insightful guidance of **Zinaida Grabovskaia**, **Jimmy Ruokolainen**, and **Antti Hovi**. Our many discussions greatly informed my thesis, improved my communication skills, and deepened my understanding of applied action research.

Finally, to my family - thank you for your unwavering patience and encouragement throughout my MBA journey. Your support made this achievement possible, and I'm forever grateful for your belief in me.



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21 May 2025

Abstract

Author: Kasey Snyder
Title: Developing a Market Attractiveness Evaluation Process for a High Tech Agriculture Company
Number of Pages: 110 pages + 7 appendices
Date: 21 May 2025

Degree: Master of Business Administration
Degree Programme: Business Informatics

Instructor: Kevin McIntire, Senior Lecturer

The objective of this Master's Thesis is to design a systematic, data driven business process to evaluate regional market attractiveness for entering the fresh produce industry in North America. The case company has successfully designed and operated highly controlled vertical farm technology platforms in Europe. However to expand globally, they need a systematic process for analyzing the attractiveness of international markets. The selection of a suitable international market is a critical step in ensuring their business model will be successful.

The research strategy used in this thesis is applied action research strategy. The research design included the current state analysis, literature review, proposal building, and validation stages. The data was collected through internal document review, online interviews and workshops with key stakeholders in the case company, analysis of internal documents as well as high-tech agriculture industry experts and fresh produce retail experts.

In the current state analysis, the three identified weaknesses in the current market assessment process were: lack of internationalization strategy, lack of in-depth market intelligence, and lack of strategic partnerships with high trust. The theoretical framework review focused on the topics of internationalization strategy, tools for listing, weighting and ranking key criteria, and an approach to relationship development. The final proposal is based on two simultaneous processes for regional market assessment and the frameworks to complete each stage or phase of the processes. The proposal was validated during an online presentation to the case company CEO and Chairman of the Board.

This Master's Thesis revealed the underlying challenges in the case company's current regional market assessment process. These challenges are common to small and medium sized born global companies which require production facilities in their new international target market. The proposed dual process for assessing regional market attractiveness enables the case company to perform tasks in line with the clearly communicated internationalization strategy. It also ensures that the market assessment is based on reliable, objective and relevant data. Finally, the optimal market selection will include a region in which the company has developed a social capital through a network of partners and identified strategic alliances based on high trust relationships.

Keywords Internationalization strategy, international market selection, SME market venturing, born global, fast moving consumer goods, high-tech indoor agriculture, Market attractiveness and business attractiveness model (MABA)

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1 Introduction

“Vertical farming is the practice of growing food and/or medicine in vertically stacked layers, vertically inclined surfaces and/or integrated in other structures. The modern idea of vertical farming uses Controlled Environment Agriculture (CEA) technology, where all environmental factors can be controlled. These facilities utilize artificial control of light, environmental control (humidity, temperature, gases,..) and fertigation.” (Association for Vertical Farming e.V., 2023). Vertical agriculture has great potential to meet the future food demand by strengthening the digital farming system to support precision in agriculture with technology and AI. (Siregar et al).

According to the USDA Economic Research Service, “Imports play a vital and increasingly important role in ensuring that fresh fruits and vegetables are available year-round in the United States.” (U.S. Department of Agriculture, USDA-Economic Research Service, ERS, 2023). “What factors explain the substantial increase in fresh fruit and vegetable imports? Previous studies have identified four likely reasons: (a) climate/weather, (b) labor costs, (c) trade agreements, and (d) subsidies to infrastructure or production.” (Khanal and Gopinath, p.544-574) Vertical farming is one solution to increase domestic food production and food security in the United States. “Vertical farming offers numerous potential benefits, including more efficient uses of space, reduced water usage, shorter growing times, reduced need for pesticides/herbicides, and shelter from extreme weather.” (Oh and Lu, p.133-140). Vertical farming enables hyper-localized production and provides nutritious foods year round.

1.1 Business Context

The case company for this Thesis is an agrotechnology company in Europe, which utilizes automation and data analytics to operate a highly controlled vertical farm technology platform. They have successfully built and operated farms in Europe, and are eager to expand operations to North America. They lack a reliable formula for accessing the attractiveness of regional markets in their target countries. They do not have a clear process for examining new business opportunities and for selecting the next location to expand their vertical farm operations to. “The vertical farm’s success will depend on

technological innovation and the effective organizational structure that connects through effective business models.” (Biancone, 2022, p.2240).

1.2 Business Challenge, Objective and Outcome

The case company aspires to transition to a new business model as a fresh produce supply chain solution for grocery retailers. To do this, they wish to operate in large scale, high growth foreign markets such as the United States and Canada. They will build vertical farm production facilities in North America to grow and sell fresh produce to domestic buyers. The existing business challenge is to determine which region within North America to select for new market entry. The opportunity is to create an evaluation process that does not exclude any potential markets, is based on data-driven indicators, and builds upon current or developing networks.

The Objective of this thesis is *to create a systematic, data driven business process to evaluate regional market attractiveness* for entering the fresh produce industry in North America.

The Outcome of the thesis is *a systematic, data driven business process to evaluate regional market attractiveness* for entering the fresh produce industry in North America.

1.3 Thesis Outline

The scope of this thesis is the retail fresh produce industry in North America and possible methods to evaluate regional market attractiveness which are systematic and data driven. Further, the outcome solution applies only to high-tech agriculture companies established outside of the target country. The goal of the case company is to establish both production facilities and distribution channels within the target country.

The method used to study the business challenge of the case company is external and internal interviews with key stakeholders and analysis of internal documents. The study begins with a current state analysis of the case company’s market selection process. The outcome of the current state analysis is the strengths and weaknesses of the case company’s current process. From there, a literature review is performed and best practices for evaluating market attractiveness are identified. A co-creation process is

used to develop a proposal for improving the case company's current process. The study concludes with the validation of the proposal.

2 Method and Material

This section describes the research approach, research design, data collection, and analysis methods used in this Thesis.

2.1 Research Approach

“Business researchers systematically collect, compile, analyze, and interpret data to provide quality information based on which a decision maker will be able to take a decision in an optimum manner.” (Bajpai, 2018) “Business research seeks to predict and explain phenomena that, taken together, constitute the ever-changing business environment.” (Hair, 2023) There are a variety of widely accepted elements which guide reliable business research such as research families and research methods.

Business research is typically characterized as basic research or applied research. “Basic research is generally not related to a specific problem and its findings cannot be immediately applied.” (Bajpai, 2018) It is “motivated by a desire to better understand some business phenomenon as it applies to an entire industry or to business in general” (Hair, 2023) Applied research, on the other hand, “is motivated by an attempt to solve a particular problem faced by a particular organization.” (Hair, 2023) In both cases, “the researcher adopts a systematic and scientific procedure to conduct the research.” (Bajpai, 2018)

“All researches can be broadly classified into three groups: exploratory research, descriptive research, and causal research.” (Bajpai, 2018) Exploratory research is used to uncover relevant variables and insights about a general problem. It is not conclusive and typically requires further study. Descriptive research looks to determine characteristics of a business or market. There is a clear problem, hypothesis, and process for collecting data. Causal research is used to determine the cause and effect relationship between two variables. It is well structured and can be used to make predictions. (Hair, 2023)

Setting a research design provides the basic structure for carrying out the research of a study. The research design should be efficient and provide reliable, relevant information. The research design may include a variety of data collection methods. Secondary data

is “data used for research that was not gathered directly and purposefully for the project under consideration.” (Hair, 2023) “Sources of secondary data include the researcher’s company, various external agencies such as data-collection companies, municipal or other governmental agencies, nongovernment organizations (NGO’s), trade or consumer associations, the Internet, and various social media platforms” (Hair, 2023) “When research objectives cannot be achieved using secondary data primary data must be collected.” (Hair, 2023) Primary research methods include interviews, observations, and surveys. Primary research includes the collection of qualitative or quantitative data, or a mix of both. “Qualitative research is discovery oriented, with analysts using the data collected to generate ideas and theories, and it is therefore based on inductive reasoning.” (Hair, 2023) On the other hand, “quantitative data are measurements in which numbers are used to directly represent the properties of phenomena. To be useful, the data needs to be analyzed and interpreted.” (Hair, 2023)

In this study, the applied action research strategy is used to address the case company’s challenges with their current market attractiveness evaluation process and to propose improvements. This approach combines analysis of the current state with research on modern, systematic best practices. It provides a practical solution for the case company’s problem which can be realistically implemented. Data is collected through interviews with key stakeholders in the case company as well as with consultants in the fields of high-tech indoor agriculture and fresh produce. The result of the data analysis and literature review create a proposal which can be implemented by the case company.

2.2 Research Design

The research design of this thesis follows the 7-gate system approved by Metropolia University of Applied Sciences. Each of the gates is a building block toward the completion of the study. The system is efficient and reinforces the research principles of relevancy and reliability. Gate one begins with the formulation of a challenge, objective and outcome for the thesis which is co-created with the case company. The second gate is the research design and process for data collection. The third gate is the current state analysis, which includes the first data collection process. It results in clear strengths and weakness for the case company and set the scope for the target area for improvement. The fourth gate is the literature review which results in the conceptual framework. The

fifth gate is building proposal building which occurs through collaboration with stakeholders in the second data collection. This results in an initial solution proposal. The sixth and final gate is validation of the final proposal. This occurs through collaboration with the case company's executive leaders and results in a final proposal for the thesis study. Figure 1. represents each stage of the gate process.

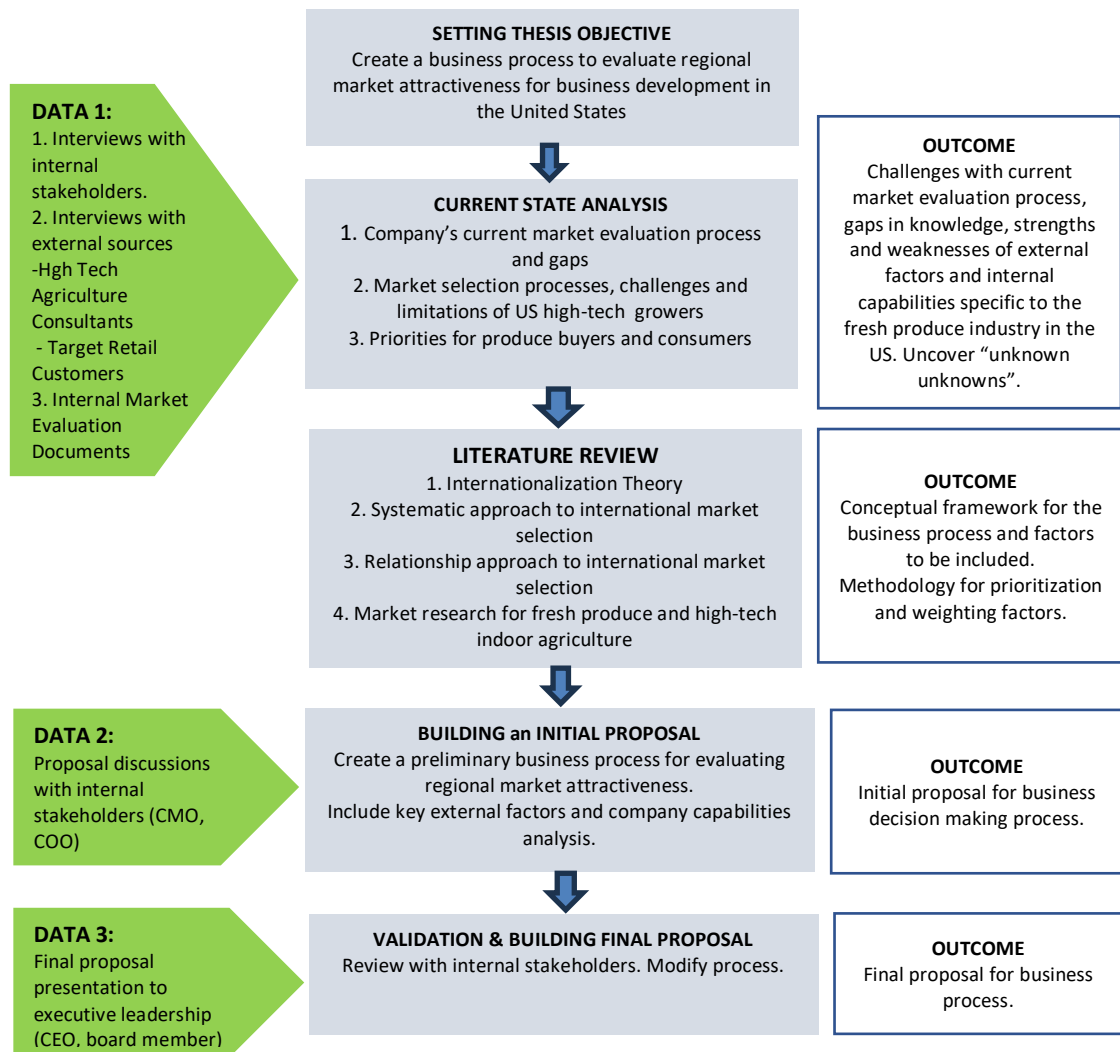


Figure 1. Research design of this thesis.

As seen in Figure 1, the 7-gate system relies on close collaboration with the case company to identify its strengths and weakness in a particular business area and then determine a key challenge to be resolved in this thesis study. Close collaboration continues throughout the process until a proposal is created that meets the objectives of the study and provides a solution for the case company's challenge. In addition to the

key stakeholders of the case company, external industry consultants are consulted during the first data collection. Consultants from domestic US high-tech indoor ag companies provide insights on challenges shared by all disruptive companies and highlighted those that are unique to the case company. Consultants from North American fresh produce distribution channels provide the “customer voice”.

In the second data collection, stakeholders from the case company were presented with insights from the first data collection as well as best practices discovered during the literature review. Together, a proposal was created that may be suitable to addresses the challenge provided in gate one. The third and final data collection occurred through an interview with the CEO and Head of the Board of Directors at the case company. After review of the proposal and discussion of small modifications, a final proposal was created.

2.3 Data Collection and Analysis

This study draws from several data sources. The data was collected in three rounds: Data 1 for Current State Analysis, Data 2 for proposal building, and Data 3 for proposal validation. Table 1 shows the data collection processes.

Table 1. Details of Data Collections 1 – 3 used in this study.

Participant Role	Data Type	Topic, Description	Date, Length	Documented As
Data Set 1: Current State Analysis				
Company Interviews (Internal Sources)				
CEO	Semi-Structured Interview	The company's process for accessing external market factors in international markets.	30 April 2024, 50 minutes	Recording and Field Notes
CFO	Semi-Structured Interview		17 April 2024, 50 minutes	Recording and Field Notes
COO	Semi-Structured Interview		17 April 2024, 63 minutes	Recording and Field Notes
Head of Marketing	Semi-Structured Interview	The company's internal capabilities and limitations. The company's knowledge about the retail buying process and customer awareness.	18 April 2024, 65 minutes	Recording and Field Notes
High-Tech Agriculture Growers Based in the United States (External Sources)				
Company #1 – Executive Director and COO	Semi-Structured Interview	Process for accessing external market factors in international markets.	30 April 2024, 52 minutes	Recording and Field Notes
Consultant #1 – Former CMO	Semi-Structured Interview		6 May 2024, 35 minutes	Recording and Field Notes

Consultant #2 – Former Horticulturist and COO	Semi-Structured Interview	Typical internal capabilities and limitations for high- tech agriculture companies. The retail buying process and customer awareness.	13 May 2024, 51 minutes and	Recording and Field Notes
			15 May 2024, 26 minutes	
Consultant #3 – Former CFO/ CXO	Semi-Structured Interview		20 May 2024, 40 minutes	Recording and Field Notes
	Internal Documents	The company's current business model and process for capturing market attractiveness data		
Retail Buyers Based in North America (External Sources)				
Retailer #1 - CIO	Semi-Structured Interview	Retail buyers perception of high- tech agriculture growers and produce.	9 May 2024, 56 minutes	Recording and Field Notes
Retailer #2 – Fresh Produce Buyer	Semi-Structured Interview	Consumer perception and collaboration between buyers and growers. Buyer priorities for fresh produce.	21 May 2024, 36 minutes	Recording and Field Notes
Data Set 2: Proposal Building				
Internal Interview with company stakeholders	Online Group Interview	Summary of data collection and literature review. Proposal development guidance.	19 September 2024, 1 hours and 19 minutes	Recording and Field Notes
Data Set 3: Proposal Presentation for Validation				
Presentation to the CEO and Board Chair	Online Group Meeting	Validation of the proposal.	12 March 2025 1 hour and 7 minutes	Recording and Field Notes

The first data collection for the current state analysis included in-depth interviews with relevant stakeholders within the company. It also included in-depth interviews with external sources. Some of these sources were executives from other high-tech agriculture companies in the target market. Others were retail buyers in the target market. All interviews were conducted online with open-ended questions. All interviews were documented through recording, transcripts and field notes. The interview questions can be found in Appendix 4. The data collection focused on three key themes from many different perspectives: 1) what is the process for accessing external market factors in the fresh produce industry in North America? 2) what are the important capabilities of a high-tech agriculture companies and what limitations are cause for concern? 3) what is the retail buying process of fresh produce and what is the consumer perception of produce grown by high tech agriculture companies? There are two outcomes of this step. The first outcome is a clear visualization of the case company's current market assessment

process. The second outcome is the strengths and weaknesses of the case company's ability to enter a new market in North America.

The internal documents collected during the first data collection consisted of documents explaining the current business model of the company. Also included are spreadsheets of external market data. These spreadsheet summaries can be found in Appendix 1, 2, and 3.

The second data collection consisted of a group interview with two key stakeholders of the company. Both are shareholders with a wealth of experience on the topic and trusted advisors of the CEO.

The third data collection took place with the CEO of the company. The initial proposal was validated through feedback received from the CEO.

All textual data collected in the three data collection stages was analyzed using Thematic Analysis. The CSA revealed the case company's need for a systematic, data driven business process to evaluate regional market attractiveness for entering the fresh produce industry in the United States. Findings from the current state analysis are discussed in Section 3.

3 Current State Analysis of the Global Market Selection Process for the Case Company

This section discusses the current state of the global market selection process of the high tech agrotechnology case company and the subsequent processes used to assess regional market attractiveness. It examines the goals of the process, the rationale behind the goals, and the current practices to support those goals.

3.1 Overview of the Current State Analysis

The current state analysis was conducted in five steps from April to June 2024. For the internal perspective, leaders of the case company were interviewed – CEO, COO, CFO and Head of Marketing. High tech agriculture consultants and fresh produce leaders at retail grocery outlets were interviewed for a broader perspective on the current state of market entry processes for high tech agriculture companies,. The interviews were analyzed along with internal global market selection documents.

The first step was an interview with the COO of the case company, who is responsible for implementing the global market entry strategy. During this interview, the COO provided insights on his understanding of the global market selection process, the tasks being completed as he understood them, and also his opinion on whether these steps had been useful in achieving the global market entry strategy goals. The second step was to review internal documents which provided the results of the tasks completed in the global market selection process. Together, the outcomes of these two steps is the process map of current practices.

The second step was a series of three interviews with leaders of the case company who were not directly responsible for the global market selection process, but who were involved with developing the global market entry strategy. The purpose of these interviews was to gain additional insights into the goals of the global market entry strategy, why they were selected and if the global market selection process was useful in achieving the stated goals. The interviews were semi structured and conducted individually to allow for open dialogue on the topic. The analysis of these interviews provided insights on the strengths and weaknesses of the global market selection process.

The third step was a series of four interviews with high tech agriculture consultants. Each interview was semi structured and conducted individually through an online platform. The purpose of these interviews was to consider the market entry strategy and market selection process for similar domestic companies in the target North American market region. The outcome of the analysis was common strengths and weakness of high tech agriculture companies in the target market. The analysis also provided insights on differences between the case company's market entry strategy and those of similar high tech agriculture companies in the target market.

The fourth step was interviews with two target retail customers for the case company. The purpose of these interviews was to assess the needs of the target customers and how high tech agriculture companies address those needs when entering the target market. The interviews were semi structured and conducted individually through an online platform. The outcome of these interviews provided insights on how the case company's strengths and weaknesses aligned with the interests of their target business customers.

The fifth and final step was to summarize the key findings from the current state analysis and present an analysis of the current regional market attractiveness evaluation process for North America as well as the strengths and weaknesses of the case company. The conclusions drawn from the analysis are organized in a revised process map as well as a chart of strengths and weaknesses. In the final step, the focus area for regional market attractiveness evaluation process improvement was identified.

3.2 Description of the Case Company Background

This section provides an overview of the current market attractiveness evaluation process used by the case company. First is an explanation of the transition from a technology sales business model to fresh produce sales model. Second is an overview of the current steps in the market evaluation process.

3.2.1 Current Business Model

The current market selection process was implemented in January 2023. Prior to then, the case company's business model had been to sell their vertical farm technology platform and maintenance subscriptions to buyers who then operated the farms and grew their own produce. The business model pivot came after the board of directors and leadership team deemed the model unfeasible. In the previous business model, the case company had proposed entering new global markets through direct export of their vertical farm technology. The case company managed the global marketing effort and attracted foreign B2B customers. In this way, the case company envisioned itself as born global, which "from their inception pursue a vision of becoming global and globalizes rapidly without any preceding long-term domestic or internationalization period." (Gabrielsson and Kirpalani, 2004, p.557) The case company sold its first commercial scale vertical farm system to a foreign customer in the Nordics without prior domestic large scale sales. This sales success did not prove to be repeatable in the following year despite many inbound inquiries. With guidance from a consultant, the leadership team was advised that their vertical farm system may be too complex and cost prohibitive for a single customer to invest in. Additionally they were advised that in order to receive substantial investment, they would require a business model with recurring revenue.

The new business model calls for the organization to utilize an intermediary entry mode and create an equity joint venture. This joint venture is called a Farm Holding Company and will be established in the region where fresh produce sales activity will take place. Based on interest from investors and the leadership team, North America was selected as the first global market target for the new business model. The target partner for the equity joint venture was not expected to complement upstream processes such as R&D or operations, but it would be desirable if they could expedite market entry through sales and marketing. Figure 2. provides a diagram of the new business model.

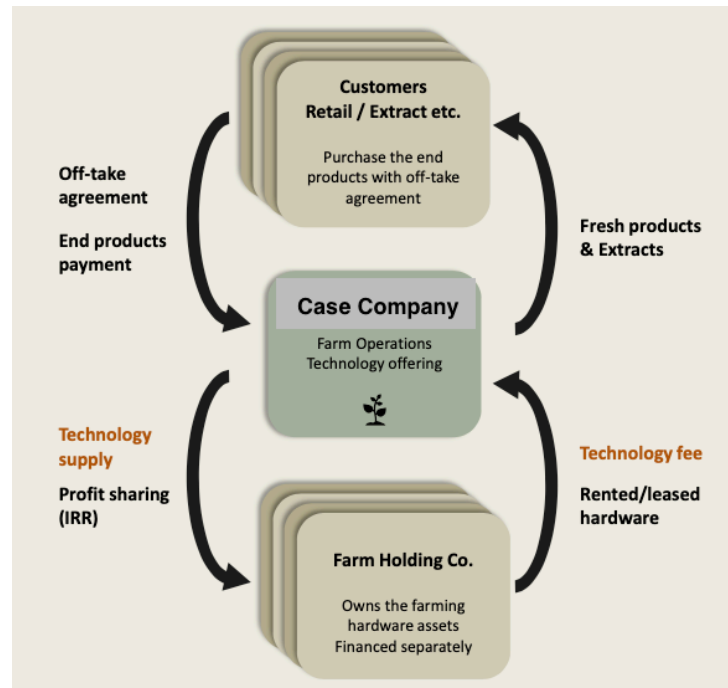


Figure 2. Case company's business model

To identify an ideal market within North America, the case company created a process to analyze market attractiveness and location options to build the industrial scale vertical farm. The location would need to be cost effective and provide access to a sufficient number of sales within a 500 miles distribution radius. The Chief Operating Officer (COO) was responsible for this process with support from the Head of Marketing and other staff. The CEO, Board of Directors and Investors were ultimately responsible for approving the final decisions of the process. The end goal of the process was to identify an ideal fresh produce retail market in North America to establish a vertical farm and attract an investor to begin a joint venture.

3.2.2 Current Market Selection Process for the United States

The steps in the case company's current market attractiveness assessment process are presented in Figure 3.

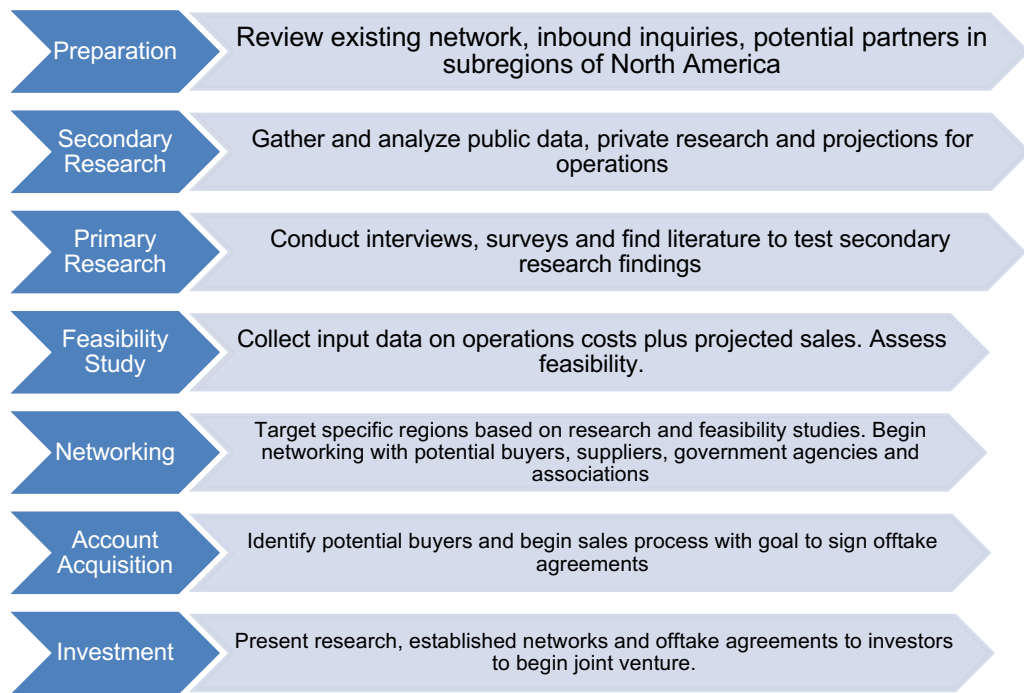


Figure 3. Current Market Selection Process

First, the United States and Canada were divided into sub-regions based on common practices (Eastern Canada, Central Canada, Western Canada, Northeastern US, Southeastern US, Midwestern US, Southern US, Northwestern US, Western US). The regions were ranked based on existing knowledge of contacts, inbound inquiries and potential partners. From there, market research was conducted to assess the current state of the markets and market potential. Secondary market research was acquired from various external public and private sources. This provided general information such as market size, market growth, prices, competition, and buying structure. This data was compiled in a spreadsheet which ranked each region based on various factors.

Next, primary market research was conducted. Surveys were sent to potential buyers in each region to assess interest in vertical farm grown produce. Interviews were conducted virtually. The next step was to gather data on average input costs and expected sales prices for each region. This data was put into a patent protected feasibility assessment, which calculated the feasibility of operating the vertical farm in that region at various scales. The feasibility study was conducted with support from engineers and horticulturists at the case company.

If a region was deemed attractive, then the very personalized task of networking began. The case company joined associations and attended events relevant to those regions. Introductions were made to potential buyers, suppliers, and government agencies in those regions. The purpose of this activity was to build brand awareness and identify key players who could be helpful in developing a business plan. Once potential buyers were identified, the sales process began. This included sales pitch and presentation, negotiations and finally the goal of a signed offtake agreement. With the offtake agreement in place, the leadership team could then solicit investors for the new joint venture.

One year after implementing the new global market selection process, the case company was unable to secure investment in a new joint venture. The project was put on pause to restructure financial obligations and to reconsider the internationalization plans. Based on internal discussions with the leadership team, a final market and manufacturing site location for global expansion was not selected.

3.3 Analysis of the Global Market Selection Process (internal perspective)

To understand the internal perspective of the global market selection process, four leadership team members were interviewed in April 2024. The COO was chosen to be interviewed because of the direct responsibility for overseeing the global market selection process. The former Head of Marketing was chosen because of responsibility for a portion of the global market selection process tasks, and would ultimately be responsible for coordinating and implementing the International Marketing Program. The CFO was chosen for having direct insight but no direct influence on the global market selection process. The CEO was chosen for having final decision making power and for ultimately guiding the internationalization strategy agreed to with the board of directors. All were part of the company's transition to the new business model, driven by fresh produce sales.

All interviews were conducted via online meeting platforms, recorded and transcribed for later review. The purpose of the interviews was to learn about the global market selection process from multiple perspectives. The goal was to learn how the process was developed, what influenced the process, how decisions were made, and what the

strengths and weaknesses of the process were. From these interviews, recurring concerns and frustrations were revealed, as well as agreed upon capabilities of the company.

The interviews were divided into three sections. First was a series of open ended questions about the global market selection process itself. Questions included “what was the approach to market selection” and “how did you assess market size and growth potential”. These questions provided tactical insights into the steps taken in the global market selection process. The second section was a series of open ended questions about the internal capabilities of the company. Questions included “how do you perceive the company’s inbound logistics abilities” and “how do you perceive the company’s communication with stakeholders”. These questions provided insights on the strengths and weaknesses of the company’s internal capabilities. The third section was a series of open ended questions surrounding their perceptions of the market requirements. Questions included “how important do you feel product packaging is to your target retail buyer” and “how important do you feel supply chain management is to you target retail buyer”. These questions provided insights into how the leadership team perceived the needs of their potential retail buyer.

3.3.1 Current Process Evaluation by the Leadership Team

From all interviews, the decision to focus internationalization efforts in North America seemed to be made between the CEO and the board of directors, and disseminated to the rest of the team. Some leadership team members felt that the decision was based on many rounds of discussions but not enough market research. One interviewee said “there were no real possibilities to focus on market research at that point of time, as much as it would have been good.”. Others felt that resources were still being allotted to other countries despite the decision. This may be because contracts had previously been signed and could not be broken, or because there was not a high level of confidence in the country selection. Either way, it seems that resources were being divided. One interviewee commented, “instead of concentrating forcefully towards a single big market, we were still attending exhibitions and entertaining conversations in other regions.”.

There was also consensus from all leadership team interviewees that there were too many tasks to be accomplished in the internationalization process and not enough

resources. One interviewee said, “There were many questions and I didn’t feel certain that we had everything covered at any point.” The interviewee continued, “It was very unclear if we have enough information about the different aspects that we would need to take into consideration. Starting from, like law, legislation, countrywide and the state level regulations and then going forward to all the tax questions and all the little details.” Another interviewee stated, “To be honest, we never had a good understanding (of market intelligence). Not as we would have liked to have had. It’s just pretty obvious. We would have liked to have such good market intelligence that we could have made a three year expansion plan.”. Another interviewee said, “We were gathering information in a very time consuming way. Trial and error. Let’s see who bites. We never bought market data or spent money instead of time and energy.”.

One interviewee pointed directly at the structure of the board and investors as a challenge to international growth. “We don’t have a single big owner that has vested interest to actually grow the company aggressively or even moderately by putting more money in and working closely with the executive team. That is very problematic for us.” The interviewee went on to say, “I think that it has been very difficult to actually get an investor that would be in that position. To actually get an investor from abroad who would meet our needs, that would require our active presence in a specific country. Speaking about US based companies, it is much easier there. They do have these types of investors, so even if you have crappy technology, it is still way easier to get proper finance and support.” Regarding the relationship between the Board of Directors and the leadership team, another interviewee commented, “I am not sure how well all the information that was gathered from the US markets was ever translated to the board and if they had a clear overall understanding of the potential of each market. It felt like the focus changed a lot and sometimes it felt like it was based on what possible investors were looking for.”

Despite the perceived lack of sufficient funding and board support, the case company did move forward with the global market selection process. One interviewee explained that the process started with the existing network of contacts. The leadership team considered from which regions in North America inbound inquires had come from. They also considered where they had received the most positive interest from outbound prospecting efforts. This interviewee stated, “I think what we were aiming at was that we find some so-called anchor customers (national retail chain) partners where we could

like actually focus our operation and tune our product production and so forth. And then the excess volume would go wherever we can basically offload it. You know whether it's (wholesale) or whatever, just, you know, sell as much as we can.”

Following the initial assessment, the leadership team looked for a more scientific approach to market analysis. One interviewee stated, “There was a greater focus on the operations side and less on the market side. We looked at logistics, distribution centers, employment, taxes and utilities in various regions.” This information was compiled into a single spreadsheet and map. The regions were ranked by attractiveness of each characteristic. Most information was accessible from public records, government organizations and regional real estate firms.

The focus then shifted to the market side and potential sales channel partners. As one interviewee put it, “We started an organized way of collecting data to gain understanding of the markets. How does the industry work? We’ve done this (fresh produce sales) in Europe but not in United States. How are decisions made? What are the biggest players? What products sell the best? What do we need to know about pricing, packaging, branding, promotions? We started participating in events and building one on one relationships with people.” The interviewee went on to say, “We were trying to be smart with the resources we had. I think we knew what information we needed, but we didn’t have all of the bodies and money to get the information.” On the topic of market entry, another interviewee said, “The highest barrier to entry was how to build relationships and get a seat at the table? How do you build relationships with buyers in an industry that is already so well established and a market that is so saturated? How do you get a place at the right tables to actually start discussions? We started making good progress, but we need ten or twenty of those good relationships at least.”

To summarize the shared feelings of the interviewees, there was a perceived lack of strategy and support from the highest levels of the organization as well as resources to investigate internationalization options. Most wanted greater support internally or wished to see a change in the board to incorporate members with greater experience in this area. They were also open to working with consultants who had experience in international fast moving consumer goods and fresh produce. One interviewee said, “The actual problem is that it has been difficult to find the market fit for our new technology. Nobody has the answers for you. You just try and see what works and what doesn’t. It

also creates problems at the operational level. It has been impossible to plan ahead. We have always been reacting to situations and trying to find the correct approach, but we have been lacking a clear plan of how to move forward. That is a question of high level strategy.” Regarding the level of technology innovation, another interviewee said, “We were always certain that the technology is what it is and it works. This is what the company specializes in. But then, what about the business model? How are we going to make money out of this? Who knows where we are going?”

Table 2 summarizes the key strengths and weaknesses in the global market selection process as identified in the analyses of the case company internal interviews.

Table 2. Strengths and weaknesses of the case company’s global market selection process

Global Market Selection Process	
Strengths	Weaknesses
Technology Capabilities Operations	Internationalization Strategy Stakeholder Communication Global Business Model United States Market Data Market Focus Product Market Fit Resources

3.3.2 Internal Capabilities of the Company

The leadership team interviewees shared similar opinions on the overall internal capabilities of the case company. The areas of shared positive opinions were: technology, research and development, inbound and outbound logistics, operations, and procurement. There is a shared belief that the company has a solid foundation in technology and a clear path towards future development. There is also a shared belief that based the case company has accumulated a high level of skill in daily operations as well as processes before and after the growing process.

There was a shared belief that the company was solidly built upon an innovative and reliable high tech agriculture system. One interviewee said, “I have always had very high

confidence in the technology and the level of innovation. I still have a strong belief that it is very good technology when operated properly.” Another interviewee said, “We have certain advantages like low energy consumption, high automation, and being able to produce a wide variety of different crops at large scale. Of course it is a concern if someone else promises to do the same thing that we do, but I still believe that there aren’t any other companies that can provide the same package that we can. At some point there will be competition, but not yet.”

There were shared agreement as well regarding the future research and development of the technology as well as horticulture. All four interviewees agreed that research and development is the key to the company’s growth. They also agreed that they have a reliable road map for the next few years on how to increase efficiencies and further develop the automated systems. One interviewee stated, “R&D is definitely the key to growth. With the current technology, we can do really nice (horticulture) testing. There are definitely a lot of ideas on how to develop the technology forward.”

Regarding logistics, operations and procurement, there was a shared feeling that much had been learned through combined years of experience in the fresh produce industry. The case company has been directly involved in the industry for many years, and the leadership team members have brought their own expertise in these areas. Combined, they have created processes that are transferable to other markets as well as relationships with international suppliers. One interviewee stated, “I think we have really good knowledge and understanding about this and I think we are fully ready to take the next step (internationally).” Another interviewee said, “I think the skill level is high and fully transferable. We have documented all different kinds of processes. When new people come along, we can train them.” The interview added, “It is well understood based on experience that it is very important for people who will be working at new farm locations to first go through an education period on site with the core team from headquarters. They must go through all important aspects and receive a profound understanding about how the whole process goes and what things affect other things. How to understand the logic of the system.” A third interviewee stated, “We’ve learned a lot and managed to build two (industrial scale) farms and we do have the skills to make the operations successful.”

There were also shared opinions on the weaknesses of the case company. The areas of shared negative opinion were: leadership, business model, market intelligence, market risk assessment, marketing plan, and company culture. The interviewees seemed to compartmentalized the technology and farm operations from the business strategy and leadership. There was a shared opinion that no clear strategy had been disseminated to the team and therefore no focused plan was being executed.

One interview offered this opinion, “It was more like let’s just get this first farm up and running and then see how it is. I guess that’s what a start-up needs to do. It’s still speed to market that is so important.”. This gives the perception that the case company was trying to move quickly without a clear plan in place. Regarding the agreed upon target market, one interviewee responded, “Well, that has been a big problem. For quite a long time it has been unclear what is the profile of the end customer for us. What is the actual product that our company is selling, who is the actual buyer, and who should the marketing be targeting? It is a big question mark. Many different approaches have been tried, and it only now seems that it is becoming more clear.” Another directly stated, “I don’t think that I was super clear on the market entry strategy.”.

The leadership and culture of the case company seemed to have improved over time but likely needed to be reevaluated in order to pursue internationalization. One interviewee said, “Since we have changed the strategy quite significantly, I believe that there are a lot of things that need to be learned. Managing a start-up is quite different than managing an industrial scale production company. We need to mature in the area of management processes and focus. I have been thinking that the whole management and leadership stuff must be reevaluated quite heavily.” Another interviewee stated, “The company had super motivated and super committed people working for us, so that helped smooth over some of the things we were lacking in like leadership skills. The team has always been super analytical and look at numbers, but then again, it’s kind of a contradiction because many big decisions were made without the data to back it up.” A third interviewee said, “I think that what I’m sad about is that (our country) lacks truly strategic thinkers who could help companies to thrive internationally. That is the biggest thing for me. We should have started this process (of internationalization) much sooner than a year ago, but then again, we didn’t have that sort of help from anybody, that could have guided our thinking towards it.”

As previously stated, it was observed that there were not enough personnel or monetary resources to gather market intelligence and to make a clear risk assessment. The types of risk that had not been fully assessed included: seasonality and price volatility, infrastructure and utilities, laws and tax regulations, food safety and health requirements.

Table 3 shows the agreed strengths and weaknesses of the company by the leadership team interviewees.

Table 3. Strengths and weaknesses of the case company's internal capabilities.

Company Capabilities	
Strengths	Weaknesses
Technology	Leadership
Research and Development	Business Model
Inbound/ Outbound Logistics	Market Intelligence
Operations	Market Risk Assessment
Procurement	Marketing Plan
	Company Culture

3.3.3 Perceptions of Market Needs

When asked about their perceptions of the target market and the needs of the buyers, there was a sense of hesitancy from all interviewees. The uncertainty in the answers given was greater than when discussing the internal capabilities of the company. Perhaps this is due in part because there was no single definition of who the target customer was. The areas of strongest agreement was that it is a priority for the B2B retail buyers to be able to rely on the suppliers supply chain management. One repeated comment was, "Delivery timing is critical in fresh produce. It's very important." Another comment mentioned several times was, "The buyer really wants the supplier to fulfill their promises, they don't necessarily care what goes into making that happen."

Other topics that rated as perceived fairly high to high priorities for B2B retail buyers included: product packaging, merchandising, and product range. Packaging was perceived to be significant both from a practical perspective and for sales purposes. One interviewee said, "(one buyer) challenged me a lot about how well we understand

packaging. Do we understand how it impacts shelf life. So I believe no matter how cool the packaging looks, the product needs to ship in a viable way. So yeah, it is a really high priority.” Likewise, there was agreement amongst all interviewees that the supplier is expecting to support the merchandising effort in some capacity. There was also an agreement that it is generally easier for a buyer to work with a supplier who can offer several products (or SKU’s). It creates a stronger relationship between the buyer and the supplier, and allows for more merchandising opportunities.

There was less certainty amongst the interviewees regarding how high or low other attributes should be perceived. There were mixed opinions on the importance of product shelf life, proactive relationships on the part of the supplier, level of influence on the end consumer, amount of data and info sharing, and electronic integration into the store’s systems. These were areas that the interviewees had either not given much thought to or had not received direct information from any buyers.

Table 4 summarizes the high priorities of the customer as perceived by the case company and the priorities they were uncertain how to qualify.

Table 4. The case company’s perceptions of customer priorities

Customer Priorities	
High Priorities	Uncertain
Supply Chain Management Product Packaging Merchandising Product Range	Product Shelf Life Proactive Relationship Influencing the End Consumer Data and Info Sharing Electronic Integration Financial Stability of the Supplier Strategic Alignment

3.4 External Interviews with High Tech Agriculture Consultants

To gather a broader perspective on the current state of market selection processes for high tech agriculture companies in the target region, interviews were conducted with four

consultants who were also former or current executives at high tech agriculture companies. The outcome of the analysis of the interviews provided insights on strengths and weaknesses that were common to all high tech agriculture companies entering the fresh produce market in United States. It also highlighted issues that were specific to the case company. Additionally, the consultants offered recommendations on key focus areas and priorities for the a high tech agriculture company's global market selection process.

3.4.1 Perceptions of North American Market Selection Process

All four high tech agriculture consultants agreed that a thorough PESTLE/ STEM analysis is the first step in the market selection process. Consultant 2 said, "It's right at the outset. That's how you set up your whole strategy in thinking about what is going to be the market opportunity." Consultant 1 said, "We've been spending most of our time looking at consumer behavior, and to that end, what is driving trends behind grocers and retailers." Analysis was recommended at a national level as well as a state or province level. Consultant 4 provided clear examples of the differences between states in the United States, "You can't even get power in California for three to five years, much less have reasonable costs for construction. In Washington State, they require a certified electrician to run land cables. The thing costs an arm and a leg."

All consultants also agreed that having a clear understanding of the target market, market size and growth potential is important at an early stage in the process. Consultant 1 said, "The main goal of our company is to bring food production closer to the consumer. So to that end, it's been near the top of the list in terms of any site selection that we are doing right now. Just looking at the population demographics and how that translates into potential total market dollars for whatever we are growing." Consultant 2 said, "sizing the market is really important because it drives the business and the type of investment needed to serve the market." Consultant 2 also said,

"It's imperative, to inform any kind of strategy. You need to know the audience and need to know the size of that audience and need to know what are the drivers, what are the key attributes in order then to think about how can you uniquely come to market with that differentiated product and be able to have a unique point of view there. So even from the selling channel standpoint, again, the more that you can define your end consumer, you're

going to be able to drive alignment with those key selling partners. And so they'll be shared values and shared vision."

Regarding market risk, all consultants agreed that this aspect needed to be carefully considered at an early stage of the market selection process. They differed, however, on the particular aspects of risk they would prioritize. One consultant found that regulations and legal issues were a primary concern. They recommended hiring legal counsel to assist with site selection. Another said it was necessary to seek legal support regarding intellectual property (IP) as well as regulatory differences between states. Two other consultants were more focused on risk in operating expenses. One consultant commented that retailers generally wished to pay a consistent price for produce once they accepted it into a store program, meaning that they will only pay one price to suppliers regardless of seasonality or the demand pricing strategy they may implement for consumers. Another consultant commented that input costs are notably inconsistent throughout the year, meaning that the cost of utilities and growing supplies are highly volatile. They suggested that input supply shortfall and the effects of extreme weather needed to be accounted for.

The final aspect that all four consultants agreed was important in the market selection process was understanding the competitive landscape. Consultant 2 said, "You have to know what the playing field is in terms of who's coming to the game and what are their capabilities, what are their offerings, what are their potential strengths and weaknesses. That's going to, again, help inform and make sure you can really solidify your business and your points of differentiation. You really need to have that competitive landscape of all of all the key actors there." Consultant 3 is a firm believer in growing the pie and differentiating to take market share. The competition needs to be studied to understand how best to differentiate and not race to the bottom on price. Consultant 4 suggested studying the tomato industry of the early 2000's. He said there was high demand for greenhouse grown products to extend the quality of the product beyond the summer season. There was an influx of European greenhouse growers and new builds. This led to market saturation and a drop in the price per pound. Many growers went out of business and there was consolidation to just a few large growers.

Table 5 provides a summary of the key priorities for the market selection process as agreed upon by four high tech agriculture consultants.

Table 5. Consultants' perception of high priorities in the market selection process

Market Selection Process - High Priorities
PESTLE/ STEM Analysis
Target Market, Market Size, Market Growth Potential
Market Risk Assessment
Competitive Landscape

3.4.2 Consultants' Perceptions of Internal Capability Requirements

Similar to the case company, the four consultants also divided the internal capabilities of the high tech agriculture companies into two categories: one category relating to the technology platforms and daily operations of the business, and the second relating to sales, marketing and business administration. The consultants were in general agreement that there were standard best practices for inbound and outbound logistics, procurement, human resources, and finance. They felt that many of these tasks could be outsourced until a high tech agriculture company was at a level that they could bring the tasks in house. They felt these areas needed to be budgeted for accurately, but that it was better to hire consultants or advisors to guide these practices in the beginning of the internationalization process. Also, they felt that in these areas, it was critical to find advisors who have experience in the market you are entering. From a leadership perspective, they felt that organizations lead by consultants in the fresh produce industry and with expertise in grocery retail markets were more successful.

Regarding inbound and outbound logistics, Consultant 1 said, "I think we have some internal expertise on that. I think once we start building out an operating plan, that is something we would need to bring more experts on." Consultant 3 shared similar opinions, "You can learn that overtime. People are going to make silly mistakes in terms of efficiency. You will waste a lot of money, so I think having an consultant is important. But I think that comes after the assessment of whether or not you should be in the distribution business at all. Can you buy the expertise rather than having to own it?" Consultant 4 said, "I think that is something that people can worry about later on. You obviously have to hire somebody who understands, but I don't know if you need that as part of your team on day one."

When considering the technical and daily operating capabilities of the high tech agriculture company, the consultants agreed that either a single leadership team should be an expert or that the processes should be outsourced entirely. Consultant 1 said, “We have spent a lot of time doing our due diligence on technology. We’ve built a pretty extensive network of partners and vendors who we work very closely with on the technology side.” Consultant 3 said, “You don’t have to have the growing perfect, but you want to be 80% of the way there from the start and I think you need to have that specialized consultant on site and taking it seriously.” Consultant 4 said, “The most successful companies do not have technical competency in house. They have people who understand how things are going to work and the maintenance that is going to be required. But the people making the decisions are not technical people.”

For all four consultants, it was most critical for a high tech agriculture organization to have strong capabilities in the areas of sales and marketing and communication with stakeholders. The consultants highlighted the need for high tech agriculture companies to articulate their mission and value clearly to buyers, as well as the need to build strong relationships. Consultant 3 said, “You can’t under estimate the value of relationships, and that is one of the hardest things when going into traditional produce. It’s invaluable to have consultants on the sales side who can get stuff sold in. You’re going to need that expertise and people that know how to build and develop these relationships and people who can make the calls. You can learn it over time, but it’s a long, slow and painful path.” Consultant 2 said, “You need to be able to speak the language. Understand what are (the buyers’) incentives. How are they evaluated? You must be able to probe – what are the driving factors for the audience?” Consultant 4 said, “You just need a sales person who has managed that before. You need somebody from the industry because it’s such a niche industry. You need to know the way the retailers want to receive the product, what they care about, and what they don’t care about.”

They consultants agreed that in addition to clear communication with potential buyers, there must be strong capabilities to communicate with employees and investors as well. Consultant 2 said, “Communication is at the heart of any organization, and so you have to be able to articulate a vision and the tasks that need to get done. How do you package this message and make it accessible? You need to put real emphasis around that in terms of communication.” Consultant 3 said, “Every problem I have seen in business has to do with communication in some level. So I think communication skills are critically

important. Either have them yourself or figure out how to hire them. It's a certain personality type that it takes to found a business to get it stood up and get it going, and to have that gumption and it doesn't always translate into being the best people person. And so it's having the awareness to hire in for your shortcomings and make understand that that communication is key." Consultant 4 said, "Not only is it your social capital, but your ability to pitch, and your communication skills with investors. This has a huge, outsized impact on whether you can raise money. Way more than your scientific capabilities or whether your company is actually valuable."

Table 6 provides a summary of the important and less important capabilities of high-tech agriculture companies as agreed upon by four high tech agriculture consultants.

Table 6. Consultants' perception of important and less important hightech agriculture company capabilities

Company Capabilities	
Important Internal Strengths	Less Important Internal Strengths
Sales and Marketing Clear Communication with Stakeholders	Technology Research and Development Inbound/ Outbound Logistics Operations Procurement

3.4.3 Consultants' Perceptions of Market Needs

The final series of open ended questions focused on the consultants' perceptions of the market requirements. Specifically, they were asked how accurate current high tech agriculture companies are at understanding the needs of the buyers. From a list of potential priorities, the consultants were asked which priorities proved beneficial to focus on and which did not. The consultants gave answers with greater conviction than the case company did. This was likely based on the high levels of experience the consultants had in working directly with the target buyers. The consultants agreed that several items were binary – either you complied with buyers' standards or you didn't. Then there were other items, such as merchandising, which seemed less clear.

The topics that the consultants believed were important but also binary were: data sharing, electronic integration, and product shelf life. Consultant 2 noted that many high tech agriculture companies like to use data sharing as a point of differentiation, but in fact it really only mattered when it came to transparency and traceability. Consultant 4 said, “The only important data is where did it come from and what day was it packed.” That is to say, when there is a food safety concern, can a high tech agriculture company clearly state where the food product came from in order to contain the problem. Regarding electronic integration, the consultants agree that the process is very straight forward. Consultant 4 said, “You just do what you are told.” Consultant 3 said, “You will have to do that but (the buyers) will give you the requirements.” Finally, regarding the shelf life of the product, the consultants agreed that it only mattered if the product lasted longer than its competitors once it arrived on grocery store shelves. Buyers would perceive value if the product could sit on the shelves longer and retain its freshness. End consumers would perceive value if the product retained freshness longer after purchase. Consultant 1 said, “We generally believe that shelf life is very important to both reduce waste and get returning customers.”

Supply chain management was one item that all consultants agreed was critically important to buyers, and the most successful high tech agriculture companies are able to meet or exceed expectations in this area. They agreed that the top concern for buyers is whether or not they will get their full shipment of produce on time. Consultant 2 said, “This is incredibly important right now. (The buyers) need to be reassured once they have made a commitment to your product. They don’t want to do any kind of thinking about what might happen to their order.” Consultant 4 said, “The sales person and head grower need to be in really good communication. That is always a point of friction because growing fresh produce undulates and the sales person is selling a fixed amount of produce every week. So there is a constant dynamic between those two parts of the business.”

There were differing opinions relating to other potential priorities such as packaging, merchandising, proactive relationship building, and strategy. For packaging and merchandising, it seems that high tech agriculture companies have an opportunity to work with some buyers who highly value these strengths and others who do not. Consultant 1 said, “Some retailers are engaging with growers around marketing and promotions. They are filming social media campaigns together. I don’t know if I have

seen any statistics around that yet, but anecdotally, I have seen different marketing campaigns and social media efforts around partnerships between two sides.” Consultant 2 said, “some retailers want to know how you are investing in your brand. With the end consumer, you need to know how you are going to get the message out. It could be education, usage, different content. You can’t just put (a product) on the shelf and hope it sells itself. You need to be able to make connections with the packaging and other ways of storytelling.” Consultant 4 explained that all retailers have planograms for the layout of their fresh produce departments. Packaging and merchandising need to fit into the planogram. Consultant 4 also said, “Some retailers are open to proposals. You could say, this is how we envision our product being displayed.”

The consultants agreed that being proactive and having high trust relationships are important factors for successful high tech agriculture companies. Consultant 2 said, “It’s really important to have multiple touch points within an organization. It’s not just shipping and receiving, but it’s multiple points of connection within the sales process that helps a company achieve its goals. It could be product related. It’s important to find different ways to build relationships.” Consultant 3 provided an example, “I have a relationship with a retailer even though I am not the sales person. One day the person calls me up to say ‘I just want you to know that certain things are happening.’ It’s because of our relationship over the years that there is trust and you will get a chance to make some adjustments before you are kicked off the shelves.”

As for strategy building, the consultants felt there is an opportunity for high tech agriculture companies to align with like-minded buyers. For example, if sustainability and ESG standards are a priority for a high tech agriculture company, then they need to seek out buyers who also prioritize those things. Consultant 2 said, “We need to know our audience – the end consumer, the buyer and the investors. Find out how buyers are incentivized, and make sure we are aligned. Bon Appetit Management Company, part of Compass Group, actually ties financial metrics to sustainability metrics.” Likewise, if a high tech agriculture company’s key selling points are continuous supply, then they do not need to seek out buyers who prioritize ESG but rather year round locally grown.

There is also an opportunity to open conversations with buyers about the particular mix of product they are able to buy. Consultant 3 said, “We’re all trying to make these farms profitable and the product mix that makes the farm profitable is what needs to be sold

into stores as opposed to, the store only wants your least profitable crop. You have a whole portfolio and it cost different amounts to grow these different produce and we might have a blended margin. The grower needs to be producing what is best for the buyer and the buyer needs to inform the grower what to grow. It's a two way street, but that has absolutely important when we understand that going into the retailer to have a conversation about what is for sale only be selling the things that are above the line or if they're not, then they have like if you want to take my least profitable skew, you also have to take my most profitable skew, for example. And so your salesperson can't go in selling without under having an understanding of what's possible in the farm and what those costs are to produce.”

Table 7 provides a summary of the high priorities of fresh produce buyers at retail companies as agreed upon by four high tech agriculture consultants.

Table 7. Consultants' perception of high priorities of fresh produce buyers at retailer companies

Perceived Retailer Priorities		
High Priorities	Non-negotiable Requirements	Mixed Perceptions
Supply Chain Management Proactive/ High Trust Relationships	Data and Info Sharing Electronic Integration Shelf Life	Packaging Merchandising Strategic Alignment

3.5 External Interviews with Retailers

The final set of interviews provided insights into the current state of the fresh produce sales category in the target region which the case company wishes to enter. Two target business customers (retailers) were selected to share their opinions. They were asked questions on the current state of the fresh produce category for their stores. They were also asked about their experiences working with young, high tech agriculture companies. The outcome of the analysis of the interviews provided insights on the prospective customers' priorities and needs from a supplier. It also highlighted missteps that high tech agriculture companies have made in trying to build relationships with buyers and secure purchase orders. The retailers refer to the high tech agriculture companies as

“CEA” – Controlled Environment Agriculture, to differentiate from outdoor growers and low tech indoor growers.

Retailer 1 is a senior executive at a large national grocery retail conglomerate in North America. The daily responsibilities of Retailer 1 are to oversee the team of category managers and buyers for the fresh produce department at stores throughout the grocery retailer’s multiple chains. Retailer 1 is also responsible for monitoring innovations in the industry and assessing opportunities for new partnerships and collaborations. Retailer 1 has over thirty years of experience in the fresh produce industry and in supplier management.

Retailer 2 is a Category Produce Buyer for a regional grocery retail chain. The daily responsibilities of Retailer 2 are to directly oversee the fresh produce program at all stores throughout the grocery retail chain. This includes managing product selection, pricing, and negotiations with suppliers. Retailer 2 has been working in the fresh produce industry for over ten years and has an advanced degree in supply chain management.

3.5.1 Retailers’ Perceptions of High Tech Agriculture Companies

Fresh produce grown in a high tech, indoor environment is relatively new to the fresh produce industry and holds a small percentage of total fresh produce sales. The interviews began with questions about the retailers’ familiarity with high tech agriculture companies. When asked if they understood the different types of growing methods and technologies, both retailers answered that they have a surface level understanding only. Retailer 1 said, “There are lots of new technologies and we don’t necessarily have the technical background to validate the claims of what the companies can do. It can be a little bit like the Twilight Zone when it comes to the intricacies of the equipment and how it all works.” Retailer 1 also said, “it’s easier to trust the greenhouse sector when it comes to leafy greens because they have been doing this for a lot longer than vertical farming.” Retailer 2 said, “I know the difference between a soil based greenhouse and a hydroponic vertical farm. I couldn’t tell you what is different about any company’s practices and why one has a better output than another.” Regarding their level of understanding, Retailer 2 also said, “I think it is largely sufficient. As long as the end product speaks for itself, I don’t necessarily need to know every little detail that goes into the growing process.”

When asked about which crop types would benefit most from advances in indoor agriculture, the retailers were interested in bringing the growing location of all crops closer to the buyers. Berries were highlighted as the most intriguing because of the high peaks and low valleys in the growing process. They also observed that in trials, some companies have been able to greatly improve the quality and flavor of the berries. Both retailers felt that in the current market, greenhouse growers had the upper hand, particularly with the tomato category. Retailer 1 said, “greenhouse production has been around for decades. It’s easier to find a ‘good grower’ than in vertical farming, which is too new. You realize the (vertical farms) are trying to take the field playbook and apply it to vertical farming, which is not always successful.” Retailer 2 said, “Obviously the greenhouse tomato industry is huge and we all source from it. But it is hard to imagine sourcing only from greenhouses for all produce.”

Both retailers felt there was opportunity for market share from the organic category segment to move into non-organic high tech agriculture produce. Retailer 1 said, “Controlled Environment Agriculture is better than organic for me personally. What we have to do is educate the consumer on the benefits without completely bashing organic. But organic is not what the consumer thinks it is.” Retailer 2 said, “Regenerative agriculture is also a place where there is a lot of growth potential because a lot of consumers are becoming more sustainability minded.” Retailer 2 also said, “There are certain commodities that just don’t grow well organically. Like papayas. They are all genetically modified. You will never find an organic Hawaiian papaya.”

When asked to envision the fresh produce category ten years into the future, both retailers gave favorable opinions on the growth of the high tech agriculture segment. Retailer 1 said, “I think the share will grow and gain penetration because the range of products is going to expand. The technology will evolve and more crops will be available. It will take market share from both the organic and traditional segments, but likely more from organic unless the price is competitive with traditional.” Retailer 2 felt that the segment would improve based on the consolidation of suppliers. They said, “a lot of (growers) are stepping away from the business and a smaller number of really good, really skilled operators are taking over. Sales will continue to climb with certain products and expand into new products. More people will also realize that we need to take care of our crop land.”

When asked about their grievances in working with high tech agriculture companies, both retailers provided direct examples. Retailer 1 was particularly concerned about the high risk involved in partnering with a grower using vertical farm technology. They said that the technology is not proven and companies are often seeking an off-take agreement so that they can attract funding to build their operations. They said, "As a retailer, I feel like the guinea pig. They have an investor's mindset, but the long term vision is lacking. Retailers are in it for the long run." By comparison, they said the pitch from local greenhouse growers is a bit different. They said, "A local grower comes to us saying they plan to build a farm and what's important is not the technology. What's important is that they are trying to solve a problem for us and they tell us how they plan to sell the product to the customer. They have no intention of selling their farm in five years to capitalize on the return. They are in it for the long run. We are going to build this product segment together and in the long run we are going to move the needle in reducing the amount of imports." Retailer 1 also felt that there was no benchmark to compare high tech agriculture companies yet and it makes it difficult for the retailer to select the right supplier for their stores. Retailer 1 made a specific comparison to the relationship development with a traditional field grown lettuce supplier, "We've been dealing with field growers for decades. We know that we're buying from "X" because we feel that the product is the best in the market and in terms of quality spec, you can't beat "X". So we have increased our business over the years with "X" because they are second to none in terms of producing the most consistent product and their market share in United States is probably insane. Not to say that there are no other good growers out there, but they set the benchmark. This type of standard doesn't exist yet in the controlled environment agriculture space."

Retailer 2 also shared a specific pain point in working with high tech agriculture companies. They felt the companies do not understand the fresh produce industry very well and are confused about sales channels and processes. They said, "They have small startup energy. They tend to bring people in who are a little bit too aggressive. They go through the wrong channels and get frustrated. Sometimes they do some really unprofessional things to try to get attention. For example, blowing up the (retailer) on social media or that type of thing when, as a buyer, I'm sitting here thinking I've never even heard of (this grower). They will say they have been trying to reach out for two years and I find out that they talk to store managers or just somebody in the store. And then they wonder why they don't get (a purchase order). Controlled Environment

Agriculture growers need to learn more about how to network within our industry. And how to follow the right channels.”

Table 8 provides a summary of the opportunities and threats for high-tech agriculture companies as agreed upon by four high tech agriculture consultants.

Table 8. Retailers perceptions of the opportunities and threats for high-tech agriculture companies

Retailer Perceptions of High Tech Agriculture Companies	
Opportunities	Threats
<p>Retailers focus on high quality end product over technology</p> <p>Retailers are open to a variety of CEA grown crop types</p> <p>Retailers envision CEA gaining market share over organic and traditional</p>	<p>Retailers lack of understanding and trust</p> <p>Retailers anticipate consolidation to only a few highly skilled growers</p> <p>Retailers perceive high risk in partnering with CEA growers.</p> <p>CEA growers lack understanding of fresh produce industry and sales channels</p>

3.5.2 Collaborations Targeting End Consumers

The target retailers also expressed that high tech agriculture companies do not understand the target end consumer, in addition to misunderstanding how to work with their target B2B customers. They attributed this to a lack of research on who the retailers are serving and what problems can be solved for the end consumers of the fresh produce. Retailer 1 said, “they don't understand that simply because your product is on the shelf people will not pick it up. You have to put bandwidth behind (the product) and this is where it's important to understand the retailers. You have to understand the levers that they have to drive sales, whether it's promotion, shelf space, POS material. loyalty programs, and so on. How much are you going to invest? How much will you help us from a digital standpoint on our platform and on your platform to tell the consumer and the story.” Retailer 1 went on to cite a recent example on a collaboration with a supplier regarding bananas. They said, “I really challenged them. I told them that I want to bring excitement to the category and drive sales. How do we move the needle in household penetration? We gave them more warehouse space and we put big signs on the highway. We built a campaign and we told consumers that there is something new in town.”

Retailer 2 agreed that the high tech agriculture companies have little understanding of who the shoppers are at their stores. They said, "What our consumers are really looking for is flavor. We want the absolute best tasting product." Retailer 2 cited an example of a partnership that worked well with a high tech agriculture company. "That is something that "X" company did, in addition to a lot of the other stuff. They are really just kind of brilliant - their packaging, their marketing, all of that. They really lead with the flavor story. They really lead with the idea of elevating your meal. So for us that's a huge thing. We want the best tasting food out there, period."

The retailers also shared insights on how their best suppliers prepare to enter into a discussion about adding new products or expanding shelf space. Retailer 1 said, "What are you going to do differently than (the supplier) who's already there? What problem are you trying to solve? Because if you're saying you understand the consumer, then you have to build your strategy around what you are going to do differently. What value do you bring to the retailer? What I find is that there's too much emphasis on the technology. Focus on the quality, the speck of the product, the consumer satisfaction. How are we going to delight the customers day in and day out? How are we going to deliver on our promise? At the end of the day, it's your brand on the package. So as a retailer, I like to hear a supplier or potential supplier worrying about these things and taking action. This is important."

Retailer 2 also shared insights on what separates a good supplier meeting from the rest. "The first thing the grower should be aware of with any store that they're approaching the strategic model. Really understand how the retailer is trying to present themselves to the consumer. Is it a discount store, an everyday shop or is this more of a luxury type experience? The difference is what the consumer wants to see on the shelf. Is (the consumer's) goal is to feed their family in the cheapest way possible or do they want their eating experience to provide enjoyment? Those are two different things." Retailer 2 went on to say, "Some suppliers have an extremely innovative product that when you see the product you say, I need this product. I need to talk to this company and get to know them to figure out how I get this product. Then there's other times where I get to know the suppliers first. I meet them, they call me, we network, I become aware of the company, I learn more about their products, I establish if their products will work for me. Once I have established that I can really move forward, then let's turn this into a buying relationship as opposed to a networking relationship."

Table 9 provides a summary of the key weaknesses in market insights for high-tech agriculture companies as agreed upon by four high tech agriculture consultants.

Table 9. Retailers' perception of high tech agriculture key weaknesses in market insights

Market Insight – Key Weaknesses
Lack understanding of retailers sales process
Lack understanding of end consumer needs and problems to be solved
Lack unique differentiators

3.5.3 Retailer's Needs from Fresh Produce Suppliers

The final series of open ended questions focused on the needs and priorities of the grocery retailers in regards to their fresh produce suppliers. From a list of potential priorities, the retailers were asked which priorities were important for suppliers to focus on and which did not. The retailers agreed on the significance level of many of the suggested priorities. They differed on a few key items such as supply chain management and merchandising. This seemed to be directly related to the differences in the business models for each retailer.

Both retailers rated packaging and logistics (to the stores) as very important. Retailer 1 said, "The packaging is what sells the product, so you have to be thoughtful on that. Resealable, transparent, sustainable - there's all kinds of attributes that you need to be thoughtful on because at the end of the day, it's the vehicle. Logistics is very important because it can make you make or break your profitability." Retailer 2 said, "(Packaging) is critically important. The packaging is, in a lot of cases, what sells the product. For logistics, if I can't consistently and cost effectively get it there, it just literally can't happen."

Food safety and quality also ranked as a high priority for both retailers. Retailer 1 said, "Food safety and quality is at the top of the list. Binary - on Food Safety. It has to be there. We cannot put our customers at risk and our business at risk. Quality is probably binary as well. It has to be high and consistent if you want the program to be successful. Don't compromise." Retailer 2 said, "Definitely. It's super important. If food safety is not

right, it opens up potential liability to everyone. For quality, you're not going to get a repeat purchase if it's poor quality.”

Trust in relationships and understanding strategy were the final two items that both retailers perceived to be of high importance. Retailer 1 said, “Do your homework on the retailer. What's their strategic initiatives? What are their priorities and understand where you fit within those priorities. I like when I sit down with a supplier I hear the supplier or potential suppliers saying ‘I know that you're strategic pillars are XYZ and this is where we fit. This is where we can help you achieve you know XYZ.’” Retailer 2 said, “I think strategy is very important to understand. Some growers, understandably, they want to see their product in every single retailer. They just want more business, which does make sense, particularly if you're on a very high fixed cost system. You've got to fill up those green houses, warehouses, whatever they may be. However, I think that that's not necessarily the right take for a lot of growers. I think that they should understand how they see their product? Because you can't be everything to everyone. How you want people to view your product should dictate which retailer you're trying to get in to and how you brand.” Pertaining to future crops and development, Retailer 1 said, “We are often discussing innovation and what new can a supplier bring to the market. There's always a push and pull in terms of yields, which crops make money, and the R&D is always unknown right. We need to have a transparent conversation. Don't lead me to believe that you can do something if it isn't profitable, right? Be transparent and have honest conversations. Be real about which crops you would make money on and what you can't.”

Both retailers agreed that shelf life is somewhat important. This seemed to pertain specifically to the price they could command for a product as well as the likelihood of repeat purchases. Retailer 1 said, “It's important because you're commanding a premium and given the fact that it's grown closer to the home, we expect longer shelf life to be part of the value equation. Consumers feedback is that they like a product because it's still pretty good a week later in my fridge.” Retailer 2 said, “You need time to get the product through the supply chain and into the customer's refrigerator. As far as the issue of extending shelf life, there's a certain bar you have to get over. Once you get past that, it becomes progressively less important. Once you're past the bar people will say, ‘wow, I didn't expect this product to last that long.’ That said, one of the things I've noticed, particularly in the CEA area, is that a lot of growers will say that their product is good for

21 or 28 days or whatever and then they put a 14 day shelf life on it because they want the customer to be wowed when it's 10 days past the expiration date and it's still in the refrigerator. Unfortunately, that won't work because that product got thrown away 10 days ago in our store and it's not in anyone's refrigerator.”

The financial stability of the high tech agriculture company also resonated as somewhat important to both retailers. They both felt it was necessary to have transparency before committing to put a product on their store shelves. Retailer 1 said, “It's important given the context that most farms are not profitable right now. I don't want to put all of my energy into someone who won't be around in 3, 6 or 12 months. If they run out of cash then they have to shut down.” Retailer 2 said, “Many farms have difficulty with the high fixed cost model. They may have their ups and downs, but you want to know that they are still going to exist tomorrow. I don't want our consumers to get attached to a brand that won't exist in a few months.”

Sustainability and ESG were perceived by both retailers to be somewhat important and growing. Retailer 1 said, “Sustainability is important, but it's always a balancing act on between business goals versus sustainability. We're trying to marry them and it's increasingly more important. There is increasingly more attention being put on the ESG goals and I guess the proof of that is now we publish on a yearly basis an ESG report. It's public, you can go on our website and download the report. I think there is opportunity to include it in everyday decisions. We're all in agreement to reduce food waste by X percent and being carbon neutral by X year. I've been witnessing these objectives starting to trickle down within the organization.” Retailer 2 said, “Our customer is sustainability minded. They are definitely interested in where their products come from and how they got to the store shelf. We are not a store that is based on sustainability. People are coming to us because they want that high quality eating experience, but a lot of our customers would buy a more sustainable product given the opportunity.” They went on to say, “Additionally, as retailers, we have to make the decision based on the fact that often sustainable products are some of the best quality because those are the most meticulous growers. Those are people who are going out of their way to do a good job. It's not just having a label on there, it's that you're literally getting a better quality product because they are doing that extra work.”

At the low end of the priority scale for both retailers was electronic integration and data and information sharing. For both it seemed that data and technology may become more significant in the future, but the systems utilized by all of the stores were relatively low tech. Retailer 1 said, "We haven't reached full integration of systems starting at the warehouses. In three to five years it might be a different story because the industry will likely evolve." Retailer 2 shared a similar comment, "The reality is we are not doing RFID tags right now, so we do not need lots of bells and whistles. Just get me your PC that scans." Neither retailer thought that any information that high tech agriculture could share about the growing process would be of high value. For Retailer 1, the only exception was traceability in the event of a product recall. They said, "I don't see a value there unless something happens and you need to pull product off the market. Then you need to have full traceability, but I don't think retailers worry about how much potassium you're putting in your plant or things like that."

The topics in which the retailers varied in their opinions were supply chain management, product range, and merchandising. This may be attributed to the different business models that the retailers were utilizing. For retailer 1, supply chain management was very important. Their company manages their own warehouses and takes on responsibility for a larger part of the supply chain process. Retailer 1 said, "Supply chain is super important starting immediately after harvest. They need to maintain the cold chain and efficiency in storage." For retailer 2, supply chain management was perceived as something that need to meet a set criteria but would not benefit from being exceptional. Retailer 2 said, "It's one of those bars that a supplier just has to hit for efficiency. I want to know that the truck is going to deliver on the day that they say it's going to deliver on. I want to know that they're not going to call me and say I can't send you product because I literally don't have clam shells. Those kinds of bars have to be cleared. After that, I don't really care if they're exactly at the start of their appointment window every single time. I don't really care unless it's costing me money. Not being good enough, could be a deal breaker, but you're not going to wow me with how extraordinarily efficient it is."

Regarding product range, it seemed that both retailers try to balance the number of suppliers they needed to work with against the quality of the products. Retailer 1 said, "I understand that it's a question of efficiency at the farm. But it's important to offer a range of products. Retailers don't want to be dealing with 25 different suppliers for our salad set. So hopefully the supplier is able to diversify while still being profitable." Retailer 2

said, “I’m more concerned about a grower bring really good at what they offer rather than offering me dozens of SKU’s. I would rather have the four best salad blends than 12 that are not so great.”

For merchandising, retailer 1 found this to be critically important while retailer 2 found it to be lower on the priority list. Retailer 1 said, “Critical. The supplier has to do it. They have to think about it and they have to help the retailer promote and sell the program.” Retailer 2 said, “We mostly handle that internally. So I mean, can somebody offer me ads and an ad calendar? Yeah, but that’s only semi important. As far as merchandising, we’re going to do that. They can be the consultants in growing the product and we will be the consultant in how to merchandise.”

Table 10 provides a summary of the retailers’ requirements from fresh produce suppliers. These requirements are ranked from high to low priority. Requirements that had mixed opinions from the retailers are listed separately.

Table 10. Retailer requirements from fresh produce suppliers

Retailer Requirements from Fresh Produce Suppliers			
High Priority	Mid Priority	Low Priority	Mixed Opinions
Packaging/ Logistics	Shelf Life	Electronic Integration	Supply Chain Management
Food Safety/ Food Quality	Financial Stability	Data and Information Sharing	Product Range
Trust in Relationships	ESG/ Sustainability		Merchandising
Clear Strategy			

3.6 Key Findings: Summary of the Current State Analysis Results

The results of the current state analysis show that there are concerns from the case company’s leadership team that their process for global market selection does not have a strong foundation. The initial preparation of internal analysis and market analysis were lacking sufficient information. The latter stages of networking and account acquisition were also lacking sufficient information. These opinions were supported by the insights shared from industry consultants and sample target retailers as common challenges for

high tech agriculture companies. Additionally, an analysis of the case company's strengths and weakness lead to a mismatch in the perceived necessary capabilities to enter the desired North American fresh produce market.

3.6.1 Process Map for the Global Market Selection Process

There were concerns from the leadership team that their current global market selection process was insufficient in helping the company achieve its goals for global market entry. The specific areas of weakness concerning the leadership team members were Strategy, Communication with Stakeholders, Business Model, Market Intelligence, Focus, Product Market Fit, and Resources. This list of concerns reaches far beyond the narrow scope of the regional market attractiveness evaluation process. It seems they have concerns with the preparations for internationalization that need to be addressed.

Analysis of the interviews with the high-tech agriculture consultants revealed that there are mostly shared opinions on the most important information required to perform market selection process for high tech indoor agriculture companies. This included PESTLE/STEM Analysis, Target Segment Selection, Market Size, Market Growth Potential, Market Risk Assessment, and Competitive Landscape. By comparison, the case company felt that this sort of information was lacking in their current market selection process.

Analysis of the interviews with target retailers revealed shared opinions that high tech agriculture companies do not understand the target end consumer and do not understand how to work with their target B2B customers. High tech agriculture companies do not appear to conduct sufficient research to understand the strategies and pain points of their target customers. They do not present a viable plan for helping the customer increase sales or better reach the end consumer. They do not express an interest in collaborating on a long term strategy before requesting to put product on store shelves.

Figure 4 provides a summary of the case company's current regional market attractiveness evaluation process map (in blue) with external consultants' opinions added (in red).

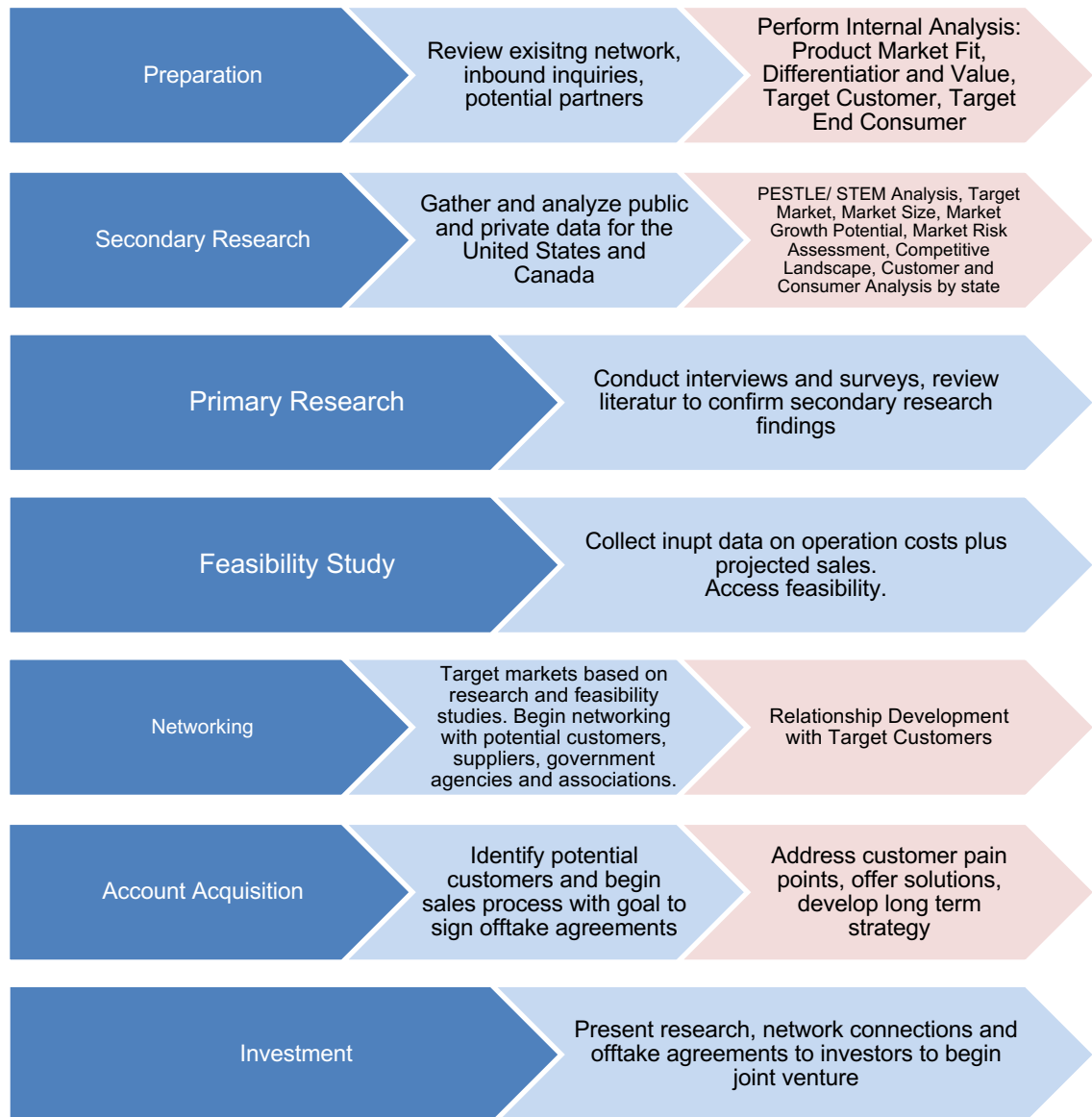


Figure 4. The case company's market selection process map (in blue) with external consultants' opinions added (in red)

3.6.2 Strengths and Weaknesses of the Case Company

The leadership team members had mostly the same opinions on what the strengths and weaknesses of the case company's capabilities are. The strengths are technology and operations. This includes expertise in high tech indoor farm management, logistics and packaging, supply chain management, food safety and food quality, sustainability, and product shelf life. The weaknesses are strategy, market insights, marketing plan, communication, financial stability, and merchandising. The analysis also showed that there were mixed opinions and levels of understanding on what is important to the high-

tech agriculture company's B2B customers. This could also be classified as a weakness of the case company.

The consultants mostly agreed on what capabilities a company must strongly possess and which can be outsourced or acquired at a later time. The critical capabilities can be summarized as sales & marketing and strong communication with stakeholders. The capabilities which can be outsourced or acquired later are Technology, Research and Development, Inbound/ Outbound Logistics, Operations, and Procurement. By comparison, these opinions are in direct contrast with the perceived capabilities of the leadership team at the case company. Finally, the consultants agreed with the retailers on which priorities a high-tech agriculture company should focus on. The priorities were divided into three categories: high priority, non-negotiable requirements, and mixed perceptions. The high priorities were supply chain management and proactive/high trust relationships between retailers and suppliers. The non-negotiable requirements were data and info sharing for traceability, electronic integration, and shelf life. The mixed perceptions were packaging, merchandising, and strategic alignment.

The retailers provided clear insights on their priorities and which areas a high tech agriculture company should focus on. The high priorities were packaging, logistics, food safety, food quality, trust in relationships and a clear strategy. Mid priorities were product shelf life, the financial stability of the supplier and ESG/ sustainability. Low priorities were electronic integration and data and information sharing. The retailers were of mixed opinion on the importance of supply chain management, product range, and merchandising. The resulting mixed opinions require additional research and leaves open the possibility that retailers have different needs from their suppliers in these areas based on their business models. The analysis identifies for the case company how their strengths and weakness are valued by retailers and how they compare to other high tech agriculture companies.

Figure 5 represents a scale comparison of the case company's strengths and weaknesses weighted by retailer priorities.

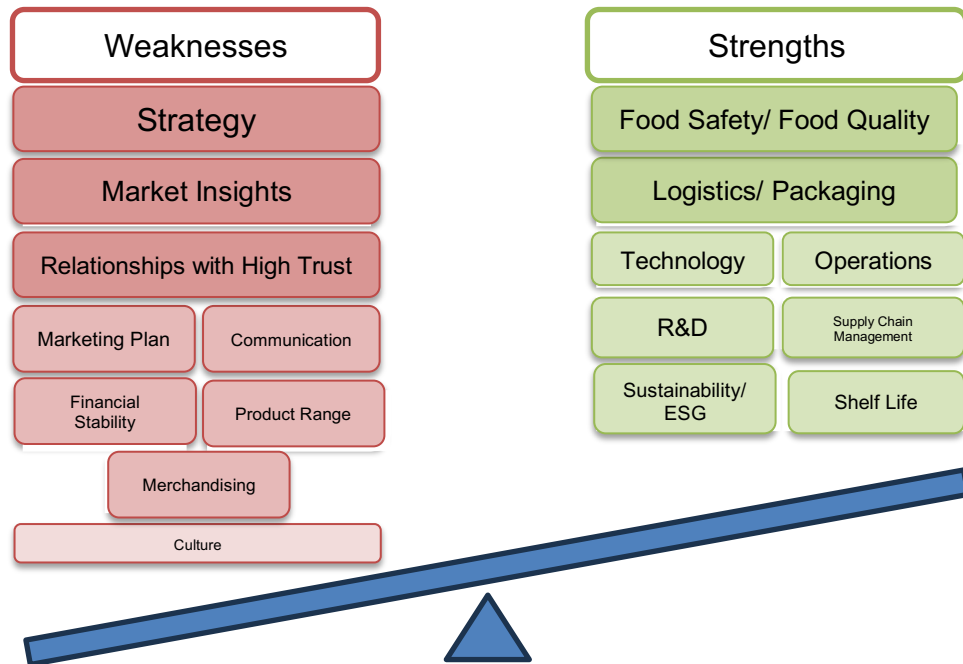


Figure 5. Case company's strengths and weaknesses weighted by retailer priorities

3.6.3 Selected Areas of Development

The case company has gaps in its internationalization strategy. Their strategy could be improved by first addressing its goals for internationalization and then progressing to the market attractiveness analysis. The goal setting process will enable the case company to determine who their target customer is and their value proposition for that customer. Then, to analyze market attractiveness, the case company should identify the attributes that make a potential market attractive. It should also examine its internal capabilities to identify what resources it will require from the new market environment. This will ensure an ideal market is targeted to manage costs, generate sales and win market share. With these elements in place, the case company can create an iterative process to assess market attractiveness and select the ideal market segment to target in North America.

These topics will be studied further in Section 4, and a systematic business process will be built around these topics for guiding the Proposal building in Section 5.

4 Available Knowledge and Best Practices on SME/ Born Global Internationalization and Market Attractiveness Frameworks

This section begins with the findings from literature on the definition of an SME and born global firm. It then describes the motivations, methods, and challenges of SME international market entry. This section continues with foreign market determinants and systematic foreign market analysis for fast moving consumer goods/ agriculture industries. The main internationalization plans examined in this study are O. Andersen and A. Buvik's "Firms' Internationalization and Alternative Approaches to the International Customer/Market Selection" and Sven Hollensen's "The Five- Stage Decision Model in Global Marketing". Much attention is paid to the firm's key characteristics such as internal capabilities and value propositions along with external market factors such as key resources, partnerships and sales channels necessary for market selection. Tools to support data collection in fast moving consumer goods industries are considered. Finally, this section offers systematic and relationship approaches to prioritize, rate and measure all factors in an international market selection process.

4.1 SME and Born Globals – Reasons for Internationalization

According to Sven Hollensen, companies in the EU with fewer than 50 employees are considered small and those with fewer than 250 employees are medium size. The owners and managers of these companies are typically highly trained in a craft or technical skill, but lack formal business management knowledge. (Hollensen, 2020)

"Global marketing expertise is often the last of the business disciplines to be acquired by an expanding SME; finance and production consultants usually precede the acquisition of a marketing counterpart. Therefore it is not unusual to see owners of SMEs closely involved in sales, distribution, price setting and, especially, in product development." (Hollensen, 2020, p7)

SME's represent a significant portion of employment activities around the world, but their international trade is limited. "According to an estimate made by the European Commission in 2010, 25% of European SME's are engaged in exports, 29% in imports, 2% in foreign direct investments and 7% in technological partnerships." (Lasserre, 2018,

p147). Hollensen (2020) points out that SME's tend to be entrepreneurial in nature and may lack long term strategy for growth.

In order for the entrepreneur or leader of an SME to consider internationalization, it is beneficial for them to possess certain additional traits. Hisrich (2016) suggests the following key attributes: ability to embrace change, desire to achieve, vision, high tolerance for ambiguity, high integrity, and respecting the individual.

“If you have not had any international experience, you may want to find someone with this experience to provide help, particularly in a plan that needs significant overseas market involvement at the outset.” (Hisrich, 2016, p.18)

Some SME's may be motivated to pursue internationalization from its inception or at an early stage. They may also rapidly pursue growth in international markets without developing a strong domestic presence. (Hollensen, 2020) These may be classified as born global firms and international new ventures. Definitions of these classifications vary between sources. Cavusgil and Knight (2020) feel that true born globals are young companies with limited resources and likely select a low risk market entry mode like exporting. They perceive new international venues to be either young or mature firms, with a range of value chain activities and a range of market entry modes. However they concede that these newer phenomenon often overlap and are used interchangeably. For the purposes of this study, the term born global will be used to include both groups. Distinctions will be made between value chain activities and market entry modes as needed.

Hollensen (2020) surmises that born globals are SME's that rely on innovation and cutting edge technology as differentiators. He regards the internet as a major catalyst for global sales. Born globals' capitalize on open borders and advancing digital technologies. The rise of born globals have been connected to the movement toward globalization starting in the late 1980's. (Solberg and Huse, 2024)

Although born globals have wide access to international markets, they must be thoughtful about which markets to target and how best to use their resources. Hollensen (2020) explains why small firms cannot afford to take the same multidomestic approach as large firms.

“They are vulnerable because they are dependent on a single product (niche market) that they have to commercialize in lead markets first, no matter where such markets are situated geographically. The reason is that such markets are the key to broad and rapid market access, which is important because these firms often incur relatively high fixed R&D costs, which occur ‘up front’, i.e. before any sales are made.” (Hollensen, 2020, p.92)

This makes selecting a market with strong networks connections even more critical.

4.2 SME Internationalization Strategies

A variety of internationalization theories apply to modern SME's, ranging from the slower moving and iterative process theories to the more aggressive born global approach. It may be a combination of these theories that provides the best approach for an SME. “We have seen that learning is key in the process, and that establishment and development of networks in the market are essential ingredients of this learning.” (Solberg and Huse, 2024, p.98) In the case of modern technology companies, the depth of R&D and the transferable assets of a firm make it more desirable to simultaneously target similar niche markets globally.

Johanson and Mattson (1986) suggest that theories of internationalization must include the following elements: (a) the interaction between the firm and its environment, (b) internal processes within the firm, (c) the firm's resources and activities, (d) the various entry modes and expansion patterns, and their effects on interorganizational relations. (Cited in: Solberg and Huse, 2024, p.81)

4.2.1 Internationalization Models

Internationalization models such as Bakka Model, Uppsala Model, Transaction Cost Analysis, and Network Model offer different processes to evaluate these elements for an SME. The key entry modes of exporting, nonequity arrangements and foreign direct investment also offer insights into evaluating these elements and maximizing a firm's potential. These internationalization models and market entry modes will be discussed in this section.

The Bakka Model and Uppsala Model propose stages that a firm moves through as they increase commitment and risk tolerance for foreign markets. "Bjarne Bakka (1973) was among the first to describe an internationalization process in phases – from what he termed trial export, via extensive and intensive export to international marketing." (Solberg and Huse, 2024, p.75)

The Uppsala Model proposes that companies make incremental steps into new markets through low risk entry modes like exporting. They also choose locations with low psychic, geographic distance. Critics of these models contest that they do not take into account interdependencies between countries, which should speed up the internationalization process as a company progresses. It also does not apply uniformly to all industries, such as the service industry.

"The spectacular development of information technologies, in terms of both absolute performance and diminishing price/performance ratios, has made it easier for a firm to become acquainted with foreign markets, thus making a leapfrog strategy more realistic." (Hollensen, 2020, p.83)

The foundation for the Transaction Cost Analysis (TCA) Model has been around since the 1930's. The economist Ronald Coase argued that a "firm will tend to expand until the cost of organizing an extra transaction within the firm will become equal to the cost of carrying out the same transaction by means of an exchange on the open market'." (Cited In: Hollensen, 2020, p.83) In terms of internationalization, a firm will take advantage of working with distributors, agents or other partners when it is cost effective for the firm to control those relationships and benefit from the advantages that their partners offer. Transaction cost, or friction between buyer and seller, can occur if one party is misleading or distorting the truth for their own benefit. In that case, the transaction cost may outweigh the control costs. The firm should then pivot to a strategy of internalization through foreign direct investment in non-domestic markets. Criticisms of the TCA model include: a narrow view of human nature regarding opportunistic behavior, lack of consideration for the same behavior from within a firm, lack of consideration for production costs, and the need for cooperative environments in an industry. This last concern is especially true for SME's who have limited foreign resources and rely on a strong collection of external partners and resources. (Hollensen, 2020)

The Network Model is first attributed to the work of Johanson and Mattson in the 1980's. They identified that a firm's network is critical to the internationalization process. Hollensen (2020) posited that business networks emerge when coordinated efforts result in strong gains. The actors are tied to each other through a number of different bonds, including technical, social, cognitive, administrative, legal and economic." (Hollensen, 2020, p.87) This is especially true in rapidly changing conditions. Solberg and Huse (2024) repeat the significance of "liability of outsidership", which they explain to mean lack of relevant networks in target international markets.

"To enter a network from outside requires that other actors be motivated to engage in interaction, something that is resource-demanding and that may require several firms to make adaptations in their ways of performing business.." (Hollensen, 2020, p.87)

Solberg and Huse point out that networks are valuable for internationalizing SME's not only for the potential value add in transactions, but also as a cultural advisor to a foreign market. They point out that the process for accessing and gathering information can be costly. They suggest "trusted network partners play the role of a bridge to reliable and relevant information, at a minimal cost." (Solberg and Huse, 2024, p.83)

This concept harkens back to the opportunistic behavior of firms discussed in the Transaction Cost Analysis Model. Time is needed to build trust and establish the bonds of reliable networks. "Breaking into new markets is indeed about breaking into existing bonds between existing partners in the market, and this may take time, depending on the strengths of these bonds:" (Solberg and Huse, 2024, p.83)

However, SME's may be more effective at this relationship development process than larger firms. This may be due to their greater agility and limited bureaucracy. Söderqvist and Holstius (2005) point out that SME's tend to be more innovative and customer-oriented. "Developing and managing business and social network relationships can increase the smaller firm's rate of international development and the general intensity of what can be achieved." (Söderqvist and Holstius, 2005, p.15)

4.2.2 Methods to New Market Entry

In addition to the various theories that guide internationalization, there are specific market entry modes that must be selected. These modes may evolve over time or a firm may select a mode with greater commitment and risk from the beginning. Hollensen explains that the most analytical approach to market entry mode is “Strategy Rules”, which was coined by F.R. Root in 1994.

“This approach requires that all alternative entry modes are systematically compared and evaluated before any choice is made. An application of this decision rule would be to choose the entry mode that maximizes the profit contribution over the strategic planning period subjective to (a) the availability of company resources, (b) risk and (c) non-profit objectives.” (Hollensen, 2020, p.316)

The lowest risk mode is exporting, then nonequity arrangements and then foreign direct investment, which carries the highest risk but also offers the greatest control over a firm’s international activities. This section will examine the latter two modes in greater detail.

Nonequity arrangements allow the global entrepreneur to enter a market and obtain sales and profits without a direct equity investment in the foreign market.” (Hisrich, 2016, p.141) These arrangements offer the opportunity for local production and include contract manufacturing, licensing, and turnkey projects. point Local manufacturing can level the playing field for companies entering foreign markets. Examples include contract manufacturing, licensing agreements, and turnkey projects. (Solberg and Huse, 2024)

A foreign direct investment, on the other hand, requires an ownership stake from a foreign company, investor or government. Verbeke and Lee (2022) explain that foreign direct investment requires the allocation of resources by a foreign company in a host country for the purpose of performing business activities while retaining strategic control. They go on to say that a company should seriously consider the value proposition of performing business activities in the target host country to ensure it offers greater advantages than performing the same activities in the home country. They also suggest that motivations specific to foreign direct investment are either natural resource seeking, market seeking, strategic resource seeking, efficiency seeking, or a combination of these. Examples of foreign direct investments include mergers and acquisitions, joint ventures and strategic alliances.

In order for an SME to receive investment for international growth, they must be secure in the elements of internationalization theory described by Johanson and Mattson. Based upon the firm's capabilities, resources and the type of foreign market they are seeking, they must decide on the internationalization model and market entry mode that suits their situation best.

Born globals are especially sensitive to selecting the right market entry modes because they typically lack resources as they attempt to enter one or many foreign markets. They are "confronted with the compounded risk of new (often fast growing) markets and new products." (Solberg and Huse, 2024, p.86) Papadapolous (2011) noted that international market selection research seldom addresses market choice in the case of foreign direct investments and specifically in mergers and acquisitions.

4.2.3 Barriers and Obstacles to Internationalization for SME's

Regardless of the internationalization model or the mode of entry, all foreign companies must consider the barriers and obstacles that may exist upon entering their target market. Some challenges apply to firms of all sizes, and some are specific to SME's and born globals specifically.

"Internationalization is learning: learning about strategies that work in different markets, about how to cooperate with partners in other countries, about how products and market activities should be adapted to local market conditions, about how to create preferences in different markets, how to secure managerial and financial resources to support the process, etc." (Solberg and Huse, 2024, p.72)

The first set of challenges to consider are artificial and natural barriers. Kanen (2011) describes artificial barriers as government created. This includes tariffs, quotas, regulations, and subsidies. In particular, subsidies give a cost advantage to domestic products. Natural barriers, on the other hand, are related to the culture of the country such as customs, habits and geography. Natural barriers create risk both in missing the connection to the target customer and in higher costs for acclimation, which repeat with each new market.

A second set of challenges to consider are the comparative market distance. Hollensen (2020) describes these as the toll on resources to adapt to differences in culture and

language in each new market. Although the products sold at home and abroad are the same, companies will incur additional costs for doing business abroad due to changes in production process and marketing mix. Lassarre (2018) points out that these changes can become a liability for a company due to financial burden, cost of human capital or lack of bargaining power. Table 11 provides a ranked list of barriers to internationalization for SME's.

Table 11. Obstacles to internationalization as perceived by SME's (Lassarre, 2018, p149)

Rank – Weighed Factor	Description of Barrier
1	Shortage of working capital to finance exports
2	Difficulty identifying foreign business opportunities
3	Limited information to locate/ analyze markets
4	Inability to contact potential overseas customers
5	Difficulty obtaining reliable foreign representation
6	Lack of managerial time to deal with internationalization
7	Inadequate quantity of personnel and/or untrained personnel for internationalization
8	Difficulty in matching competitors' prices
9	Lack of home government assistance/ incentives
10	Excessive transportation costs

A third set of challenges to consider come from within the organization. A firm's lack of particular knowledge and decision making processes can hinder the internationalization process. Söderqvist and Holstius reference a study by Eriksson et al. (1997).

“According to them there are three types of experiential knowledge: internationalization knowledge, foreign business, and foreign institutional knowledge. Foreign business knowledge stands for experiential knowledge of particular clients' and competitors' ways of working, their organization and decision making, and their need for services. Foreign institutional knowledge refers to experiential knowledge about government, the institutional framework, rules, norms, and values. Experiential knowledge is located in the firm, in its decision making routines and structures. As internationalization is a process which is difficult to plan in advance, the ability to develop internationalization structures and routines is

essential. Information seeking and interpretation capabilities are important.” (Söderqvist and Holstius, 2005, p.22)

The born globals experience a particular steep barrier to foreign market entry as they try to accomplish multiple growth goals simultaneously. Solberg and Huse (2024) point out the tension born globals experience in balancing resources and the cost of growth. To achieve their goals, born globals often have to relinquish control in marketing and distribution to preserve resources. Likely they do not have the ability to adapt their marketing mix to reach all potential markets simultaneously.

4.3 Foreign Market Selection Theories

According to Papadopoulos and Martin, choosing which international market to enter is one of many strategic decisions in a firm’s internationalization process. They define this as “the decision by which firms choose the markets, whether defined geographically or otherwise, in which to be present.” (Papadopoulos and Martin, 2011, p.133) They go on to say that in some instances, the terms “selection” and “segmentation” are often used interchangeably. In other instances, a distinction is made. “Typically, the term “selection” is used when the decision focuses on segmenting the world based on national country markets, while “segmentation” is used when the firm attempts to identify market cross-nationally by drawing on characteristics that various types of buyers share regardless of where they live.” (Papadopoulos and Martin, 2011, p.133) Hollensen agrees with this confusion by offering terms “prime segmentation” to mean country and “secondary segmentation” within the country. “If a company is to try to achieve a consistent and controlled marketing strategy across all markets, it needs a transnational approach to its segmentation strategy.” (Hollensen, 2020, p.272) To solve for this challenge, Hollensen proposes using a market screening process which will be discussed in a later section. For the purposes of this study, selection and segmentation will be used interchangeably. Greater distinction will be applied by referencing country selection, market selection and customer segmentation.

Anderson and Buvik (2002) acknowledge two existing theories for foreign market selection and suggest a third.

"Two different, traditional, approaches to the international market selection (IMS) have been presented): (1) a systematic approach, using a formalized decision process including various statistical methods to analyze the potential of target markets; and (2) an unsystematic approach, suggesting the use of rules of thumbs such as selection of those foreign markets that minimize the perceived psychic distance." (Anderson and Buvik, 2002, p.348)

As a third theory, "the relationship approach uses the foreign *customer* as the unit of analysis." (Anderson and Buvik, 2002, p.348)

Anderson and Buvik (2002) go on to explain the nature of each theory and tactics involved. The systematic approach is formal, structured and follows a step by step process. The six steps are: 1. define the IMS problem, 2. set market criteria for evaluation, 3. weight the criteria based on importance, 4. generate a list of alternatives (the length based on the allotted resources), 5. rate each alternative on the predetermined criteria, and 6. compute the optimal decision (with compensatory or non-compensatory models) (Anderson and Buvik, 2002, p. 348) This approach is also referred to as the rational market approach, overall market opportunity index, and the gravitational approach. (Marchi and Vignola, 2014, p.2200) In their study of small firms, Brouthers and Nakos found that "smaller companies that approach international markets in a systematic way appear to be more successful performers than firms using a more intuitive or ad hoc approach." (Brouthers and Nakos, 2005, p. 377) They went on to say that market research prior to market entry plays a critical role in setting the small firm up for success in a foreign market or ruling a location out entirely. (Brouthers and Nakos, 2005)

The systematic approach "allows the company to regard IMS (international market selection) as a process that balances firm and environment (country-market characteristics). Firms following this approach believe their IMS decision is not based on other firms' actions, but on their understanding that they are pursuing opportunities specific to that market." (Hollensen, 2020, p.262) Solberg and Huse (2024) agree that this exercise will most likely result in greater confidence in market selection for leadership. Czinkota and Ronkainen (2010) acknowledge that systematic strategic planning offers cost savings, higher efficacy in product launches, improved product quality, and greater market share.

On the contrary, Papadopoulos and Martin (2011) offer strong criticism of the systematic approach. First, they point out the risk of excluding potential markets early on. Additionally, they point out the challenges of collecting comparative information. Information may be scarce at some levels or too expensive and resource intensive to procure.

The second approach provided by Anderson and Buvik (2002) is the non-systemic approach. This approach is characterized specifically by its lack of a formal method. Observed characteristics, however, are likened to the Uppsala model of internationalization. Location decisions are likely made with psychic and geographic distance in mind, as well as least risk. (Anderson and Buvik, 2002) Brouthers and Nakos (2005) attempted to uncover reasons that some SME's would choose a non-systematic approach. They found that "lack of international managerial experience and lack of know-how for obtaining relevant information about potential international markets were common in their sample of smaller firms." (Brouthers and Nakos, 2005, p.366)

The third approach presented by Anderson and Buvik (2002) is the relationship approach. This approach differs from the previous two as it is not driven by location but rather by business relationships. The approach is presented as a three stage model. First is the awareness stage in which a firm identifies potential partners based on objective skills or qualifications. The second is the exploration which is distinguished by perceived attraction between two actors. The activities include initial negotiations, bargaining, trial purchases, etc. The third and final stage is choice. This results in a partnership agreement based on goal compatibility, trust and performance. (Anderson and Buvik, 2002)

Several key advantages result from the shift to relationship oriented decision making. First the approach acknowledges the "increased recognition of the importance of customer satisfaction, retention strategies, and relationships to the performance of a firm (Anderson and Buvik, 2002, p.352). Second the partnership between the supplier and the buyer may "provide an appropriate mechanism for planning and forecasting in order to cope with the uncertainty surrounding the inter-firm exchange " (Anderson and Buvik, 2002, p.352) Third, "the internationalization opportunities for SMEs largely depend on the characteristics of the networks to which they have access, their capacity to facilitate relations, their degree of concentration and internationalization, the relationship with other networks, suppliers, consumers and institutions and how this group of entities

interact with potential markets.” (Serrano et al, 2023, p.171) A relationship focused approach enables an SME to develop the most beneficial network for operational success.

”A relationship approach is suggested to be more likely than a traditional approach to the IMS under the following circumstances: (1) when the customers are manufacturing firms and service industries; (2) in case of mixed asset specificity and high behavioral uncertainty; and (3) in countries where the environmental uncertainty is perceived to be high. Furthermore, the following propositions are suggested: 4a) For contractual entry modes, the use of a relationship approach is positively related to the firm’s resource commitment, and 4b) a traditional approach is more likely for non-contractual entry modes, than for contractual entry modes.” (Anderson and Buvik, 2002, p.359)

Anderson and Buvik conclude by saying that a mix of approaches can be used for the most thorough analysis of options in the market selection process and that

4.4 Systemic International Market Selection Processes

This section examines each step of the systemic approach presented by Andersen and Buvik. It includes recommendations of tools and frameworks to be used in each step. Industry specific information for fresh produce and high-tech agriculture is also included. As previously stated, the systemic approach is based on the “weighting of criteria used to select markets, and the score given will be subject to scrutiny and deliberation.” (Solberg and Huse, 2024, p.174)

4.4.1 Step One: Define the Problem

The first step in the systemic approach to international market selection is defining the firm’s problem. Specifically, what is motivating the firm to consider internationalization and what are the goals. “There may be four categories of objectives: to develop the market, to access critical resources, to capture knowledge available in the country, and to set up a regional or global center for coordinating various activities.” (Lassere, 2018, p.194) Furthermore, the firm must decide “what role do I want to play in the market?”

(Solberg and Huse, 2024, p.177). Solberg and Huse suggest pondering the following questions:

- “What are my objectives in each market?”
- What are my sales goals?
- On what market segment should I concentrate?
- How will the market selection and the market objectives influence my organization?”

According to Robert Hisrich, “A variety of proactive and reactive motivations can cause an entrepreneur to become involved in international business.” (Hisrich, 2016, p.10) His list includes proactive stimuli such as profits, unique product, unique market opportunity, economies of scale, technological advantage, and tax benefits. His list also includes reactive stimuli such as competitive pressure, excess production capacity, and declining domestic sales. “Overall, the more successful international firms are motivated by proactive – that is, firm-internal – factors.” (Czinkota, 2010, p.281)

Along with a particular motivation, firms are also likely have a change agent from within or outside of the organization that is a catalyst for the new strategy. Internal change agents include enlightened management, new management, and significant internal events. Executives may receive appealing market intelligence or may take it upon themselves to research interesting opportunities outside of their domestic market. External change agents include demand, competition, network partners, financing opportunities, government activities, and business association activities. Demand created by unsolicited orders is a common change agent for small firms to begin exporting. Existing partners are distributors may encourage SME’s to consider new markets out of mutual interest. (Czinkota, 2010, p.282) and (Hollensen, 2020, p.61) In SME’s the internationalization process is typically initiated by the CEO and then becomes the responsibility of the marketing team to research, analyze and create a go-to-market strategy. Regardless of the motivation or change agents, it is imperative that there is a high and sustainable level of enthusiasm for the strategy.

Once the motivations and objectives for internationalization are made clear, Hollensen suggests that a firm must commit to the decision to internationalize based on data-driven criteria. Hollensen suggests Solberg’s “The Nine Strategic Windows” to assess the firm’s preparedness and which steps to take in internationalization. As seen in Figure 6, Solberg’s The Nine Strategic Windows compares a firm’s strategic preparedness with different stages of internationalization.

		Industry globalism		
		Local	Potentially global	Global
Preparedness for internationalization	Mature	3. Enter new business	6. Prepare for globalization	9. Strengthen your global position
	Adolescent	2. Consolidate your export markets	5. Consider expansion in international markets	8. Seek global alliances
	Immature	1. Stay at home	4. Seek niches in international markets	7. Prepare for a buyout

Figure 6. Solberg's The Nine Strategic Windows

As seen in Figure 6, window 4, “Firms in this position are often vulnerable because they lack both managerial and financial resources to confront the market situation... the board of directors should initiate programs to develop a more internationally proactive management team... the company should identify niches in international markets.” (Solberg and Huse, 2024, p.117) In window 8, “the firm has acquired the necessary skills in international business operations and should be able to cope with the challenges posed by complex negotiations with potential partners, without losing its independence. By means of an alliance, the firm may overcome its competitive disadvantages, whatever the field of activity.” (Solbger and Huse, 2024, p.119)

4.4.1.1 Global Business Plan

With clear motivations and objectives as well as an agreed preparedness level, Hisrich recommends preparing a global business plan. A global business plan is a written document “that describes all relevant external and internal elements involved in starting and managing a global organization, the business plan integrates the functional plans, thereby providing a road map for the future of the organization.” (Hisrich,2016, p.97) This document could be likened to the project charter of the international market selection project.

“A well-developed global business plan is important because it (1) provides guidance to the entrepreneur and managers in decision making and organizing the international direction of the company, (2) indicates the viability of an organization in the designated global market(s), and (3) serves as the vehicle for obtaining funding.” (Hisrich, 2016, p.98)

Table 12 represents the outline of the international business plan.

Table 12. Outline of an International Business Plan (Hisrich, 2016)

I.	Title Page, Table of Contents, and Executive Summary
II.	Introduction
III.	Analysis of the International Business Opportunity
IV.	Operation of the Proposed Business <ul style="list-style-type: none"> a. Organization b. Product / Services c. Market Entry Strategy d. Marketing Strategy Plan
V.	Financials
VI.	Appendix

Throughout the international market selection process, the case company should be aware that it is building towards its global marketing plan. According to the Hollensen,

“this implies that a firm is able to: (1) Develop a global marketing strategy based on similarities and differences between markets; (2) Exploit the knowledge of headquarters (home organization) through worldwide diffusion (learning) and adaptations; (3) Transfer knowledge and ‘best practices’ from any of its markets and use them in other international markets.” (Hollensen, 2020, p.40)

This can be done with the work of a variety of frameworks and tools which focus on developing the case company’s international business strategy. Strategy models include Porter’s Value Chain (Porter, 1985), Osterwalders’s Business Model Canvas (Osterwalder, 2010), SWOT Analysis (Hague, 2023) and VMOST Framework (Hague, 2023). Wild and Wild (2024) concisely propose that “The key to developing an effective strategy, then, is to clearly define a company’s objectives (or goals) and to carefully plan

how it will achieve those goals. (Wild and Wild, 2024, p306) They advise that analysis of internal capabilities and external market factors are necessary to determine what value they offer to the market and which realistic goals to focus on.

4.4.1.2 Macro Level Country Analysis

The process of examining all potential global markets against all necessary criteria can be expensive and time consuming. “Two important issues concern managers during the market and site-screening process. First, they want to keep search costs as low as possible. Second, they want to examine every potential market and every possible location.” (Wild and Wild, 2024, p.326) Wild and Wild, Hollensen and others recommend a country level macro-data analysis first to reduce the number of potential markets to a manageable amount for an SME.

It should also be noted that international market selection does not necessarily mean that a firm is deciding between multiple countries. Country attractiveness analysis may be used to assess the attractiveness of a country in absolute terms or relative to another country. This analysis is broad overview of the country’s market and resource prospects, competitive context, and risk of operating. A countries attractiveness is based on the perceived return that an investor can expect compared to the risk of investment. Lassere proposes that a general opportunities and risk analysis framework be used to confirm a countries attractiveness. Table13 represents the framework which compares market and competitive opportunities against risks. (Lassere, 2018)

Table 13. The CAGE Framework (Lasserre, 2018, p.179)

	Cultural Distance	Administrative Distance	Geographic Distance	Economic Distance
<i>Between two countries (bilateral)</i>	<ul style="list-style-type: none"> • Different languages • Different ethnicities • Different religions • Lack of trust • Different values, norms 	<ul style="list-style-type: none"> • Lack of colonial ties • Lack of shared regional trading bloc • Lack of common currency 	<ul style="list-style-type: none"> • Physical distance • Lack of land border • Time zone difference • Climatic differences • Disease environment difference 	<ul style="list-style-type: none"> • Rich/poor differences • Differences in resources: <ul style="list-style-type: none"> - Natural - Financial - Human - Infrastructure - Information - Knowledge
<i>Between a country and the rest of the world (multilateral)</i>	<ul style="list-style-type: none"> • Insularity • Traditionalism 	<ul style="list-style-type: none"> • Non-market or closed economy • Protectionism • Lack of membership in international organizations • Weak institutions • Corruption 	<ul style="list-style-type: none"> • Landlocked geography • Lack of internal navigability • Territorial size • Weak transportation or communication links 	<ul style="list-style-type: none"> • Economic size • Per capita income

As seen in Table 13, the framework focuses on cultural distance, administrative distance, geographic distance and economic distance. Tools such as Porter's Five Forces and Country Diamond may be useful in the process. The CAGE framework by Professor Pankaj Ghemawat may also be useful in comparing the home country to the target country, multiple countries against each other, or one country against the rest of the world.

In addition, a firm must also gather insights on firm specific attributes. "To be able to participate in the international competitive arena, the firm must have established a competitive basis consisting of resources, competences, and relations to others in the international arena." (Hollensen and Opresnik, 2021, p.40) Hollensen and Opresnik advise monitoring these aspects of the competitive environment from a macro to micro level to detect gaps in success factors as early as possible. (Hollensen and Opresnik, 2021) They recommend several tools to assess internal capabilities and competitive advantages such as The Porter Diamond, Porter's Five Forces, Competitive Triangle and Benchmarking-competence profile. (Hollensen, 2020)

Several authors propose a general list of criteria to rate a country's overall attractiveness by. Table 14 shows these attributes in two categories: opportunities and risks.

Table 14. Opportunities and Risks (Lasserre, 2018)

Opportunities	Risks
<ul style="list-style-type: none"> • Market Size • Market Growth • Quality of Demand • Natural Resources • Human Resources • Infrastructure and Support Industries • Competitive Climate • Competitive Structure • Investment Incentives 	<ul style="list-style-type: none"> • Political (Shareholder, Employee, and Operational Exposure) • Economic (Volatility, inflation, input costs, exchange rates) • Operational (infrastructure, regulations) • Competitive (corruption, cartels, networks)

The case company's motivations, objectives and change agent will dictate how broad and thorough the country-specific macro-data level analysis will be. Specific to the United States, several government agencies provide public data to obtain this information:

- US Census Bureau (<https://www.census.gov/data.html>)
- US Department of Commerce (<https://www.commerce.gov>)
- USDA (<https://www.ers.usda.gov/data-products/weekly-retail-food-sales/>)

Additional national data can be found through industry specific trade associations such as International Fresh Produce Association (www.freshproduce.com), The Food Industry Association (www.fmi.org), and National Refrigerated and Frozen Foods (www.nfraweb.org). Third party market research agencies such as Circana (www.circana.com) also provide general industry data on an annual basis.

4.4.2 Step Two: Set Criteria

The second stage of the systemic international market selection process is to determine the criteria upon which all potential market segments will be judged.

"The decision-maker should identify all relevant criteria or objectives against which the alternatives will be evaluated... the decision-maker should be able to connect these objectives in a 'goal hierarchy', ending up with for instance the potential markets' overall attractiveness." (Andersen and Buvik, 2002, p.348)

4.4.2.1 Micro Segmentation of Markets

The list of attributes will be significant for microsegment attractiveness based on the product or service type they offer and their target customer. According to Hollensen (2020), the criteria variables should include “demographic, economic factors, lifestyles, consumer motivations, geography, buyer behavior, and psychographics.” (Hollensen, 2020, p.272) Simkin (1998) suggest considering the context of environmental factors, competitive conditions, and available resources. He goes on to say that the list is specific to the company and includes criteria most salient to their business. Table 15 provides a range of criteria themes to be considered and applied to specific product type and industry.

Table 15. Variables for assessing market attractiveness (Simkin, 1989, p.410)

Market Factors	
Size (money, units or both)	Cyclical
Size of key segments	Seasonality
Growth rate per year: total/segment	Bargaining power of upstream suppliers
Diversity of market	Bargaining power of downstream suppliers
Sensitivity to price, service features and external factors	
Competition	
Types of competitors	Changes in share
Degree of concentration	Substitution by new technology
Changes in type and mix	Degrees and types of integration
Entries and exits	
Financial and Economic	
Contribution margins	Capacity utilization
Leveraging factors, such as economies of scale and experience	Barriers to entry or exit (both financial and non-financial)
Technological Factors	
Maturity and volatility	Patents and copyrights
Complexity Differentiation	Manufacturing process technology requirements
Socio-political factors	
Social attitudes and trends	Laws and government agency regulations
Influence with pressure groups and government representatives	Human factors, such as unionisation and community acceptance

4.4.2.2 Criteria for High Tech and Born Global Companies

There are certain market attributes that are high priorities specifically for high tech companies that are born global or simply trying to reach a majority audience in a foreign market for the first time. In “Crossing the Chasm”, Moore explains that to succeed in new market entry, a firm must select the right first location, which provides leverage to build greater success.

“By way of entry into this market, our immediate goal is to transition from an early market base to a strategic target market segment in the mainstream. Separating us from our goal is the chasm... Cross the chasm by targeting a very specific niche market where you can dominate from the outset, drive your competitors out of the market niche, and then use it as base for broader operations.” (Moore, 2014, p.78)

Moore goes on to explain that a target market segment should be large enough to matter within the industry, but small enough for the firm to gain majority market share in a short period of time, and is also a good fit with the firm’s ideal product. As seen in Table 16, Moore suggests including nine key factors in the micro segmentation criteria.

Table 16. – Target Market Segment Criteria, (Moore, 2014)

Primary Priorities	
Target Customer	the segment consists of the target customer and readily accessible sales channels.
Compelling Reason to Buy	the economic conditions of the segment make a buyer eager to fix a current challenge.
Whole Product	the firm can deliver a complete product to the market segment without challenges.
Competition	there is enough competition to show opportunity in the market segment but it is still weak enough for the firm to dominate.
Secondary priorities	
Partners and Allies	does the firm have an existing network of reliable contacts in the market?
Distribution	does the firm have a sales channel in place in that market?
Pricing	is the price of the whole product suitable for customer’s budgets and customer’s perceived value in that market?
Positioning	Is the firm perceived as a credible supplier in that market?
Next Target Customer	will winning this market create a bowling pin effect to improve entry to adjacent markets?

Moore also agrees with the systemic approach to market selection. He concludes that if an ideal market segment cannot be determined through this process, then the company should reconsider its desire to enter a new market. (Moore, 2014)

4.4.2.3 Criteria for Fresh Produce and Grocery Retailer Sales Channels

There are several market segment criteria to consider that pertain to the product type of fresh herbs and the sales channel of grocery retail. First, several sources offer consumer data at the national level, the nine geographic markets level, and at the state level. As previously mentioned, government, association and market research firms offer these insights on an annual and quarterly basis. (International Fresh Produce, 2025) This information is divided into two subcategories: conventional and organic. Since no category exists specifically for high-tech indoor grown produce, it is logical to observe the data for the organic category. "Consumers are often motivated to support organic or local agriculture because they believe they are more sustainable than conventional agriculture." (Zepeda and Nie, 2012, p.467) Data on the demographics and attributes of consumers more likely to buy organic fresh produce may assist a supplier in targeting consumer who would also be interested in high-tech indoor grown produce that is more sustainable.

Results from a study by Zepeda and Nie (2012) are consistent with results from other similar studies conducted in the United States. Based on consumer research of organic produce buyers, there was no significant relationship found between organic purchases and health or environmental concerns. Behavioral attributes such as education level, lack of religious affiliation, enjoyment of cooking, and shopping venue showed greater significance. This study found that the only significant demographic variable was another adult in the household. It found that behavioral variables had a greater significance. Enjoyment of cooking, shopping at health food stores and gardening had a high significance with local food purchase. (Zepeda and Nie, 2012) They conclude by saying that when studying local food purchases, "multivariate analysis shows that behavioral factors are often the best predictors." (Zepeda and Nie, 2012, p.469)

Aside from the organic market, there are other consumer demand trends that a supplier of high-tech indoor agriculture products would desire to target.

“In particular, in the food industry, consumers are becoming increasingly health-conscious and interested in “LATTE” characteristics: local, authentic, traceable, transparent, and ethical supply chains. This trend encourages a local adaptation and tailoring of value chain positions in this industry.” (Schlegelmilch, 2022, p.114)

In their study, Seong et al (2021) surveyed 2,114 leafy green consumers over the age of 18 and living in the United States. They found that 14.5% of the population is IA (indoor agriculture) engaged, or currently purchasing leafy greens grown indoors. An additional 29.7% is categorized as IA Supportive, based on willingness to consume IA produce. The recommended strategies focus on high-quality, high-price, and high-margin positioning. They also suggest less emphasis on the IA technology.

Identifying the attributes of the target customer will enable the case company to identify location clusters with the highest concentration of customers. This will enable them to accurately measure the size of the total addressable market, the share of the market they can strive for and the predicted growth of the market.

4.4.2.4 Criteria for Fast Moving Consumer Goods Distribution

Understanding how the fast moving consumer goods market in North America is measured and analyzed can assist in collecting accurate data and comparing market segments. As Hobelsberger (2021) explains, national measures are often not suitable for retail sales.

“Non-online commodity retail competition is shaped by local market concentration: Thus, different than other industries, such as, for instance, the manufacturing sector, retailers compete for customers and sales on the local instead of the national level. In this context, the trade area is the geographical area a retailer draws its customers from..” (Hobelsberger, 2021, p.36)

Hobelsberger (2021) says that market segment size and the expected growth of the market must be taken into account. To calculate market potential in the fast-moving consumer goods sector, Schlegelmilch (2022) suggests multiplying the total number of buyers in specific market by the quantity purchased by an average buyer. The number can then be multiplied by the price of an average unit to estimate the total value.

“Due to products’ characteristics (relatively short shelf life and relatively high transportation costs) geographical proximity together with potential market size and expected market growth represented key indicators of a potential market attractiveness.” (Annushkina & Regazzo, 2020, p.68)

Digitalization has changed the sales channels available to consumers and the way they shop for FMCG’s.

“New technologies have allowed retailers to move to new channels, such as Omni channels and O2O. This has allowed consumers to shop more conveniently, mainly through mobile apps, but also through large stores that offer a variety of products and services rather than small ones.” (Alkhiyamii et al, 2024, p.7)

Alkhiyamii et al (2024) point to convenience as a key driver for buyers to choose intermediated shopping channels, such as grocery stores, over direct-to-consumer. As the sales channel options shift, so too must the “shopper typologies on the basis of shopping motivations, psychological orientations towards the act of shopping and the outcomes expected from the shopping activity.” (Harris et al, 2017, p.421) Depending on the profile of their target consumer, suppliers will target the sales channels that the consumers request most often. Suppliers will also want to align with sales channels that actively solicit their target consumer.

“Consumer responses to retailer marketing activities included consumer purchasing or decision-making, loyalty, engagement, word of mouth, store visits or switching brand awareness or recognition, knowledge, breadth/variety of purchases, and inertia or habit persistence.” (Journal of Retailing, 2022, p.73)

The importance of quality and safety are not to be overlooked in this changing retail landscape. Hobelsberger (2021) suggests that this is a key competitive strategy to win higher-income customers in spite of growing competition and reduced transaction costs. This leads to the rise in private grocery retail distribution centers. Hobelsberger (2021) explains that in the case of fresh produce, distribution centers add value by becoming the location for grading, cleaning, packaging, labeling, pricing and assembly for ready-made foods. These foods include stir-fry, pre-washed salad mixes, and microwaveable veggies.

In addition to private distribution centers, “supermarkets tended to gradually shift toward the use of specialized wholesalers and preferred suppliers, which were dedicated to modern food retailers as their main clients and therefore willing and capable of meeting supermarkets’ specific needs” (Hobelsberger, 2021, p.81)

Selecting the right sales channels provides an opportunity to most easily reach target customers. Collaboration with channel partners provides greater insights on consumer behavior and trends. With this in mind, it is critical to include intelligence on sales channels, distribution center locations, and potential retail partners in the market segmentation criteria.

4.4.2.5 Criteria for High Tech, Indoor Agriculture Fresh Produce Distribution

In addition to target consumer attributes, criteria for market selection should also be based on market factors for production and distribution. Biancone et al (2022) observe that in the case of food, every citizen can be a potential customer and every city is a possible market. Indoor agriculture has the flexibility to be located near the most desirable cities. Certain location factors could improve cost control and quality control for high tech indoor agriculture production.

“The decision-making process must consider food quality, plant survival factors, plant selection, planting method, cost/benefit, food accessibility and energy and environment management.” (Biancone et al, 2022, p.2253)

Logistics requirements from production facility to distribution center to retailer to customer are an important factor. D’Ostuni et al (2022) reflect on the potential to reduce food waste and increase shelf life by shortening the supply chain and reducing spoilage. D’Ostuni goes on to explain that “a food mile is calculated by taking the distance travelled by each food ingredient and multiplying it by the quantity of the carbon that is produced by the type of transportation use.” (D’Ostuni et al, 2022, p.7) Selling produce closer to the distribution center and end consumer reduces the food mile.

Support from government agencies and incentives can also play an important role in market attractiveness for a high tech agriculture company. Biancone et al. (2022) found that sustained growth in urban agriculture will require policy implementation to ensure

high tech indoor agriculture companies can be competitive with traditional domestic and international growers.

Site selection also considers the of cost and availability of labor, infrastructure, utilities, raw materials, and access to communication networks. Rikalovic et al (2013) emphasizes how critical this decision is on the success of the operation. Allocation of resources and efficiencies in production are crucial to production success. The decision of which site to select and where to invest resources is likely irreversible. A feasibility study is a recommended tool for accurately accessing the cost of operations at a particular location. It can identify risks, facilitate planning, and provide project controls. (Alamsyah, 2021) The consider market potential, risk, competition and financial projections.

It is also important to identify a market with large existing actors who have similar business goals and who can support the market entry efforts of a smaller firm with high tech knowledge. “The SMEs can overcome the barrier of small size in their internationalization process through collaborative networks. In the globalization era, firms of all sizes are beginning to share the same competitive space. For instance, symbiotic arrangements are evolving through which smaller firms enter the value chains of larger firms, in a good deal for both sides of the transaction. Collaboration allows firms to overcome inherent constraints of size and to achieve the efficiencies required for global competition. (García-álvarez, et al, 2019)

4.4.2.6 Criteria for U.S. Fresh Produce Regulation and Competitor Analysis

Agriculture and fresh produce sales are long standing industries in North America. There is established governance - including regulations and tariffs, as well as the modern value chains that structure the fresh produce industry in the United States and Canada. The Farm Bill, NAFTA (North American Free Trade Agreement), and USDA governed programs are critical for understanding motivations that drive domestic and foreign commercial suppliers. For example, “farm bills have increasingly addressed policy areas focused on broader social goals, expanding nutrition assistance and including environmental requirements and incentives, rural community viability, and most recently, support for alternative farming and marketing systems.” (Dimitri and Effland, 2020, p.401) Additionally, “commercial farms depend on annual operating credit to support production,

while facing potentially wide variations in annual revenues” (Dimitri and Effland, 2020, p.401)

The value chains which enable farmers to supply grocery retailers have for many years been conventional. “U.S. vegetables are grown under production contracts (for example, varietal selection and the type of farming system) and marketing contracts (for example, tonnage contracts based on a market price) with grower.” (Boland, 2018, p.39) It can be difficult for midsize farms to provide the minimum volume of product required for this system and the cost can be high.

In the last ten years, intermediate market channels or value-based chains have become a viable option for midsize growers. Stevenson et al (2011) explain that midscale food value chains provide strategic business alliances among farmers and agri-food businesses. When acting in cooperation, they can operate more effectively at multi-state levels, handle higher volume requests, and increase leverage in sales negotiations. Boland (2018) points out that large grocery retailers have different expectations from fresh produce suppliers, which are more easily met by these intermediate market channels. For example, providing pre-cut fruit in smaller containers.

At the same time, retailers are facing greater regulation and scrutiny on issues of food safety and labor practices.

“Consequently, retailers have turned to turnkey suppliers who can deal with all of these issues (for example, using e-verify for labor or tracing food through the supply chain to verify sustainability claims). Retailers have moved away from wholesalers and toward greater coordination through contracts of a certain duration with regular audits and inspections.” (Boland, 2018, p.)

Following these governances and supply chain practices, the case company will be able to identify the domestic and foreign key players in each market and who represent a competitor or potential partner. They can assess strategic advantages for aligning with particular retailers, wholesalers or other intermediaries. Additionally, they can analyze market share and compare their product differentiation for competitive advantages.

4.4.3 Step Three: Weight Criteria

Once the most relevant criteria has been selected for the market attractiveness assessment, that criteria must be weighted to ensure greater impact is given to the more significant criteria. According to Rikalovic et al (2014), “The integration of MCDM (multicriteria decision-making) techniques has undoubtedly enriched the field of international market selection, providing companies with a structured framework for navigating the complexities of global expansion.” (Rikalovic et al, 2014, p.1058) He goes on to describe the most significant factors in MCDM methods as the number of decision makers, number of objectives, number of alternatives, existence of constraints, and risk tolerance.

”Multi-attribute decision making (a form of MCDA) methods are data-oriented. An attribute is a concrete descriptive value, a measurable characteristic of an entity, including inter-entity relationships.” (Rikalovic et al, 2014, p.1058)

To weight the criteria for the market attractiveness matrix, Analytic Hierarchy Process model is a commonly recommended tool. “The usefulness of the AHP model lies in its ability to decompose the factors that make up the structure of a problem into successive hierarchical levels according to their degree of incidence or importance within.” (López-Cadavid et al, 2023, p.10) “The method also allows to “translate” subjective opinions, such as preferences or feelings, into measurable numeric relations.” (Goespel, 2018, p. Free and low cost subscription software tools are available to apply AHP model to IMS selection criteria. By using AHP software, a firm can give weight to the chosen criteria. This can be done by one person or several knowledgeable team members. The criteria attributes must be consolidated to up to nine key categories upon which to base the market attractiveness assessment. The AHP model can then be applied to an unlimited number of potential market geographic segments, based on available firm resources.

Saatay (1994) describes how a 1 – 9 scale can be used to within a square matrix to compare the relationship between two elements. Absolute numbers are assigned as values to judgements made by comparing two elements. Table 17 explains the scale of numerical representation along with definitions and intensity for each number.

Table 17. Numerical values to judgements (Saaty, 1994, p.26)

<i>Intensity of Importance</i>	Definition	Explanation
1	Equal Importance	Two activities contribute equally to the objective.
3	Moderate Importance	Experience and judgement slightly favor one activity over another.
5	Strong Importance	Experience and judgement strongly favor one activity over another.
7	Very strong or demonstrated importance	An activity is favored very strongly over another, its dominance demonstrated in practice.
9	Extreme importance	The evidence favoring one activity over another is of the highest possible order of affirmation.
2, 4, 6, 8	For compromise between above values	Sometimes one needs to interpolate a compromise judgement numerically because there is no good word to describe it.
<i>Reciprocals of Above</i>	If activity <i>i</i> has one of the above nonzero numbers assigned to it when compared with activity <i>j</i> , then <i>j</i> has the reciprocal value when compared with <i>i</i> .	A comparison mandated by choosing the smaller element as the unit to estimate the larger one as a multiple of that unit.
<i>Rationals</i>	Ratios arising from the scale	If consistency were to be forced by obtaining <i>n</i> numerical values to span the matrix.
1.1-1.9	For tied activities	When elements are close and nearly indistinguishable; moderate is 1.3 and extreme is 1.9.

4.4.4 Steps Four and Five: Generate List of Alternatives and Rate Alternatives

One advantage of an in depth market attractiveness evaluation process is to closely observe the differences in various regions within a country. Annushkina & Regazzo (2020) confirm that foreign investors find major cultural and economic differences

between business regions within a single country. Regional characteristics are important in market selection. They note that comparable data between regions is not always readily available.

”Regions differ in terms of taxation, local levels of demand, workforce costs and quality, distance from the main infrastructure hubs and quality of those hubs, and also availability of networks of local partners. Firms should compare market potential at the regional or provincial levels, and in some cases even at the level of a district within a city, rather than at country level.” (Annushkina & Regazzo, 2020, p.66)

To complete the systematic analysis process, marketing data is collected on national and sub-national levels for the short list of potential market segments. This data is used to justify the scores given for each criteria in the rating process.

4.4.4.1 Marketing Research

Marketing research is conducted to gather data on each potential market segment for the criteria comparison. ”Besides the split between internal and external data, the two major sources of information are primary data and secondary data” (Hollensen, 2020, p.172) Primary data ”is collected first-hand, generated by original research tailor-made to answer specific current research questions.” (Hollensen, 2020,p.172) Secondary data is ”information that has already been collected for other purposes and is thus readily available.” (Hollensen, 2020, p.172) Solberg and Huse (2024) offer a third perspective on market research data is high availability and low availability. High availability data is available on the firm, its potential customers, its potential competitors and the macro environment of the market segment. This includes: financial data, pricing and market share, market segment size, and market regulations. Low availability data includes brand positions, marketing mix, buyer needs, and sales growth and forecasting. (Solberg and Huse, 2024)

For secondary data, firms can look to databases, organizations and associations, and national data statistics. Techniques such as proxy indicators, chain ratio method, lead-lag analysis, and estimation by analogy are often used by research firms to make estimates when more precise data is not accessible. Primary data offers the opportunity to dig deeper and add specific context to secondary data. To find low availability data,

firms can use primary market research techniques such as observations, in-depth interviews, and questionnaires. (Hollensen, 2020 and Solberg and Huse, 2024) A conceptual map is “a way to link the broad statement of the marketing decision problem to the marketing research problem.” (Nunan et al, 2020, p.43) This process enables the researcher to define an approach to the problem, research questions to ask, frameworks and models to use, and finally, specific information needed.

Several tools and techniques can assist in the market research and data collection process. While the cost of paid research and analysis can cost tens of thousands of US dollars, data analytics software is often subscription based and more cost effective. Modern software also focuses heavily on customer experience, making the tools quicker to learn and easier to use. The process is likely to be iterative and will involve multiple feedback loops. (Hollensen and Opresnik, 2021, p.46)

Hollensen offers a market research frame work to go about organizing the data for the list of criteria. Figure 7 represents the core questions of the market research and a way to organize the primary and secondary research acquired to answer these questions. It also categories a broad list of criteria into seven categories. Up to two additional categories can be included in the diagram, such as site criteria and government/ association related support. Once a list of key criteria has been created and organized into categories, it is ready to be weighted and then applied to each market segment under consideration.

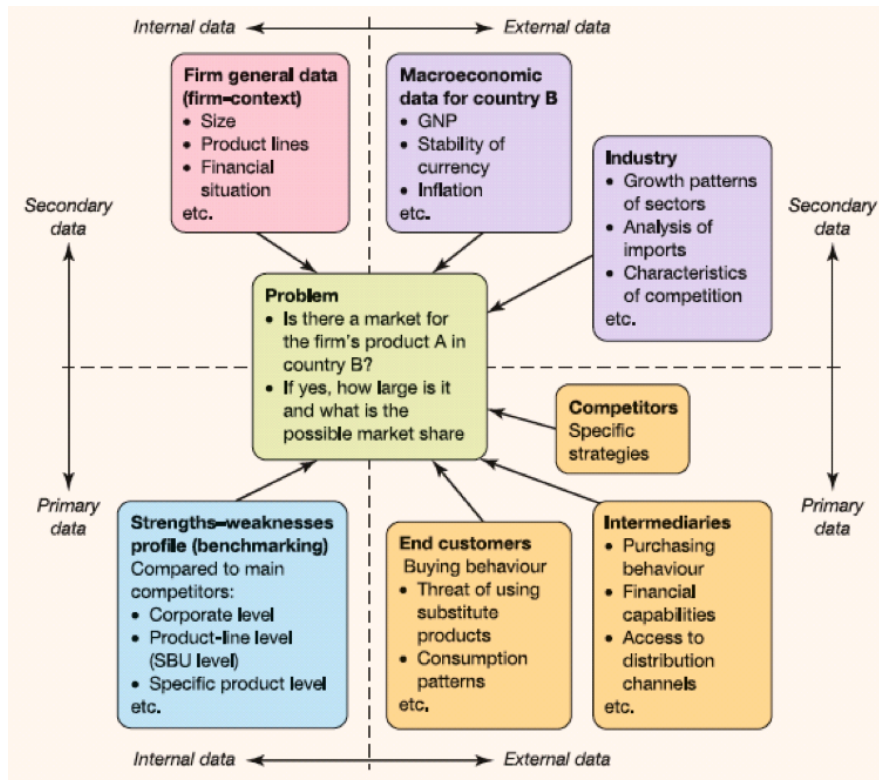


Figure 7. Market Research Framework (Hollensen and Opresnik, 2021, p.46)

Once the data has been collected for each category of criteria and the criteria has been weighted through the AHP model, the results of a market segments attractiveness relative to other market segments can be observed. Hollensen recommends using the MACS matrix to compare market attractiveness to relative competitive strength. Each criteria category is given a score, the weight is applied, and the scores are calculated to give a single total for each axis. The final total is plotted on the matrix. Markets that rate highest are considered the primary markets and worthy of more thorough research. The sample MACS questionnaire is found in Figure 8 and the MACS Matrix in Figure 9.

Time of analysis:
 Analysis of product area:
 In country:

A. Market attractiveness

	1 Very poor	2 Poor	3 Medium	4 Good	5 Very good	% Weight factor	Result (grading x weight)
Market size							
Market growth							
Buying structure							
Prices							
Buying power							
Market access							
Competitive intensity							
Political/economic risks							
etc.							
Total						100	

Market attractiveness = Result : 100 =

B. Relative competitive strength
 with regard to the strongest competitor =

	1 Very poor	2 Poor	3 Medium	4 Good	5 Very good	% Weight factor	Result (grading x weight)
Products fit to market demands							
Prices and conditions							
Market presence							
Marketing							
Communication							
Obtainable market share							
Financial results							
etc.							
Total						100	

Relative competitive strength = Result : 100 =

Figure 8. MACS Questionnaire (Hollensen and Opresnik, 2021, p.46)

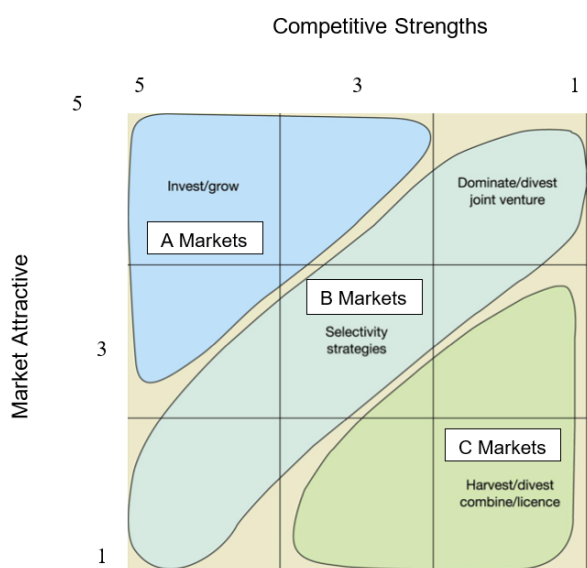


Figure 9. MACS Matrix (Hollensen and Opresnik, 2021, p.46)

4.4.5 Step Six: Compute Optimal Decision

At this point, the list of potential markets and sites should be relatively small. The final step is to perform a personal visit to each location to perform a highly technical evaluation. Wild and Wild (2204) recommend the site visit to ensure that final decisions on site selection include first-hand observation. Cultural observations can be made through personal experience.

In addition to the personal visit, a thorough competitive analysis for the market is needed. There is particular concern about the downward pressure that competitors can put on the prices that a firm can charge for their products as well as potential limitations in access to labor and distribution partners. A management team should feel confident in their international market selection at the conclusion of step 4. (Wild and Wild, 2024)

4.5 Relationship Approach

A complimentary approach to the systemic international market selection process is the relationship approach, which relies on developing networks for market expansion. "Influential international business literature has acknowledged the importance of business relationships and networks for internationalization" (Chetty et al. 2024, p.1) Chetty et al. (2024) suggest that success in foreign market selection also relies upon business relationships. A firm should observe itself at the center of a network of partners, customers, academics and other service providers.

Recurring interactions with network connections builds trust, offers new insights, creates synergies for collaboration and reduces uncertainties. (Chetty et al. 2024 and Bolivar et al. 2023) Boliver et al. (2023) point out that business transactions can begin as social relationships with the purpose of mutual understanding and identifying shared connections. From there, social capital develops as companies become embedded in interorganizational networks.

In their research, Galkina and Jack (2022) found that the approach to relationship development and network building can also be systematic. Planned networking can be accomplished through preliminary research to target key potential partners with shared

goals. Chetty et al. (2024) agree that a systematic approach leads to stronger strategic partnerships, joint opportunity creation, and more effective network development.

As previously mentioned, Anderson and Buvik present the relationship approach as a three stage process: awareness, exploration, and choice. At the awareness stage, firms seek to identify potential partners. From the resource-based perspective, networking is strategic and goal-driven. "Entrepreneurs exploit a predefined opportunity and can estimate what relations and resources will be essential to their venture." (Galkina and Jack, 2022, p.567)

"Given the idea of fit, entrepreneurs need to decide in which 'forest' they will find the useful 'trees', or where and from which existing network structures (industries or markets) they want to select new contacts." (Galkina and Jack, 2022, p.567)

The second stage of Andersen and Buvik's proposed process is exploration. In this stage, the case company and potential partners are recognizing mutual attraction. Forming a strategic alliance (SA) creates shared benefits and shared risks for the parties involved. Wild and Wild (2024) advise against forming cooperations simply because someone expresses interest. This may not prove to be mutually beneficial.

"SA may address a number of different strategic objectives such as for instance product standard setting, research and product development, manufacturing for a specific product or service and/or for a specific market, but also marketing and distribution in one or several markets" (Solbereg and Huse, 2024, p.218)

Since relationships between companies are relationships between people, it is important that top managers of the firms meet in person. The personal side of business relationships are important to ensure there is good chemistry. (Hollensen, 2022)

The third and final stage in Andersen and Buvik's proposed process is choice. In this stage, the firm and its partner are committing to an agreement with long term potential. In a business to business (B2B) context, the firms are seeking mutual loyalty that exploits benefits and reduces risk over an extended period of time. Arthur et al. (2024) describe loyalty as enduring collaboration, trust-building and positive recommendations. Wild and Wild (2024) suggest detailing precise duties and contributions from each party at this stage. It will help to avoid misunderstandings and mistrust in the long run.

Financial and psychological commitment to the collaboration are essential to build trust and maintain synergies. The partnerships should create win-win situation for both and there can be no hidden agendas or motives. Compatibility, trustworthiness and close communication are critical to successful business partnerships. (Hollensen, 2022)

4.6 Challenges with Traditional Strategic Management Theories

While mainstream internationalization strategies based on traditional strategic management theories have enduring qualities, they may not serve high tech, born global SME's in modern globalized industries. Hollensen recognized that

“born globals represent a relatively new research field in international marketing. They share some fundamental similarities: they possess unique assets, focus on narrow global market segments, are strongly customer-oriented, and the entrepreneur's vision and competences are of crucial importance.” (Hollensen, 2020, p.93)

He goes on to say that born globals have been able to reduce risk by entering a new market in close geographic proximity first, then quickly leverage technical skills and networks to continue growth in more distant markets.

Freeman et al. expressed a critical view of traditional internationalization theory when applied to born global firms. They surmise that a born global SME brings value to potential partners in foreign markets through specialized technology and innovation. Therefore, born global SME's are able to leap frog the early stages of learning by identifying partners with a shared interest in the SME's technical capabilities.

Based on their review of the literature on early internationalizing small firms, Rialp, Rialp, and Knight (2005) emphasized the importance of developing theory, constructs and conceptual frameworks to better understand rapidly internationalizing SMEs.” (Freeman et al, 2009, p.72)

Some studies have incorporated a resource-based view (RBV) and inter-organizational perspective to explain more comprehensively the non-path-dependent behavior of smaller born-global firms (Chetty & Campbell-Hunt, 2004). Such research has suggested that the rapid expansion of born-global firms is facilitated by seeking out larger foreign

customers for distributing their high-technology knowledge-intensive products quickly along their extensive global supply chains (Freeman & Cavusgil, 2007). The roles of accessing resources, and in particular intangibles, are especially important to SMEs that face international barriers due to their lack of financial and human capital, relative to larger organizations (Leonidou, 1995). An important example of such an intangible resource used by SMEs, and in particular, born-global firms, is tacit knowledge, which may be leveraged to develop new knowledge. (Freeman et al, 2009, p.72)

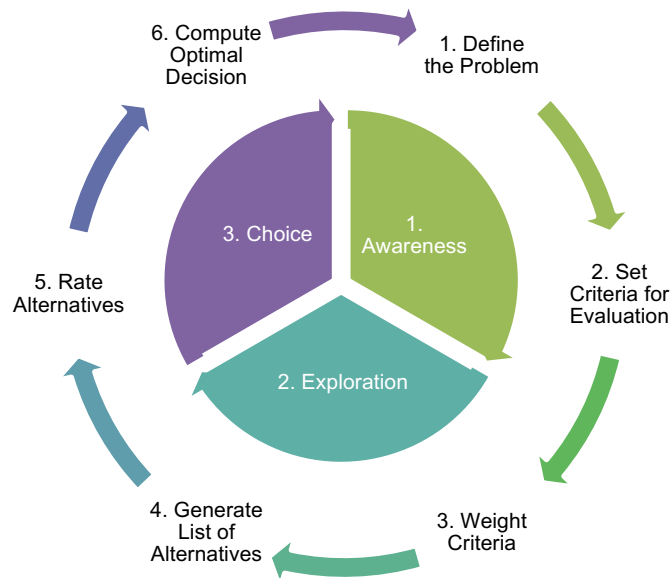
Internationalization of a high tech agriculture company that needs to establish production in the new foreign market is a wicked problem. It requires an internationalization strategy based on a business model canvas which is customer and network oriented and agile for a volatile industry. Hennert et al. point out that born global firms which rely on local resources will not be able to internationalize as quickly as those which do not require foreign country resources. “Non-location-bound FSAs (firm specific advantages) must be recombined with local resources such as labor, distribution, raw materials, and utilities.” (Hennert et al, 2021, p.1669)

4.7 Conceptual Framework of the Thesis

In conclusion, a systematic approach to international market attractiveness assessment along with a causal relationship approach has many benefits for a high tech SME with goals of international market entry at an early stage of the company. Extensive data collection is required in these approaches. Multiple frameworks are needed to collect and organize information on all criteria. The market selection process will start at a broad, macro level to confirm the country choice and advantages offered by the country for the firm. Then, at a micro level, the selection process will narrow to a short list of viable options. Each location option is measured on a list of criteria that is specific to the high tech agriculture and the fresh produce industry. Finally, the results of these measurements are weighted and compared, providing a ranking of viable options.

Simultaneously, the firm must pursue a relationship approach in the viable locations to identify synergies and opportunities with potential partners. These synergies will be based on mutual benefit of predetermined goals. The combined efforts of systematic market attractiveness assessment and relationship based market selection can result in

the ideal location for a firm’s international expansion. Figure 10 represents the simultaneous processes with steps for each stage and phase.



Systematic Market Assessment STAGES	1. Define the Problem	2. Set Criteria for Evaluation	3. Weight Criteria	4. Generate List of Alternatives	5. Rate Alternatives	6. Compute Optimal Decision
	International Business Plan (Hirsch, 2016) Value Chain (Porter, 1985) Business Model Canvas (Osterwalder, 2010) VMOST Framework (Hague, 2023) The CAGE Framework (Lasserre, 2018)	Variables (Simkin, 1989) Primary and Secondary Priorities (Moore, 2014) Fresh Produce Demographics and Customer Attributes (Zepeda and Nie, 2012) Distribution Centers and Retailers (Hobelsberger, 2021) High-tech agriculture requirements and Government Policies (Boland, 2018)	AHP – Hierarchy Porcess (López-Cadavid et al, 2023)	Market Research Framework Hollensen and Opresnik, 2021) Primary and Secondary Market Research (Hollensen and Opresnik, 2021)	MACS Questionnaire Hollensen and Opresnik, 2021) MACS Matrix (Hollensen and Opresnik, 2021)	

Relationship Development Approach PHASES	1. Awareness	2. Exploration	3. Choice
	Network/ Create Social Capital (Chetty et al, 2024)	Form Strategic Alliances (Solberg and Huse, 2024)	Cooperation Agreement (Wild and Wild, 2024)

Figure 10. Conceptual Framework for Business Process including the Systemic Market Evaluation Process and Relationship Approach (Anderson and Buvik, 2002) and Steps

This discussion is focused on improving the international market segment selection process by incorporating frameworks and tools as well as organizing the data needed in the process. As suggested by the literature, a systematic approach complimented by a relationship approach can produce the highest likelihood that a firm will select the ideal location for internationalization. Systematic approaches are formal, structured, step by step processes that rely heavily on market research and data analytics. The benefits include: a decision-making process that balances the firm and the environment, greater decision making confidence, higher efficacy in new-product launches, cost reduction, and improved market share. The biggest criticism of this approach is that it may eliminate or exclude location options prematurely, and that reliable data may be difficult to obtain. The systemic approach is divided into six steps: (1) define the problem, (2) set market criteria, (3) weight criteria, (4) create list of alternatives, (5) rate the alternatives, (6) compute optimal decision (Anderson and Buvik, 2002).

The first step, defining the internationalization problem (Anderson and Buvik, 2002), requires self-reflection on the objectives, motivations, and preparedness for internationalization. It is the case company's understanding of its business model and goals for expanding into foreign markets. This provides the motivations and objectives for international market selection. This also enables the firm to select a country to enter based on macro-level analysis of market attractiveness, competitive strengths, and internationalization preparedness. This process can be aided by tools such as Business Model Canvas, SWOT Analysis, VMOST Framework, The Nine Strategic Windows, the Cage Framework, Porter's Diamond, and Porter's Five Forces. The case company also considers its target country from the perspective of opportunities and risks and ensures that it is a desirable target. Creating a formal international business plan is a way to make these ideas concrete and actionable. It will act as the charter for the international market selection project. Once the goals for internationalization have been defined and a target country has been selected, the firm can continue to the second step.

The second step, set market criteria (Anderson and Buvik, 2002), allows a company to begin micro segmentation of the potential markets with the country. The criteria list is specific to its value chain and business model, its product or service, and its industry. Simkin (1989) suggests creating a customized list of criteria attributes that is divided into market factors, competition, financial and economic, technological factors and socio-political factors. The exact list of criteria are developed by examining the characteristics of the target customer and market segment, as well as the feasibility of doing business in a market. Moore (2014) advises that the criteria should target a niche market that can be dominated and lead to future desirable market growth. There are traits specific to the grocery retail industry in the United States and Canada that should be examined. Zepeda and Nie (2012) suggest analyzing the demographics and attributes of customers most likely to purchase locally grown and sustainable produce. Hobelsberger (2021) suggests calculating potential target customer market segment size to target the ideal markets with sufficient access to distributors and retailers.

There are also resources and utilities required for high-tech indoor agriculture that should be considered. The final list must be agreed to by the executive leadership team as the most significant criteria for evaluating market attractiveness for the case company. Biancone et al (2022) recommends performing a feasibility study on production requirements and associated costs along with government policies and benefits.

In the third step, weighting criteria (Anderson and Buvik, 2002), a software tool known as Analytic Hierarchy Process (AHP) is recommended. AHP analyses criteria based on levels of importance suggested by executive level team members and turns qualitative data into measurable numeric relations. This step requires the executives to offer their opinions on the hierarchy of criteria from greatest to least significant. It then creates a weighting scale for ranking potential locations. Saatay (1994) offers a fundamental scale to guide the weighting process on a scale of 1 to 9. The full list of criteria is consolidated into nine categories and each category is then assigned a numerical rate of importance.

The fourth and fifth steps in the process involve generating a list of potential markets from within the chosen country and then rating those options (Anderson and Buvik, 2002). This list can contain as many or few options as the case company has resources to investigate. Data is gathered according to the criteria list for each potential market location. Secondary and Primary data can be conducted by the case company directly

or outsourced to a third party. Once the information for each location is collected and organized, it is added to the MACS questionnaire to be rated and measured. The final score is plotted on the MACS Matrix to determine its overall attractiveness compared to other potential markets. At the conclusion of these stages, the case company should be able to clearly identify which market locations best meet their custom list of criteria for market attractiveness. A field trip is recommended to access each potential market and production site in person.

Simultaneously, the less analytical but also strategic process of networking development is taking place. By utilizing the relationship approach, potential partners with shared goals can be identified. Social capital can be built, which will be an asset when establishing their international business. The relationship approach is divided into three stages: (1) awareness, (2) exploration, (3) choice. The awareness stage relies heavily on the objectives and motivations determined in the business plan. This ensures the targeting of like-minded potential partners with shared interests. Chetty et al (2024) suggest beginning with broad outreach to potential distributors, customers, suppliers, associations, research institutions, and service providers to search for potential synergies. If systematic macro analysis confirms that a specific country has strong opportunity for business success, then existing relationships, associations, trade fairs, and government sponsored trips can be used for networking. Solberg and Huse (2024) advise forming strategic alliances with potential partners to achieve shared strategic objectives. Finally, it is important to foster trust and loyalty in long term partnerships. Wild and Wild (2024) advise creating cooperation agreements that detail duties and contributions to avoid misunderstandings.

The conceptual framework offers an approach for building a systemic market evaluation process and relationship approach. It solves for challenges in non-systematic activities such as lack of strategy, lack of clear market insights and lack of relationships with high trust. The conceptual framework serves as a starting point for development of a systematic market attractiveness assessment and relationship process for the case company of this thesis, for its international expansion. The conceptual framework serves as guidance for this development which is discussed next, in Section 5.

5 Building Proposal for a Data Driven International Market Segment Selection Process for the Case Company

This section develops the proposal for the case company by combining the results from the current state analysis (data 1) with key findings from the best practices and existing knowledge (literature review), along with stakeholder feedback on theories on frameworks (data 2). The stakeholder feedback was obtained during data collection two. This was a combined interview with the former COO and Head of Marketing of the case company.

5.1 Overview of the Proposal Building Stage

This section presents the steps taken to develop the Proposal for this study. The proposal building began by revisiting the key insights from the current state analysis and the study objective. The current state analysis made clear that the case company lacked a formal structure to examine the company's internal capabilities and the external market factors of potential market locations. It also made clear that the case company lacked a sufficient process for measuring available market resources and other market attributes. Without these capabilities, the company cannot make an analytical assessment of regional market attractiveness within North America. The objective is to create a data driven business process to evaluate regional market attractiveness for business development in the United States.

In Data Collection 2, the proposal was presented simultaneously to two leadership team members at the case company. These same stakeholders participated in individual interviews during the current state analysis. These stakeholders were selected because they had been directly involved with the former international market selection process but would not be the final decision makers on which market to enter. They also have the respect of the CEO and Head of the Board of Directors at the case company. Their input on the proposal would increase the likely hood of implementation. A two hour workshop was conducted via Teams in September 2024 to review the proposed frameworks and models to improve the international market selection process. The first step of the workshop was to review summaries and highlights from the current state analysis with the stakeholders. Visualizations were provided to summarize the current international market selection process and the internal strengths and weaknesses of the case

company. Meaningful quotes from the interviews conducted were also shared to add context to the visualizations. The stakeholders then shared their feedback on this information and how it impacted their opinion of what is needed to improve the international market selection process.

The second step of the workshop was to present to the stakeholders a series of potential frameworks and models to help improve the international market selection process. This step was divided into three sections: internal factors, external factors, and market selection models. Two to four frameworks and models were presented for each section. The stakeholders offered their opinions on the value each tool could provide to improve the international market selection process. They described how they could envision using the tool and what purpose it would serve. They also described limitations that they found with each tool and what modifications could make a tool more useful.

The literature review suggested that internationalization for born global SME's is particularly challenging because they have limited resources and limited networks in foreign markets. They have a single commercial product that requires niche market fit in order to grow the business. To overcome these obstacles, the case company should first identify the resources they need from the market based on the internal capabilities of the company. Second, they should identify the attributes that make a market attractive based on their strategic goals and target customer profile. Finally, the case company would benefit from a strategic process to validate a country selection on a macro level, identify a short list of microsegments within the country, prioritize criteria, collect data and finally rank options.

First, *assessing the internal capabilities of the company*, was discussed as the literature review suggested creating a business plan for international market entry. The business plan should include: 1) objectives for entering a foreign market, 2) internal and external motivations for entering a foreign market, 3) preparedness for entering a foreign market, 4) value creation process, 5) transferable and nontransferable resources, 6) market entry strategy. Since no formal international business plan currently exists, several strategy formulation processes were presented to the stakeholders. These included Porter's Value Chain Model, Osterwalder's Business Model Canvas, and Lasserre's Global Strategy Framework. These models provide clarity and a shared understanding of the firm's strengths and weaknesses, value proposition, competitive advantage, transferable

knowledge and required resources. The importance of these agreed capabilities and needs was discussed, along with the significance of having shared objectives and a strategy for foreign market entry.

Second, *assessing the external market factors*, was discussed as the literature review highlighted the importance of understanding the distance between the home country and potential host country, as well as recognizing the opportunities and risks. The case company needs to understand homogenous aspects of the entire country as well as attributes specific to different regions. Some of these attributes are general to the overall business culture and some are specific to the fresh produce industry and high tech agriculture. Macro level attributes include: political, economic, operational, and competitive risks and market growth, resource, infrastructure and investment opportunities. Microlevel attributes include market volatility, distribution channels, pricing, customer demand, and utilities. Tools to analyze these attributes were presented such as Porter's Diamond, Porter's Five Forces, Target Personas, and Target Scenarios.

Third, *market segment selection models*, were discussed as the literature review suggested that a systematic approach with the integration of a relationship approach would be more beneficial to SME's than an unsystematic approach. The concept of a macro/micro level screening process and the MACS matrix were presented. These tools enable the firm to narrow the scope of their foreign market search without excluding any potential markets. They also create a specific list of weighted attributes to consider and a process for ranking the market segmentation based on the attribute scores.

By combining the internal capabilities assessment and the external market factors assessment into a screening process with MACS matrix, the case company should have in place a systematic process for validating their choice country and selecting a first market segment to enter within the country. These tactics would ensure that the new market segment selection process is based on shared goals, prioritized attributes, and reliable data. By following the process, the leadership team could feel confident in their multicriteria decision making process and present the results to their board and investors.

5.2 Findings from Data Collection 2

The three key focus areas discussed during data collection 2 are summarized in Table 18. In order to have a repeatable and data driven international market attractiveness analysis process, the case company will need to adopt frameworks to analyze internal capabilities and external market factors as well as a method to prioritize and rank information. These insights was based on input from the CSA and the CF. The stakeholders requested that frameworks and models be simple in nature and easy to implement. If they were too complex or resource intensive, then likely they would not be implemented. This discussion concluded

Table 18. Data Collection 2 Summary

Key Focus Area from CSA	Input from Literature (CF)	Input from Data Collection 2
Clearly defined internationalization strategy	<p>Step 1. Define the problem</p> <p>Business model analysis to identify the value proposition, competitive advantage, transferable knowledge, and required resources.</p> <p>Identify motivations and goals for business expansion as well as preparedness for internationalization.</p>	<p>Narrow strategy focus to one country at a time only.</p> <p>Do not use models that are too rigid or complex. Will not be easy to implement.</p> <p>Models that seems valuable at this stage: Business Model Canvas, SWOT Analysis, VMOST Framework, The Nine Strategic Windows, Cage Framework, Porter's Diamond, Porter's Five Forces.</p>
In-depth market intelligence	<p>Step 2. Set macro and micro level criteria – external market attributes and required resource attributes.</p> <p>Step 3. Weight criteria</p> <p>Step 4. Generate list of alternatives</p> <p>Step 5. Rate alternatives</p> <p>Step 6. Compute optimal decision</p>	<p>Ensure attributes are not too broad in scope.</p> <p>Data collection must be organized and reliable.</p> <p>Target scenario tools align well with goals and objectives.</p> <p>The process for weighting criteria must be objective and reliable.</p>

Strategic partnerships with high trust	Add a relationship approach to the systematic market selection model to build social capital in a cohesive and repeatable process.	<p>Incorporate target personas to develop buyer's journey</p> <p>Map relationships to understand the whole customer organization and all key players</p> <p>Focus on building relationships in micro regions with greatest potential.</p>
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As seen in Table 18, the stakeholders expressed overall high interest in the systematic approach to international market segment selection. They had strong opinions about particular frameworks, such as the Porter Value Chain Model, which seemed to rigid and complex. However, overall they felt that the overall process of a screening method and MACS matrix would be beneficial. They also found certain frameworks and tools to be valuable in organizing insights on internal capabilities which would support a shared international business plan with clear goals and objectives. Finally, the stakeholders were interested in combining a systematic data-driven and relationship approach to analyzing market attractiveness. The stakeholders provided direct feedback to support these conclusions.

5.2.1 Clear Internationalization Strategy

Both stakeholders were unsurprised by the feedback from the current state analysis. They found it useful to see the current international market selection process presented in a flow chart. They also felt it was useful to see the case company's strengths and weaknesses displayed in a relationship visualization. They said that the direct quotes from both internal stakeholders and external parties confirmed their assumptions about their international market selection process. One stakeholder said, "We have always been all about the tech. We have come a long way to be able to receive this feedback and take action on it."

From the CSA data, the stakeholders recognized the shared frustration in the lack of strategy, goals and objectives for international market entry. They felt that this was obvious to potential partners in the market as well and was hindering them from building strong relationships. One stakeholder commented, "We have been a technology

company and a technology sales company. Now we have to be a production company. The tech drives production and the consistent, safe, high quality product drives sales. We need to refocus our business plan around that.” Both stakeholders agreed that utilizing Osterwalders’s Business Model Canvas and Hisrich’s International Business Plan would set the right foundation for the international market segment selection process. “We would benefit from high level strategic thinking like this that incorporates the full business process and all partners.” They also felt that taking time to consider the firm’s unique abilities, primary and support activities, and needed resources would help define competitive advantage and market needs.

The stakeholders did not feel that Porter’s Value Chain Model and Lasserre’s Global Strategy Framework would improve their situation. “Porter’s Value Chain Model over simplifies the situation for me. It doesn’t breakdown the sales or production processes enough to be worthwhile. And it doesn’t account for the volatility in the industry or how significant our partnerships with external stakeholders is. We aren’t just targeting one buyer. There has to be a mix. Plus seasonality.” Regarding the Global Strategy Framework, they felt the company was too young and was not well established enough to be considering a world market perspective. “There is no realistic opportunity for us to consider our global presence unless we succeed in a few key markets first. The regional aspect could be important at some point, but it’s too broad of a focus for now.”

5.2.2 In-depth Market Insights

The stakeholders were very interested in a market screening process that validated the macro elements at a country level and then narrowed the focus to key market segments within the country. They felt that the process they were currently using was too broad and also required too many resources to research state by state. “It’s exhausting to think about doing this work for every state and province. It’s a lot of information to gather for every potential market.” The stakeholders agreed that their first foreign market selection must provide leverage for later expansion. They understood that evaluating the country at a macro level first would identify key potential regions to fulfill this requirement. They could narrow their focus to the key target markets which would have they could target “a very specific niche market where you can dominate from the outset, drive your competitors out of the niche market, and then use it as base for broader operations.” (Moore, 2014, p.78)

The stakeholders found target persona development tools and target niche market tools most appealing to identify the variables for market attractiveness. They felt these needed to be defined first before other market frameworks could be applied. They also wanted to ensure that the list of variables was comprehensive based on the needs of their specific industry and product type. The layout of the MACS Matrix was also very desirable. They liked the straightforward measuring and ranking process. “This visual is really beneficial.” They wanted to understand how to prioritize the factors and how to ensure that they gathered the most accurate data. “The weight of each element, meaning the importance given to each element, is important. Who will define that?” “Agreed – you can go in the wrong direction very quickly if this element is wrong from the start.”

5.2.3 Strategic Partnerships with High Trust

The opportunity to overlap a relationship approach to the systematic data driven process really appealed to the stakeholders as a holistic way to analyze market attractiveness. The feedback from the target customers resonated with the stakeholders and they agreed that they would need social capital to enter their preferred target market. “I think that long term vision and building relationships with retailers for the long run are really important... We are trying to solve supply chain issues for retailers. We need to build trust with them.” They were also interested in expanding their knowledge of the fresh product ecosystem. This would mean mapping relationships between target retailers, their suppliers and their customers. “We need to understand how current suppliers are working with the retailers such as what kind of deals, incentives and promotions they offer.”

Summing up, based on Data 2 (a new round of inputs from stakeholders) described above, the Initial proposal for evaluating regional market attractiveness in North America was developed based on three frameworks which combine to create a thorough and repeatable process. The three frameworks are: an international market entry business plan, a systematic market evaluation process, and a relationship approach to market selection. The international market entry business plan is a collaborative effort agreed to by all levels of the organization. It is the foundation for the internationalization process and the strategic focus for the entire company. Once this is completed, the second and third frameworks are implemented simultaneously. The systematic market evaluation process is a step by step effort to solve for the problem defined in the business plan. The

steps are: set criteria, weight criteria, generate list of alternatives, rate alternatives, and compute optimal decision. The relationship approach compliments the systematic process through three phases: awareness, exploration, and choice. Table 19 demonstrates how the three key weaknesses of the case company's current market attractiveness evaluation process are addressed in the proposal.

Table 19 - Data 2 as part of the proposal building stage

CSA	CF	Proposal
Lack of Strategy	Develop an international business plan, map current business model, analyze risks and opportunities related to the target country	International business plan framework, business model canvas, VMOST framework, CAGE framework, Opportunities and risk table
Lack of Clear Market Insights	Implement a Systematic Market Evaluation Process	Systematic Market Evaluation Framework: <ol style="list-style-type: none"> 1. Define the Problem 2. Set Criteria for Evaluation 3. Weight Criteria 4. Generate List of Alternatives 5. Rate Alternatives 6. Compute Optimal Decision
Lack of trustworthy relationships	Implement a Relationship Approach to Market Selection	Relationships Development Framework to build social capital: <ol style="list-style-type: none"> 1. Awareness 2. Exploration 3. Choice

As seen in Table 19, the key weaknesses are lack of strategy, lack of clear market insights and lack of trustworthy relationships. Improvement opportunities were presented to stakeholders in data collection 2, and feedback was provided. The Proposal is presented below; it incorporates the feedback and offers three frameworks that a best suited to improve the targeted weaknesses.

5.3 Initial Proposal for Evaluating Regional Market Attractiveness

The Initial proposal for evaluating regional market attractiveness in North America contains three elements: an international market entry business plan, a systematic market evaluation process, and a relationship approach to market selection.

5.3.1 The International Market Entry Business Plan

The purpose of the International Market Entry Business Plan is to create strategic alignment at all levels of the case company. This will address one of the key concerns uncovered in the current state analysis: lack of clear strategy for internationalization. At a minimum, the business plan will include an analysis of the international business opportunity at a country level, operational structure, financial model, and goals for internationalization. The operational plan will include the organizational structure, product and service descriptions, market entry strategy and market entry plan. A visual representation of this plan through a business model canvas or other tool will also enable the company to identify its internal capabilities, its value proposition for customers in the new market, and the resources it requires from the new market. Tables 20 and 21 and Figures 11, 12, and 13 represent key tools to support strategy alignment.

Table 20 International Business Plan (Hirsch, 2016)

I.	Title Page, Table of Contents, Executive Summary
II.	Introduction
III.	Analysis of Business Opportunities in the United States
	A. Company's Current Position and Business Model
	B. Opportunities and Risks in the Target Country
	C. Target Customer Persona
	D. Value Proposition/ Competitive Advantage
	E. CAGE Framework – cultural, administrative, geographic, and economic distance between the home country and target country
IV.	Operation of the Proposed Business
	A. Organizational Structure
	B. Facilities Requirements
	C. Management Information Systems
	D. Market Entry Strategy
	E. Marketing Strategy Plan
V.	Financials
VI.	Appendix

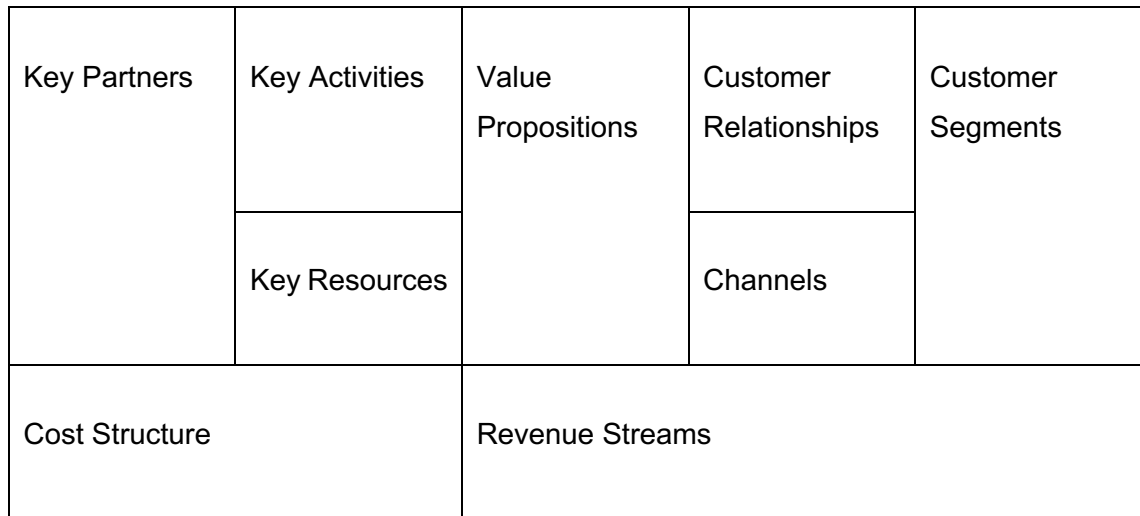


Figure 11. Business Model Canvas (Osterwalder, 2010)

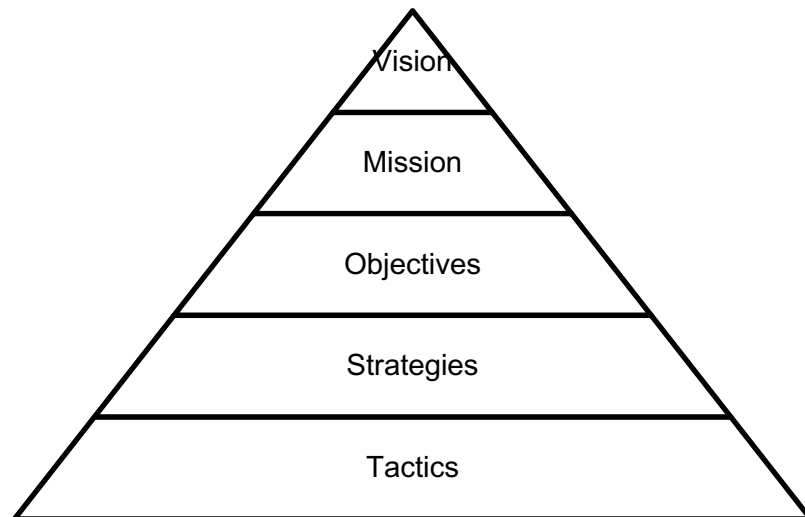


Figure 12. VMOST Framework (Hague, 2023)

C	Cultural Distance
A	Administrative Distance
G	Geographic Distance
E	Economic Distance

Figure 13. CAGE Framework (Lasserre, 2018)

Table 21. Opportunities and Risks (Lasserre, 2018)

Opportunities	Risks
<ul style="list-style-type: none"> • Market Size • Market Growth • Quality of Demand • Natural Resources • Human Resources • Infrastructure and Support Industries • Competitive Climate • Competitive Structure • Investment Incentives 	<ul style="list-style-type: none"> • Political (Shareholder, Employee, and Operational Exposure) • Economic (Volatility, inflation, input costs, exchange rates) • Operational (infrastructure, regulations) • Competitive (corruption, cartels, networks)

As seen in Figures 11, 12, 13, and 14, and Table 20, these frameworks require the company to reflect on the known capabilities and resources within their existing structure. It then allows them to envision what their company would look like in the new target market and where gaps may occur. This process will set the company up for success when gathering information on potential regions within the target market on evaluating the attractiveness of those regions. It will also ensure that there is alignment at all levels of the organization on the strategic goals for entering the new target market.

5.3.2 The Systematic Market Evaluation Process

Once the international market entry business plan is in place, the company can start the systematic market selection process. Figure 14 represents the flow of steps in this process. The process will require engagement from key stakeholders to complete.

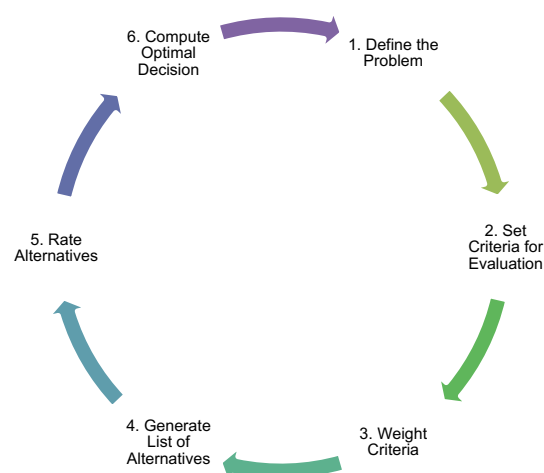


Figure 14. Systemic market evaluation process (Anderson and Buvik, 2002)

As seen in Figure 14, the next step after defining the problem is to set the criteria for evaluation. This is done by assessing the resources required in the market as well as the desirable characteristics of the target customer.

First, the company must identify the regions that it will rate and compare. Based on the structure of US census bureau and other government statistics, it is helpful to divide the country into nine regions: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain and Pacific. Some of these regions will be ruled out immediately based on low population density, limited grocery retail suppliers and low fresh produce turnover numbers. This includes Mountain, West North Central, and East South Central. The remaining six can be included in the initial assessment.

Next, the company creates the list of criteria that it will measure each region on. These criteria will be specific to high-tech indoor agriculture production and fresh produce sales. The criteria will be organized into nine categories of market attractiveness and nine categories of competitive strength for scoring. It is important that the criteria takes into consideration market factors, competition, financial and economic conditions, technological factors, and socio-political factors. As a high tech growth company, they will also look for a region where there is a sufficient number of potential customers with a strong reason to buy, sufficient competitive environment without oversaturating the market, attainable pricing targets, opportunity to take market share and the ability to influence adjacent markets for continued growth.

The weighting process take place following the development of the eighteen total criteria. Analytic Hierarchy Process (AHP) can be used to weight the criteria in complex, multi-attribute decision situations. Several knowledgeable leadership team members will use AHP software to give an intensity of importance score to each criterion. This process provides an objective method for assigning greater significance to some criteria over others.

The next step is to gather sufficient data on the eighteen criteria. This is done through primary and secondary research based on available resources. The data for a specific target market is organized into the nine criteria. Each criteria is given a score from one to five based on its attractiveness. – one being very poor and five being very good. The

scores are given by knowledgeable leadership team members and based on reliable data. The scores are placed into the MACS Questionnaire table and weighted based on the AHP software results. A final numerical score is computed based on the market attractiveness and the relative competitive strength of the company in that market. The market is placed on a MACS Matrix with the market attractiveness score as the X-axis and the competitive strength score as the Y-axis. After this work is completed for all potential target markets, the markets that represent the best opportunities will appear in the top left quadrant of the matrix. A final decision can be reached based on this reliable and fact based analysis. A site visit should be conducted before any commitments are made.

5.3.3 The Relationship Approach to Market Selection

The relationship approach to assessing market attractiveness is done simultaneously with steps two through six of the systematic process. Once the international market expansion problem has been defined, the company can get to work on strengthening its network and finding potential strategic alliances. Figure 15 represents this approach as designed by Anderson and Buvik (2002)



Figure 15. Relationship Approach (Anderson and Buvik, 2002)

The relationship development process is done through outbound inquiries, social media platforms, associations and events. This effort will support the market attractiveness assessment process in several ways. First, it will assist in step four of the systematic process with primary research on the target market. This will help to identify key potential customers, suppliers and other support institutions. It will also enable the company to map existing relationships and alliances. Next the company will be able to identify

potential strategic alliance partners based on shared goals. Finally it will help the company to build social capital, reputation and trust within the target markets to support its long-term goals for internationalization. The relationships approach will provide greater context to secondary data uncovered in step four of the systemic process and will also ensure that the company has a strong network in its optimal market.

5.4 Summary of the Initial Proposal

The Initial Proposal is shown in Figure 16 below. The figure shows the combination of the systematic data-driven regional market attractiveness process with the simultaneous relationship approach. The three main elements of improvement over the current process are: a clearly defined market entry strategy, in-depth market intelligence gathering, and strategic partnerships with high trust. Figure 16 illustrates the process for defining the internationalization problem and along with the proceeding five steps to set criteria for evaluation, weight criteria, generate a list of alternatives based on primary and secondary data, rate the alternatives and then make an optimal decision. Simultaneous with steps two to five is the relationship approach which is divided into the awareness phase, exploration phase and finally the choice phase. This systematic data-driven process with simultaneous relationship approach were presented to the CEO and Board Chairman of the case company for validation. The response from the CEO and Board Chairman to the presentation are described in the next section.



Figure 16. Initial proposal: A simultaneous systematic data-driven regional market attractiveness process and relationship approach

6 Validation of the Proposal

This section discusses the proposal validation stage. First, the purpose and process for validation are examined. Then the results from the validation presentation to the case company key stakeholders are provided. Lastly, the final proposal is presented.

6.1 Overview of the Validation Stage

The validation presentation was conducted in an online meeting with key case company stakeholders on 12 March 2025. The presentation was made to the CEO of the case company and to the Board Chair. The purpose of the presentation was to offer a data-driven business process that would improve the company's current process for evaluating regional market attractiveness in the fresh produce industry in North America.

It was previously determined in the CSA that the case company lacked a clearly defined market entry strategy, in-depth market intelligence, and strategic partnerships with high trust. It was also determined during data collection that tools and frameworks used in the evaluation process must not be too rigid or complex. The processes must be based on organized and reliable data which is weighted objectively. It must also map relationships within regional segments to create a full picture of fresh produce industry ecosystems.

A proposal for a systematic data-driven process with simultaneous relationship approach was presented in this third round of data collection. This included a six step systematic market assessment process along with a three phase relationship development approach. Each step and phase included tools and frameworks to guide actionable items.

6.2 Developments to the Proposal

Developments to the proposal were minor, however the stakeholders felt there would be an upcoming opportunity to put the process into practice. Table 22 shows the key

elements of the proposal and the feedback received from the stakeholders in data collection 3.

Table 22. Key stakeholder feedback to the initial proposal (Data 3)

	<i>Elements of the Initial proposal</i>	<i>Validation feedback topics</i>	<i>Feedback from the stakeholders</i>	<i>Development to the Initial proposal</i>
1	Clearly Defined Market Entry Strategy	A) The North American Market Entry Strategy was not clearly defined.	<p>“Quite logical. No surprises.”</p> <p>“It aligns with my understanding of the market evaluation process. We never properly developed the strategy.”</p>	Mutual agreement on this weakness. No need for changes.
		B) Tools and Frameworks for Strategy Planning	<p>“These tools would be interesting to use in a real life case”</p> <p>“I think this is a good way to document where we are at a what we need to know to move forward in the US/CAN market.”</p>	Mutual agreement on including these tools and frameworks in the first step of the process. No need for change.
2	In-depth Market Intelligence	A) Determine key attributes for market attractiveness and conduct primary and secondary research based on those attributes	<p>“This process customizes the tool for our industry. It is not too broad in scope or generic”</p> <p>“it would help if you have really limited financial resources, as we had so it would, be targeted work. Right from the beginning, I think if we would have been showing this to the investors it would have helped us attract more investments. If I look at from the investor mind, it's systematic and you have data to support your claims.”</p>	Mutual agreement on including these tools and frameworks in the first step of the process. No need for change.
		B) Weight and Rate the criteria objectively	The CEO would like to test this weighting and rating process with an early stage project in North America. There are	This element could be tested as is and then improved upon

			so investors on board already who could provide the right expertise.	in the future if needed.
3	Strategic Partnerships with High Trust	A) The Retailer was not adequately accounted for previously	“I can see now that understanding the customer means everything to the operational model. As operators, we need strong communication with the retailers.”	Mutual agreement on including relationship development in the process. No need for change.
		B) Participate in events, build networks, map ecosystems within the industry.	<p>“This sort of business is like a marathon. It is not about chasing deals.”</p> <p>“There is a lot of risk involved in this business. We need partners who understand the whole journey in the high tech agriculture operating model.”</p>	Mutual agreements on the tactics to build networks and identify strategic partners. No need for change.

As seen in Table 22, the validation process focused on three key elements: clearly defining the market entry strategy, gathering in-depth market intelligence, and building strategic partnerships with high trust. Each of these elements were identified as a weakness in the CSA and further developed during Data Collection 2.

Regarding the first element, the stakeholders agreed that the internationalization strategy had not been clearly defined in the former process. They agreed that this is a critical first step in evaluating the attractiveness of a new international market. The stakeholders considered the frameworks and tools presented to assist in clearly defining the strategy. They agreed that all frameworks and tools presented would be valuable and would not create a challenge for implementation.

The stakeholders found the second element to be of critical importance to an effective market attractiveness evaluation process. They agreed that the previous process for gathering and organizing data could be improved upon. The stakeholders commented that the proposed steps would create a focused, objective and reliable process. They suggested that the tools for selecting, weighting and rating criteria could be tested in the next project and improved upon if needed.

As with the first two elements, the stakeholders also agreed that building strategic partnerships with high trust had previously been a critical weakness for the case company. In retrospect, they recognized that strong relationships and good communication with retailers is critical to the success of a high-tech agriculture operator. The stakeholders agreed that the relationships approach should be given high importance in the market attractiveness evaluation process. They said that business expansion into new foreign markets could only be successful if they collaborated with partners who understood the risks and were committed to long term commitments.

The stakeholders confirmed that the proposal appeared to be valid and was sufficient to implement in an upcoming project in the North American market. Utilizing the business process in practice would enable the company to make further developments to the process as needed.

6.3 Final Proposal

The final proposal for a data driven business process to evaluate regional market attractiveness for entering the fresh produce industry in North America was built upon the findings from the CSA, the use of the conceptual framework, and stakeholder feedback in Data Collection 2 and Data Collection 3.

The final proposal is presented in a two part business process, which is illustrated in Figure 17. As seen in Figure 17, the business process includes two simultaneous processes. The main objective is to select the most attractive regional market in the fresh produce industry in North America for the case company to enter. This final selection is based on relevant and reliable key criteria, which has been objectively weighted, rated, and ranked. The key criteria is specific to high tech agriculture operations in the fresh produce industry in North America. The criteria, weighting, rating and ranking is also based on the goals of internationalization, the internal capabilities, and the risks and opportunities specific to the case company. In addition to these highly systematic and data-driven elements, the process includes a relationships development approach. This approach is based on the ongoing development of relevant networks and relationships to uncover opportunities for strategic alliances within the potential regional market segments.

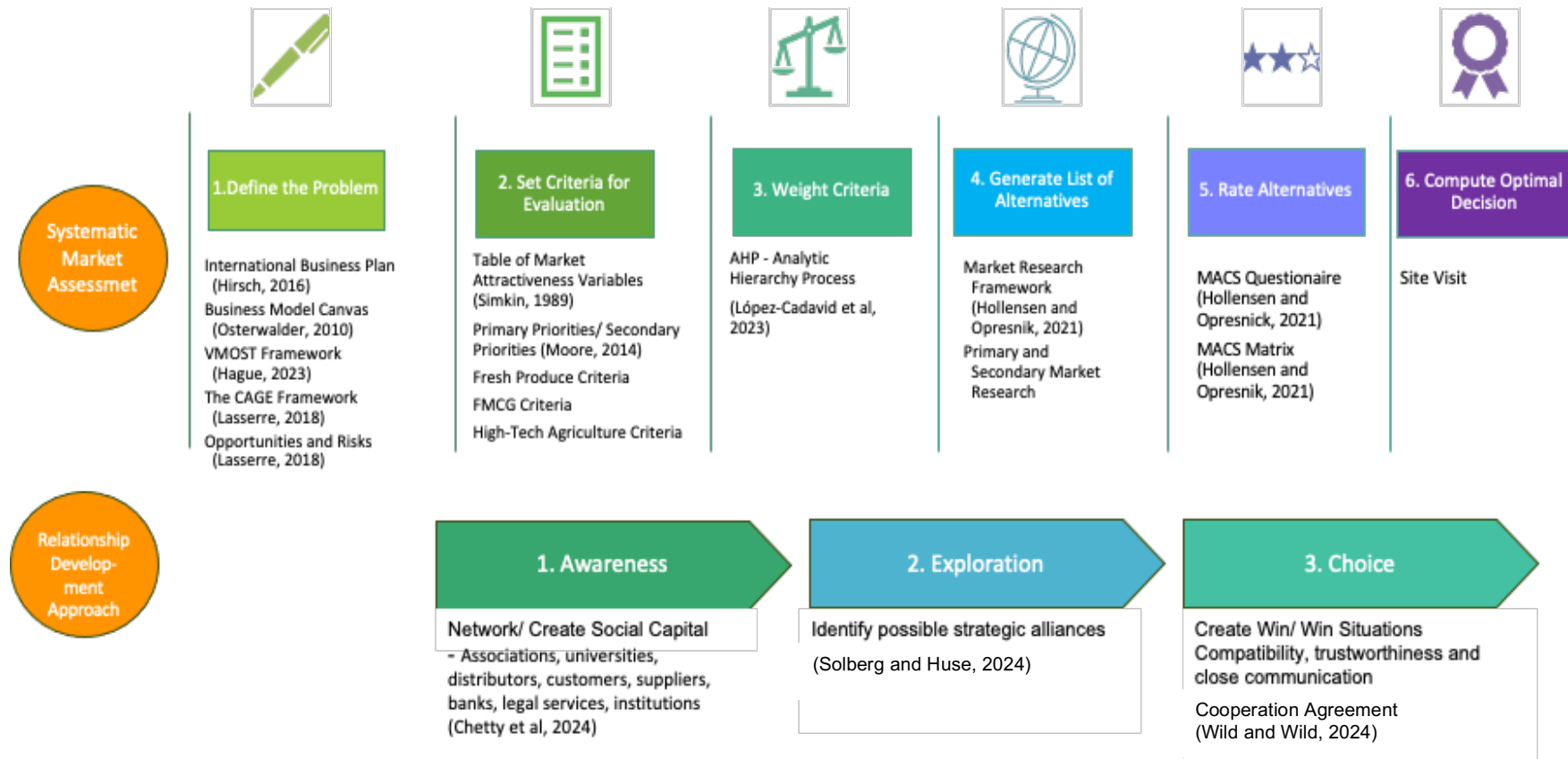


Figure 17. Final proposal for the improved market attractiveness evaluation process

7 Conclusion

This section summarizes the key findings of this study and suggests further steps for the case company. First is the executive summary, followed by managerial implications, then thesis evaluation and finally closing words.

7.1 Executive Summary

Controlled Environment Agriculture has great potential to strengthen the global food system. To succeed, high-tech agriculture companies require sustainable technology innovation and effective business models. The case company has successfully designed and operated highly controlled vertical farm technology platforms in the Nordic region. However to expand globally, they need a systematic process for analyzing the attractiveness of international markets. The selection of a suitable international market is a critical step in ensuring their business model will be successful. Therefore, the objective of this Master's Thesis is to design a systematic, data driven business process to evaluate regional market attractiveness for entering the fresh produce industry in North America.

The research strategy used in this thesis is applied action research strategy. The research design follows the 7-gate system. The key stages of the gate system are: current state analysis, literature review, proposal building, and validation. The data was collected through internal document review, online interviews and online workshops. The online interviews and workshops were conducted with key stakeholders in the case company as well as high-tech agriculture industry experts and fresh produce retail experts.

Based on the results of the current state analysis, the three most significant weaknesses in the current market assessment process were identified. Those were a clearly defined internationalization strategy, in-depth market intelligence, and strategic partnerships with high trust.

The literature review focused on best practices to strengthen these weaknesses in the market assessment process. This included frameworks for developing an internationalization strategy, tools for listing, weighting and ranking key criteria, and an approach to relationship development. A variety of potential tools and frameworks were presented to key stakeholders to judge their usability at the case company. The final proposal is based on two simultaneous processes for regional market assessment and the frameworks to complete each stage or phase of the processes.

The final proposal is a combination of a systematic data-driven regional market attractiveness process with a simultaneous relationship approach. The three main elements of improvement over the current process are: a clearly defined market entry strategy, in-depth market intelligence gathering, and strategic partnerships with high trust. The process begins with defining the problem, which is the first step of the systematic market assessment. The second step is to create a set of criteria for evaluation and the third step is to weight the criteria using Analytic Hierarchy Process software. These steps occur simultaneously with the first phase of the relationship development approach, which is awareness. This phase includes building a network and developing social capital in potential markets. Step four of the systematic market assessment is to generate a list of region alternatives through primary and secondary market research. This coincides with the exploration phase of the relationship development approach. This phase focuses on identifying potential strategic alliances within newly formed networks. The fifth step in the systematic market assessment is to rate the alternatives with the use of the MACS Questionnaire and MACS Matrix. The final step is to compute an optimal decision based on the ratings of alternatives. This coincides with the final phase of the relationship development approach which is choice.

The combination of these two processes ensures that the optimal region selected will be based on data driven criteria as well as high-trust relationships with strategic partners to create win/win situations. The dual process is iterative which means that it can be repeated to assess additional new markets in the future. Change management is also possible during the dual process. If the internationalization strategy or the criteria changes, for example, then the process can revisit the necessary stage and resume from there.

The proposal was validated during an online presentation to the case company CEO and Chairman of the Board. The proposal was positively received and was approved for future use. The frameworks in the proposal will be tested in the next North American regional market assessment.

This Master's Thesis revealed the underlying challenges in the case company's current regional market assessment process. These challenges are common to small and medium sized born global companies which require production facilities in their new international target market. The proposed dual process for assessing regional market attractiveness enables the case company to perform tasks in line with the clearly communicated internationalization strategy. It also ensures that the market assessment is based on reliable, objective and relevant data. Finally, the optimal market selection will include a region in which the company has developed social capital through a network of partners and identified strategic alliances based on high trust relationships.

7.2 Managerial Implications

The dual process of systematic market assessment and relationship development approach is ready to be implemented when the case company resumes its strategy to enter the North American fresh produce industry. The process addresses all three weaknesses identified in the CSA and includes the recommendations from the stakeholders. The process can be implemented once a process owner has been identified. Team members who will contribute to the various steps and stages are needed, along with the buy-in of leadership team members.

A timeline can be established for the process with a target end date. Scope and budget for each step and stage should be established prior to commencement. The process is agile and can be modified in real time. If the goal of the strategy changes or an unexpected factor arises, then the process can begin again from a previous stage.

Finally, relationship capital is likely not lost in the iterative process if strong communication and trust are prioritized. Likewise, if the weighting method is deemed to be inaccurate, then other methods can be tested as replacements.

7.3 Thesis Evaluation

The objective of this Master's Thesis was to create a systematic, data-driven business process to evaluate regional market attractiveness for entering the fresh produce industry in North America. The expected outcome was such a process that could be immediately implemented by the case company. At the start, it was known that a process for evaluating regional market attractiveness existed, however it was informal. The case company had recently changed its business model and the market attractiveness evaluation had only been conducted once for the new model.

Finding stakeholders and highly qualified experts willing to be interviewed for the current state analysis was not difficult. The four internal company stakeholders were eager to discuss their frustrations and perceived challenges with the internationalization process. However during each conversation it was revealed that a deeper concern relating to international strategy was present. This led to deep literature review on internationalization theory to understand how this topic applied to market attractiveness evaluation and if it could be solved for in a systematic process. Greater research could be done on this particular aspect of the internationalization process and a more in-depth assessment could be made by the case company relating to financing models, production resources and sales channels. For the purpose of this Master's Thesis objective, it must be assumed that these elements are known.

It was also easy to identify six external, highly qualified experts on high-tech agriculture and fresh produce retail who were willing to share their insights on the current state. During the interview process, a common concern about developing high-trust relationships was revealed. This was an unexpected development as it was previously assumed that the market attractiveness evaluation should be based solely on reliable data. It became apparent that social capital and long term relationships are needed to be successful based on the nature of the fresh produce industry and the requirements for high tech agriculture production. This influenced the literature review in hopes of finding theories and best practices that incorporated relationship development in a reliable and systematic way.

For the proposal building, feedback was needed from case company stakeholders to determine which frameworks and tools would be most valuable and easiest to implement.

Once the conceptual framework was established, combining a systematic data driven process with a relationship approach, the stakeholders were asked for their opinions on various tools. This proved to be more challenging than expected as the stakeholders did not feel that traditional strategy development tools and market evaluation measure would be suitable. The greatest concern was that some of the tools were too rigid or complex to implement for a small organization. They were also concerned that the simplified evaluation processes were too limiting in scope and ruled out potential regions too quickly. This conflict was resolved by a return to literature review and a search for alternative strategy frameworks and market evaluations tools. The tools proposed in the final proposal will need to be tested to ensure they work as intended for the case company in the target international market.

7.4 Closing Words

This thesis emphasizes three important elements in assessing regional market attractiveness in the North American fresh produce industry. The first element is clear communication of a well-planned internationalization strategy. The second element is the collection and analysis of relevant, reliable and objective in depth market intelligence. The third element is a network of strategic partners which prioritizes high trust and goal alignment. This study demonstrates how these elements can be incorporated into a systematic data driven business process.

To achieve international success in the fresh produce industry, a high-tech agriculture company must account for external market factors and internal capabilities that create opportunities and risks for the company. Regional market attractiveness will be based on in depth knowledge of relevant criteria, alignment with internationalization goals, and the strength of the company's social capital with key strategic partners. The systematic data driven business process proposed in this thesis will improve the case company's ability to evaluate regional market attractiveness for entering the fresh product industry in North America.

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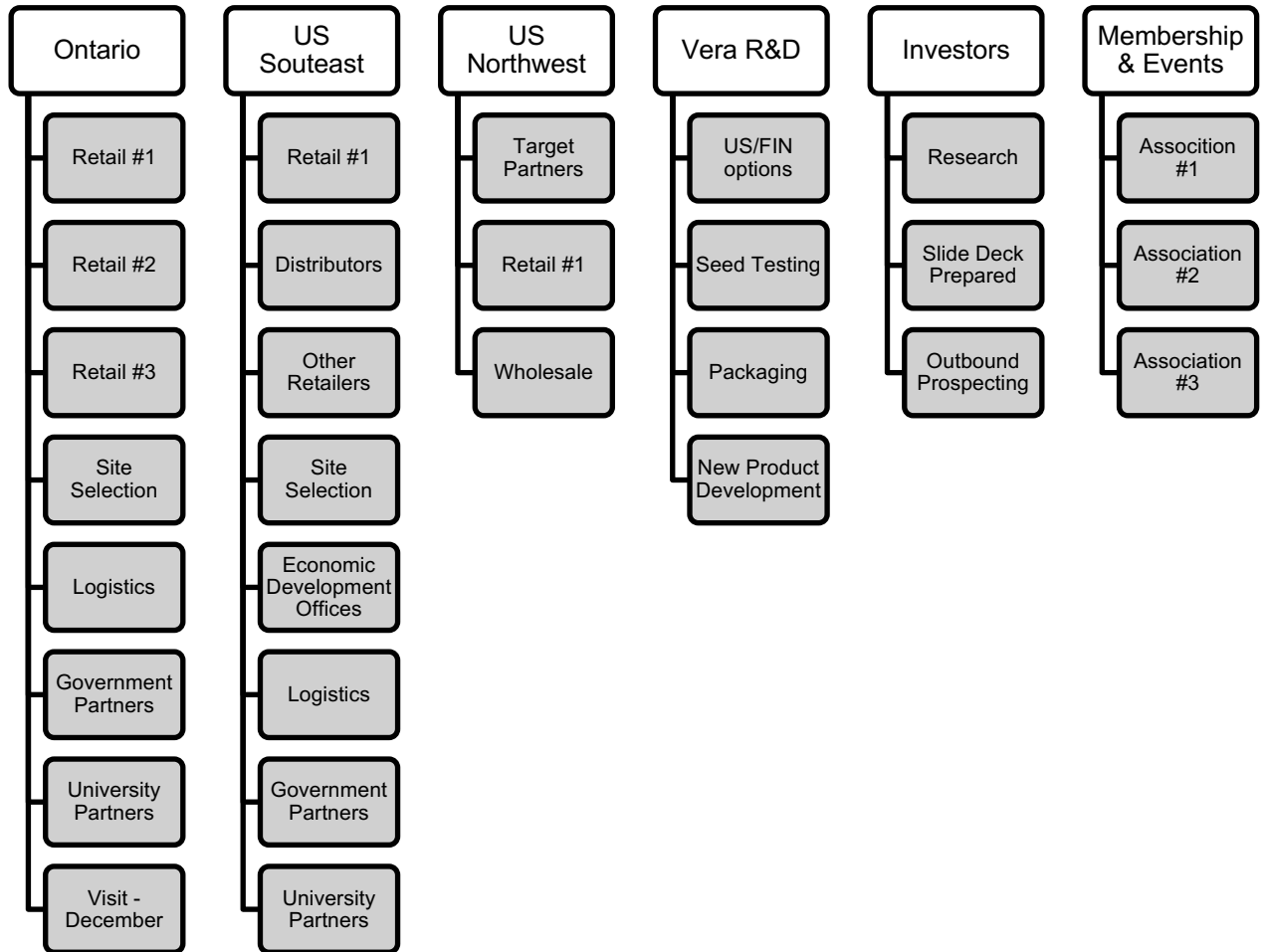
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Appendix 1. Case Company- North American Business Development Key Activities Q4 2023



Appendix 2. Case Company – Five Forces Analysis April 2023

Five Forces	
Competition	<ul style="list-style-type: none"> • CEA market is in a growth/ stakeout stage. There is a global emphasis on sustainability and improving agriculture which is driving innovation in the space. However there is an existing marketplace with products sold at very low margins. VC backed and publicly funded companies are closing or filing for bankruptcy at a high rate because they cannot bring their farms to cash flow positive. • Northeast CEA brands: Bowery, Gotham Greens, Soli Organic, Little Leaf, Bright Farms, Aerofarms, Wilder Fields, Edible Gardens, 80 Acres • Conventional brands: Tanimura & Antle, Fresh Express, Dole, Nunes/Foxy, D'Arrigo/ Andyboy, Mann, Mastronardi, Taylor Farms
Supplier Power	<ul style="list-style-type: none"> • Limited due to the variety of suppliers available and the narrow margins for profitability • The produce industry is long standing based on relationships and involves several layers of partnerships (wholesaler, distributor, broker, etc.) • Biggest opportunities to develop power: differentiated product, best price, brand loyalty from food service buyers or consumers
Buyer Power	<ul style="list-style-type: none"> • Food Service: Buyer has significant power to demand what the distributor offers. If they are a large enough chain, then they can dictate what the distributor must carry/ supply. All buyers have the power of choice and control over their menu offerings. • Grocery Retail: Buyer has significant power to choose between a variety of retailers: grocery, supermarket, e-commerce. They can also refuse to purchase if the price point is too high or the quality diminishes.
Threat of Substitution	<ul style="list-style-type: none"> • CEA is threatening conventional growers, which means they will likely explore opportunities to join the CEA space but can afford to wait until the technology is proven and there is a minimum level of product adoption. • When offering a commodity product, then there is easily opportunity for substitution from other providers
Threat of New Entry	<ul style="list-style-type: none"> • Barriers to entry include: a profitable business plan based on low margins and high energy costs, building brand awareness for a commodity product, breaking into a traditional industry with long standing relationships

Appendix 3. Case Company – North American Business Development Tactical Process April 2023

- Site Selection – identify key regions of greatest opportunity to construct vertical farms (SuperFarms)
 - Canada – Ontario Province, US – Northeast, and US – Southeast
 - Create a matrix to score and rank locations
 - Best partnership opportunities, logistics, government friendliness, sales opportunities, competition
 - Most food service and retail distribution centers
 - Beneficial incentives, tax rates, permits/ zoning
 - Work with Economic Development Offices to gather data
 - Contact food service and retail distribution centers and wholesalers
 - Current sourcing for lettuces and herbs – opportunities and challenges
 - Experience with CEA
 - Produce items of greatest interest
 - Process for testing a new supplier
 - Contact grocery retailers
 - Consumer interest in local/CEA/hydroponic produce, current suppliers, current and future demand in volume and price
 - Identify greatest opportunities for LOI and offtake agreements
 - Identify potential logistics partners
 - Identify potential regional restaurant chain partners
 - Next Steps
 - Send sell sheets and presentation to all potential partners
 - Prepare onsite visits in June and July

Appendix 4. Data Collection 1- Case Company and Industry Expert Interview Questions

Interview – Case Company and Consultants April/ May 2024	
Describe the strategic orientation of the company from your perspective?	
Describe the organisational structure and business culture of the company from your perspective?	
How has the company been able to exploit market info?	
How has the company been able to measure and control the full costs of serving customers?	
How are the following external market factors addressed?	<ul style="list-style-type: none"> • PESTEL Analysis • SWOT Analysis • Market Size and Growth Potential • Competitive Landscape Analysis • Market Accessibility and Infrastructure • Cultural and Social Factors • Distribution Channels and Supply Chain • Market Risk Assessment • Technology and Innovation Landscape • Market Segmentation and Targeting
How are the following internal competencies addressed?	<ul style="list-style-type: none"> • Inbound logistics • Operations • Outbound logistics • Sales and marketing • Communication with Stakeholders - investors, board, employees, customers • Firm Infrastructure • HR Management • Tech Development • Procurement
What elements do retailers prioritize in a partnership with fresh product suppliers?	<ul style="list-style-type: none"> • Packing, logistics, • safety, quality, • extended shelf life, new formats • Pro-active relationships across all aspects of business • Complete electronic integration • Information sharing • Ability to assist in shaping customer views of the segment • Customer specific investments • Financial stability • Supply chain management - integrity and efficiency • Cost management • Product Range Management • Promotion and Merchandising
What areas of market intelligence should be studied further?	
What questions would you ask a retailer about their perception of high tech indoor agriculture?	

Appendix 5. Data Collection 1 - Retailer - Interview Questions

How can CEA growers create value for retailers and for consumers?	
What should growers be thinking about/ prepared with before they pitch to retailers?	
Buyer Perceptions of High-Tech Indoor Ag	<ul style="list-style-type: none"> • Describe your level of understanding of different technologies/ growing methods. • What do you see as the benefits of CEA? • Which crops are you most interested sourcing from CEA? • How do you segment traditional ag vs organic vs CEA? • How do you envision market penetration in ten years? • What are the biggest mistakes that high-tech ag grows make when approaching buyers?
Consumer Perspective	<ul style="list-style-type: none"> • What do high-tech ag growers get wrong about selling to consumers? • What consumer insights should growers be informed on? • What should growers understand about your store and customer segments? • What role does ESG/ sustainability play? • What value does a grower bring to help the retailer connect with customers? • Can you provide examples of the steps you take determine when to introduce a new product to your stores?
Describe how you prioritize the following attributes of a retailer/ supplier partnership?	<ul style="list-style-type: none"> • Packing, logistics • Safety, quality, • Extended shelf life • Pro-active relationships across all aspects of business • Complete electronic integration • Information sharing • Ability to assist in shaping customer views of the segment • Customer specific investments • Financial stability • Supply chain management - integrity and efficiency • Cost management • Product Range Management • Promotion and Merchandising • Strategic orientation with Retailer

Appendix 6. Data Collection 2. Extract of Field Notes from Workshop with Case Company COO and Head of Marketing

<p>Date: September 19, 2024 Duration: 1 hour, 17 minutes Mode: Teams Online Meeting Platform</p>		
SUBJECT	INFORMATION PRESENTED	RESPONSES
Current State Analysis: Review of responses from Data Collection One	Summaries of feedback and direct quotes were shared from the interviews with the case company, industry experts and retailers	<p>“It’s what I was expecting to hear.”</p> <p>“The buyers always emphasize things other than price. Like the last item mentioned about the long term vision. Retailers are in it for the long run, I think that is really important.”</p> <p>“We are trying to solve retailers’ supply chain issues and I really believe that is the right standing point because outdoor growing conditions continue to get worse.”</p> <p>“It also emphasizes the need to understand how the competitors are working with retailers, what kind of deals, what type of incentives and what type of promotions and how much money they bringing to the table promotion wise.”</p>
Conceptual Framework: Best practices, tools and processes to consider for the new market attractiveness assessment	Presentation of known tools to assess internal company capabilities and external market factors	<p>(International Business Plan, Hirsch, 2016) – “I think this model is good for higher level strategic thinking. A starting point to determine where companies should move to based on their goals. I think every company should do this.”</p> <p>(MACS Questionnaire, Hollensen and Opresnik, 2021) “I think it’s exhausting to think about doing this for every state and province. It’s a lot of information to go through all this for every potential market.”</p> <p>(Relationship Approach, Anderson and Buvik, 2002) “I think the buying process is something we could spend more time on. Also understanding differences depending on the persona. When is the right time to approach and and what does it look like. What are the cycles? Talking to the head buyer about the full calendar year from their perspective.</p>
Initial Proposal: Process Outline	Presentation of potential process model which incorporates the assessment of internal company capabilities and external market factors	<p>(Systemic market evaluation process, Anderson and Buvik, 2002) “I think it makes sense. It’s pretty straightforward, seems comprehensive.”</p> <p>“The weight of each element, meaning the importance given to each element, is important. Who will define that?” “Agreed – you can go in the wrong direction very quickly if this element is wrong from the start.”</p>

**Appendix 7.Data Collection 3: Extracts From Field Notes of Validation
Presentation to the Case Company CEO and Board Chairman**

<p>Date: March 12, 2025 Duration: 1 hour, 7 minutes Mode: Teams Online Meeting Platform</p>		
SUBJECT	INFORMATION PRESENTED	RESPONSES
Current State Analysis: Review of responses from Data Collection One	Summaries of feedback and direct quotes were shared from the interviews with the case company, industry experts and retailers	<p>"I think it's quite logical. I think there is no surprises basically."</p> <p>"Generally speaking the, we didn't focus on developing the new strategy enough and we didn't have enough time to test and adjust the model."</p> <p>and understanding then customer that is that is everything for the operational model</p> <p>"Our way of thinking was very restricted when we were focused only on the technology. We didn't communicate enough with the growers and the retailers. Now since we have changed the business model, the whole business looks different. We are shifting our perspective to understanding the needs of the retailers and the challenges they face with their customers."</p>
Proposal Presentation	Presentation of the Simultaneous systematic data-driven regional market attractiveness process and relationship approach proposal	<p>"I think this would be really useful and it would help since we have really limited financial resources. It helps to focus and target the work right from the beginning. I think if we would have been showing this to the investors, to help them understand our approach, I would say that it would have helped with raising money as well."</p> <p>If I look at from the investor mind, basically because it shows that it's systematic and you actually work on actual data."</p> <p>"I agree with that. You are right that this sort of business is a marathon, not a sprint. We cannot be chasing individual deals like in the technology business. In that case, a single deal can provide big growth and big cash flow. Instead, this high-tech ag operations business is a long run. You need to have a quite a clear strategy."</p> <p>"This is very complicated business. There are a lot of risks involved. We were using a technology company approach and our financing was like technology company. That means that everyone is expecting short term returns. It's not going to happen in this sort of business"</p>

		<p>“This process also allows you to think about having a different strategy in different market areas. You can use the same process, tools, and analysis but adjust the criteria based on changes to the strategy.”</p> <p>“In that way, this process offers a good approach to looking at the whole country market entry, but then allows for flexibility based on how many resources you have available and how many regional markets you can assess.”</p> <p>”This will be useful at some point when we are ready to study the North American market again. Traction for our new business model is still ongoing. We are making progress on it. There's some investors giving the green light. Within this year or early next year we can actually use these learnings and this process”</p>
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WRITTEN STATEMENT**on the use of AI-based tools in this thesis****by Kasey Snyder, the student of BI Master's Degree Programme****Thesis title: Developing a Market Attractiveness Evaluation Process for a High Tech Agriculture Company**

According to the "Guidance for addressing the use of AI-based tools in studies at Metropolia Business School (for written submissions)" from August 2023, I make this statement on the use of AI-based tools in my submitted Master's thesis.

- 1) Which AI-based large language models or other AI-based tools I used
 - None
- 2) In which parts of the thesis which tools were used, and for which tasks (*please make a list*)
 - None
- 3) What portion of the text was helped with these tools, for each use
 - None
- 4) Which prompts were asked, exactly (*please indicate the page number in the text where used*)
 - None
- 5) Here, I describe what continues an ethical and reliable use of AI-based tools that I used (*use, for example, the recommended documents from "MBS Guidance" referred to above*)

AI was not used to support any part of this thesis.

- 6) Here, I describe how ethically and reliably I used the AI-based tools in my thesis submission
 - None

This written statement makes part of my thesis and is done to help in evaluation and assessment.

17 April 2025

(Data and place)



(Signature)