



AgEcon SEARCH
RESEARCH IN AGRICULTURAL & APPLIED ECONOMICS

The World's Largest Open Access Agricultural & Applied Economics Digital Library

This document is discoverable and free to researchers across the globe due to the work of AgEcon Search.

Help ensure our sustainability.

Give to AgEcon Search

AgEcon Search
<http://ageconsearch.umn.edu>
aesearch@umn.edu

*Papers downloaded from **AgEcon Search** may be used for non-commercial purposes and personal study only. No other use, including posting to another Internet site, is permitted without permission from the copyright owner (not AgEcon Search), or as allowed under the provisions of Fair Use, U.S. Copyright Act, Title 17 U.S.C.*

A COMPARATIVE ANALYSIS OF STRATEGIC MANAGEMENT PRACTICES IN
MICHIGAN AGRIBUSINESS FIRMS: 1992 VS. 2012

By

Miguel Vieira Lopes

A PLAN B PAPER

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

MASTER OF SCIENCE

Agricultural, Food and Resource economics

2012

Abstract

A COMPARATIVE ANALYSIS OF STRATEGIC MANAGEMENT PRACTICES IN MICHIGAN AGRIBUSINESS FIRMS: 1992 VS. 2012

By

Miguel Vieira Lopes

Over the past 20 years the agribusiness industry has been subject to a number of transformations and shocks that have altered its business environment and management practices. This thesis sets out to try to understand how the Michigan industry has changed in this period, and to understand if strategic management practices and performance are correlated. Data for this study was collected from Michigan agribusinesses at two time periods, 1992 and 2012. A comparative analysis indicates that Michigan agribusinesses have become larger, more diverse, and have increased their adoption of strategic planning activities. Furthermore, these practices were found to be positively correlated with performance.

Acknowledgments

This plan B paper is dedicated to my Parents, who have always been an extraordinary support and to Rita, who is my strength and my life.

I would like to thank my major professor, Dr. Brent Ross, for all his guidance, friendship and support and for letting me be a part of such an interesting project. I would also like to thank my other committee members, Dr. Christopher Peterson and Dr. Philip Howard, for their advice and help throughout this project. I feel extremely fortunate and honored to have had the opportunity to work with this committee.

I very much appreciate the help and interest shown by the Michigan Agribusiness Association. Their interest in applied research for the industry and their dynamism should be an example for agribusiness and agriculture associations everywhere.

Finally, I would like to thank all of the friends that I met in this first venture into the world of agriculture economics. I am happy to say that I gained many friends during the program at Michigan State University, who made me feel at home. I will always remember them.

TABLE OF CONTENTS

Introduction	5
Theoretical Background	7
<i>The Strategic Management Process in Agribusiness</i>	8
<i>Strategic Choices</i>	10
Methodology	12
<i>Industry Strategic Analysis</i>	12
<i>The 1992 Survey</i>	12
<i>The 2012 Survey</i>	13
Economic Environment in the two surveyed years	18
Industry Strategic Analysis	20
Survey Results	26
<i>Respondents' Satisfaction with Performance</i>	26
<i>Demographic Characteristics</i>	28
<i>Expectations for the future</i>	34
<i>Industry and firm level challenge</i>	39
<i>Strategic Management Practices</i>	40
<i>Marketing Practices</i>	53
Discussion	56
<i>Challenges faced by the industry</i>	56
<i>Planning activities and performance</i>	59
<i>Geographical and Product/Service strategic scope</i>	60
<i>Vertical Coordination</i>	61
<i>Marketing Capabilities</i>	63
<i>Demographic Characteristics of the Industry</i>	63
Conclusions	65
Appendices	68
Appendix A – The 1992 Survey.....	69
Appendix B – The 2012 Survey	81
Appendix C – Comparison of agriculture characteristics	104
Appendix D – Distributions of product and geographic scope	105
References	107

Introduction

US agribusinesses are subject to a great deal of external forces that are no longer dictated solely by regional or national factors. Agriculture and food commodity markets have become globalized. In today's competitive environment, often characterized by uncertainty, complex relationships and fierce competition, many firms are exploiting new opportunities and thriving while others face difficulties and struggle to adjust to the times.

This thesis has the agribusiness industry in the state of Michigan as its study subject and intends on describing and comparing the industry in two points in time from a strategic management standpoint. This industry is characterized by a great variety of firms, dealing in different products, ranging from inputs like seed, fertilizer and agro-chemicals, to farm machinery and petroleum products; and services, ranging from agro-chemical application to marketing services, like commodity warehousing and trading or edging mechanisms.

Observing an important transformation in the agricultural business and economic environment, Boehlje (1999) identified two main changes occurring in the way in which the sector carried out its economic and social functions. First, a focus on the supply chain instead of the firm or economical agent performing a particular action, which shifts the competition for market share from within a stage of the supply chain and between firms to a competition among entire supply chains; the second change was what he called "biological manufacturing", a change from the production processing of commodity products to the manufacturing of specific attribute products tailored to the end-user preferences. Both these changes in the industrial organization of the agriculture production favor the establishment of higher concentration levels in each of the different industry segments, which deeply influence the way the organizations behave and interact.

The same author described how “formerly distinct value chains are becoming increasingly interlinked and interdependent” (Boehlje, 2011), explaining how convergence between industries that were formerly in distinct markets is now turning them into either partners or competitors. Several value chains have shown this behavior recently, as can be exemplified by the increasing competition among companies from energy (e.g. biofuels) and food industries for crops and crop byproducts. Other examples of industry convergence include food and health, and food and industrial products (e.g. renewable packaging and biopolymers).

Similarly, certain firms are present in more than one of the input segment markets and develop reinforcing products supported by active strategies of cross-selling in an attempt to develop a competitive advantage (Freedonia Focus, 2012). These strategies greatly influence the general agribusiness industry.

This paper presents a strategic analysis of the US industry, based on recent industry reports from different sources. Besides these industry reports, as the methodology section will thoroughly explain, this paper also uses data from two surveys conducted with Michigan agribusinesses in 1992 and in 2012. These surveys were conducted in both years through the Michigan Agribusiness Association (MABA).

In light of these complexities and different influences, this study focuses on the strategic choices of the firms, in order to address the research questions:

- What practices do Michigan agribusinesses use in order to make strategic decisions?
- How have the strategic management practices of Michigan agribusiness firms changed over time, namely from 1992 to 2012?
- Is there a relationship between strategic management practices and firm performance?
- What are the expectations of challenges and performance in the future?

Theoretical Background

Strategic management became a strong influence in both the academic and the business worlds in the mid 20th century with works from authors like Selznick, Chandler and Ansoff (Mintzberg et al., 1998), who set up the basic principles and tools which are still the foundations of strategy making today. But perhaps there is no other author in strategic management's history who was as influential as Michael Porter. In his 1980 book *Competitive Strategy*, he established the idea that there were only a small number of strategies that would fit an organization's internal and external characteristics, at a given time, and lead it to a higher performance. One of his main contributions, if not the most important, was the five forces framework he proposed to analyze the external environment in which a firm operates and became generally known as Porter's Five Forces.

Far from aiming at presenting a complete description of the historical developments of strategic management as a discipline, which can be found in works such as Mintzberg's *Strategy Safari*, the goal of this section of the thesis is to establish the context in which strategic management emerged and what are the relevant tools and concepts for the study of the research questions.

As mentioned before, this paper focuses on strategy. Therefore, it is imperative to dive into the world of strategy, strategic planning and strategic analysis and ask the question Porter asked in the title of his 1996 paper: *What is strategy?* In this article, the author shows how important for a firm's performance the determination of a strategy can be and how those strategic choices lead to trade-offs which occur because of the need to maintain a strong coherence and consistency throughout the entire organization's set of actions. Only with this coherent strategy can a firm establish a system of activities that creates a true competitive advantage. He proceeds to name six necessary conditions to create sustainable competitive

advantages: (1) Unique competitive position for the company; (2) Activities tailored to strategy; (3) Clear trade-off and choices vis-à-vis competitors; (4) Competitive advantage arises from fit across activities; (5) Sustainability comes from the activity system, not the parts; (6) Operational efficiency a given. These sources of sustainable competitive advantage are the characteristics that set a certain firm apart from the competition by allowing it to position itself well and earn high rates of return (Porter, 1985).

The Strategic Management Process in Agribusiness

The strategic analysis is a fundamental point of strategic management and uses tools and concepts developed by the very pioneers of the discipline, like the SWOT analysis, based on the concepts introduced by Andrews (Hill and Westbrook, 1997), and the Five force analysis and the Value chain analysis, both introduced by Porter (1979 and 1985). Further ahead in this paper, there will be a complete strategic analysis of the US industry, using some of these tools and concepts.

This study focuses mainly on the planning phase of strategic management, the process where strategy is actually created, and the importance of a group of planning activities in the success of organizations. But if strategy is a system of activities that work together in a reinforcing way to achieve superior performance, like Porter defends, how do you create it? Eden and Ackerman, in their 1998 book *Making Strategy*, start by defining the concept of Emergent Strategizing, which is the term they use for the general patterns that emerge from organizations and, whether they realize it or not, represents their strategic direction. This concept is important because it states that even firms that do not perform any formal activities of strategic planning have some general strategically driven direction. These authors present a framework for strategy making as a JOURNEY: **JO**int **U**nderstanding (of all the stakeholders

about the strategic direction), **R**eflecting (about the firm's distinctive competencies and how well they support the strategy and aspirations), and **N**egotiating strateg**Y** (in order to reach an agreement about the aspirations so that they are feasible but still inspirational, monitor the implementation and agree on a draft of strategic intent and direction). Whether or not firms use this planning model, this view of involving all stakeholders and considering the company's and the surrounding characteristics before establishing the strategy is an important consideration for the process.

Worried with an excessively mechanic view of the frameworks and systems to conduct a strategic analysis and create a strategic plan, Mintzberg (2001) defended that strategy making should be seen as a craft, a more organic process where the manager truly knows the reality of the firm and the industry and takes the past into consideration in order to create the most accurate predictions for the future opportunities. Although this author does not deny the validity of the formal processes developed in strategic management, his article tried to draw attention to the need to include a more human component to strategy. This dimension of strategy is hard to observe in a survey and is better described in work like the one the same author conducted in his 2009 book, *Managing*, where he accompanied the day of several top managers in different companies in order to capture this human side of managing. Nevertheless it is a powerful consideration that shall accompany this study in its analysis.

Regarding the important question of the relationship between strategy and performance, several studies found a positive relationship between performance and the firm's planning activities (Thune & House, 1970; Rhyne, 1987), however meta-analysis studies, like the one of Brian Boyd (1991) showed that "While some studies have found significant benefits from planning, others have found no relationship, or even small negative effects".

To determine whether a relationship between strategic planning and performance exists in the agribusiness context is of extreme importance, as the planning activities, and the strategy implementation that follows, usually signify incurring in high non-operation costs. Studying the California processing tomato industry, Baker and Leidecker (2001) found proof of this positive relationship. Their research showed that the use of strategic planning tools had a strong relationship with the firm's ROA. Three specific tools, the use of a mission statement, long-term goals and ongoing evaluation, were also found to have a strong relationship with profitability.

Using the data gathered from the two surveys, this study will attempt to bring to light whether or not this relationship exists in the Michigan agribusiness industry and to clearly state the benefits that firms can expect from commencing or expanding the use of these tools.

Strategic Choices

Another important set of factors that is part of the firm's strategic choices is that of the strategic scope and vertical coordination.

As was mentioned before, Boehlje (1999) described a changing environment in agribusinesses in the US, where firms were aligning vertically in the supply chain and competition was no longer between isolated firms in a given stage of the supply chain but between the chains themselves. These changes are extraordinarily important as they influence the risks, relationships and expected returns of each of the firms. Peterson et al. (2001) formalized the idea of a vertical coordination continuum ranging from the spot/cash market to vertical integration, where the reasons and theoretical support for the changes described by Boehlje can be found, based on transaction costs theory (Williamson, 1979). The article

focuses the definition of the type of vertical coordination on control intensity over the transaction, and not on ownership. This important concept is in agreement with what reality shows us on many occasions, where there is in fact vertical coordination although the several firms are not owned by one major entity.

This topic is contemplated in the 2012 survey as an attempt to explain which of these changes in vertical coordination are present in the Michigan agribusiness industry and whether they affect performance on the firm level.

The issues of companies' product and geographic scope is also encompassed in the 1992 and 2012 surveys, to describe the choices being made in this regard and to attempt to determine whether or not they are correlated with performance. The product scope question is particularly relevant for the input suppliers because of the notion that one of the main sources of competitive advantage for those companies in the last decades has been the development of proprietary products (Freedonia Focus, 2012). The survey results concerning both product and geographical scope will help determine if there is a strategy, or a set of strategies, regarding these issues that is creating significant differences in performance. Supplying the industry participants with this information can serve them in their strategic management process.

Methodology

The data and information collection process for this study was conducted in three separate phases and exploiting different tools, regarding the industry analysis, the 1992 survey and the 2012 survey.

Industry Strategic Analysis

The external analysis of the US agribusiness sector was conducted using secondary data sources. These were mainly industry reports provided by private companies that evaluated and analyzed a very diverse array of business related subjects, both on the firm and the industry levels. The analysis offered is usually of a more restricted segment or industry than the analysis presented here, as there is no report about the agribusiness industry but several reports that analyze, for example, the seed or the farm machinery segment.

This section will use some of the main analytical concepts and frameworks to identify the most important market drivers and change forces that impact the agribusiness industry in the US.

The 1992 Survey

In 1992, a survey was conducted of the strategic planning practices of firms in the Michigan agribusiness industry. This survey, shown in *Appendix A*, was sent by mail to 362 firms in the industry and generated 212 responses, representing a 58.6% response rate. The data from this survey provides a baseline of firm and industry characteristics as well as an inventory of management practices and expectations by which to compare the current state of the industry. In particular, this survey allows for us a description of how the industry has changed in

twenty years in terms of strategic planning and in general characteristics like performance, number of employees, assets, sales, or geographical and product scope.

The analysis used for this data was a simple statistical description of the variables, resorting to t-tests and chi-square tests to determine statistical significance and the existence of correlation with performance related variables.

Besides individually testing, factor and cluster analyses were also performed on the variables that assessed firms' use of strategic planning tools, in order to determine whether or not there were groups of similar activities and clusters of firms that typically used some or all of these activities, at different levels. This methodology is consistent with the preliminary analysis of the data, and was sought to be the most effective procedure for the analysis of such a large number of variables. The preliminary analysis of the data was performed by Peterson (1995), who also performed the survey. The factor analysis was an important step as it sorted the variables into categories and made the interpretation of the cluster analysis clearer, particularly regarding the moderate planning clusters. Likewise the cluster analysis was found to be appropriate because it allows for a more meaningful and categorical analysis of the firms' behaviors.

The 2012 Survey

To assess the industry's characteristics in present time a new survey was conducted during the summer of 2012.

Following extensive literature review about the current strategic management practices and the existing studies that approached similar and related hypotheses, as well as a review of the baseline survey that allowed the identification of key points of interest, a new survey was

constructed. It was purposively designed to allow the comparison with findings of the 1992 survey. A draft version of the survey was presented to the industry and the feedback from that presentation was then used to incorporate additional areas of interest and to revise important aspects of the questionnaire.

After obtaining approval from the MSU Human Research Protection Program Institutional Review Board, a pre-test was conducted with industry experts, which lead to a new revision of the survey that considered the feedback supplied. The final version was structured to consist of five parts: 1) Industry characteristics; 2) Firm characteristics; 3) Organizational performance; 4) Firm strategy and planning; 5) Company demographic information. A copy of this survey can be seen in *Appendix B*.

This survey was conducted online via the SurveyMonkey® web platform (www.surveymonkey.com). An email with a link to this web survey was sent to the target population in mid-July 2012. The target population represented managers and owners of agribusiness firms. In addition, a consent letter and a letter of support from the MABA leadership accompanied the survey request; a reminder email was also sent to the target population after two weeks. In total the survey was open for four weeks. Responses to the survey were received from 60 unique agribusiness firms, representing a 75% response rate from the target population.

The MABA's membership represents approximately 95% of the agribusiness industry at the state level, according to its upper-level management. The criteria for acceptance in the association are based on being actively part of the industry, or having a mutual interest in the industry even though not being commercially involved in agribusiness. Also, annual dues are charged at a progressive rate according to firms' annual revenue, in a way such that smaller firms do not find difficulties in access.

Following a methodology similar to the one used for the 1992 data, when it comes to statistical analysis, the treatment given to the data used descriptive statistics supported by t-tests and chi-square tests for independence, when appropriate. Also, a cluster analysis was used to determine distinct strategic groups of firms with similar behavior in terms of planning activities used.

The statistical analysis performed on both data sets was divided in two parts. The study of the changes in demographics and strategic choices over the past two decades used a descriptive analysis. The second part of the analysis examines the relationships between strategic management choices and performance. Correlations between performance and selected firm variables are calculated for each study year. This allows the analysis to focus on the comparison of agribusiness characteristics and practices in the two time periods rather than on best management practices overall. Hypothesis testing¹ was then conducted to test for independence using a chi-square test. In order to measure performance in this series of tests two variables were used: pretax profit and satisfaction with performance. The five relationships tested were the following:

R1: The level of strategic planning used by the firm is positively correlated with performance.

Firms located in the higher planning clusters were expected to show higher levels of performance as they are expected be able to create competitive advantage over other players in the market by incorporating strategic management practices in their business. This would be consistent with the strategy literature as strategic planning is the process through which firms can organize their system of activities in a reinforcing way, based on the core competencies of the firm, thus optimizing their performance by creating sustainable competitive advantage (Porter, 1985). Also, these expectations were supported by the

¹ Given the small sample size and missing data in the responses, regression analysis is not appropriate.

findings of previous studies such as Baker and Leidecker (2001) or Andersen (2000), where positive correlations between strategic planning and performance were found.

R2: More diversified product/service and geographic scope is correlated with performance.

Strategic scope may be positively or negatively correlated with performance. A positive sign could reflect that agribusiness forms realize gains from enhancing economies of scope, created by higher product diversity and/or a wider geographical customer base. On the other hand, a negative relationship may be associated with poor integration of a broad scope of ventures; or in other words, a poor strategic fit of the firm's activities (Porter, 1996).

R3: Higher levels of vertical coordination (VC) are positively correlated with performance.

Based on the literature that shows a trend toward supply chain alignments (Boehlje, 1999, 2011) an agribusiness firm's positioning along the VC continuum is expected to be positively correlated with performance. This expectation is based on the assumption that a higher level of vertical coordination would result in economies of general and administrative, other selling, advertizing and R&D expenditures, like the ones found by D'Aveni and Ravenscraft (1994). These authors also found that there where bureaucracy cost that arose from VC but were outweighed by its benefits.

R4: Higher capabilities in marketing operations are positively correlated with performance.

The 2012 survey collected data about these operations that allowed testing whether or not these capabilities are determinant to the firms' performance, as is supported by studies like the one by Morgan et al. (2009), which find marketing orientation and marketing capabilities to contribute to a superior performance. According to these authors, firms with superior MO achieve higher performance because they have a greater understanding of the customers' wants and needs, of the competitors' capabilities and strategies, the channel requirements and developments, and the broader market environment than their rivals. Marketing capabilities

of the firm are viewed as important market-relating mechanisms that allow obtaining this understanding.

R5: Demographic characteristics of the firm are correlated with performance. The idea that firms could be subject to certain requirements in terms of minimum efficiency scale could justify a positive relationship between demographic variables, like sales or total assets, and performance. Nevertheless there could be the need for a lower capital-labor ratio. This could justify a negative correlation between the number of employees and performance, or even a positive relationship between debt-to-asset ratio and performance. Testing for the existence of these relationships between demographic characteristics of the firm and performance can help shed light into these questions.

Economic environment in the two surveyed years

As could be expected the agribusiness industry and the US economy have witnessed important changes in the past 20 years. The US Gross Domestic Product (GDP) changed from 8.28 billion dollars in 1992 to 53.19 billion in 2011. Interestingly, the percentage of the GDP represented by the added value of agriculture did not change very much. According to the World Bank (2012), it was 2% in 1992, while for the past five years it has been at 1%.

Interest rate have strongly decreased in the same period, as LIBOR rates at 12 month maturity have changed from 4.248% in 1992 to 0.862% in the present day. The stock market has also seen some important changes. An example is the Standard & Poor's 500 index, which grew strongly from 435.71 in December 31st, 1992 to 1379.85 in November 9th, 2012. Interestingly, the exchange rates between the dollar and the British pound do not have a very strong difference at these two points in time. In 1992, the average value of one dollar was £0.57, while in the first 11 months of the current year this value was of £0.632.

The unemployment situation has also suffered some variation. According to the Bureau of Labor Statistics (2012), the average unemployment in 1992 was 7.5%, while in 2011 this value was 8.9%. The same source shows how in the State of Michigan, comparing the last data available for 2012, the month of September, to September 1992, the unemployment rate has also increased from 8.9% to 9.3%.

Turning now to the agribusiness industry itself, significant changes have also been in play between these two years. Prices are much higher today than they were 20 years ago, as shows the Commodity Price Index. This index considers 2005 as the baseline year and the price level of 100, and registers 1992 at a 54.83 level of commodity prices, while the value for 2012 is 187.19. In accordance to these values the prices of corn, soybeans and milk have changed from \$2.3/bu, \$5.61/bu and \$9.71/cwt respectively in 1992 to \$6.37/bu, \$13.9/bu

and \$16.7/cwt in 2012. Some more of changes in the agriculture industry, in terms of expenses and areas, can be found in *Appendix C*, where several variables are presented both for the US and Michigan, when possible. These changes in the characteristics of agriculture production greatly influenced the whole agribusiness sector.

There were also other important changes in terms of agriculture practices and technology that influenced the agribusiness industry. According to the USDA's Economic Research Service (ERS), in 1992 around 3% of pork operations were organized under production contracts. Nowadays, the situation is very different. In 2004 that percentage was over two thirds (ERS, 2007). This new industry structure was likely to introduce important changes upstream and downstream of the farm in the pork supply chain.

Another example of important changes in practices and technology that is likely to have directly influenced agribusinesses in these past years was the introduction of GMO seed for the main crops. In 1992 the technology was inexistent at a commercial scale. However, according to the ERS, in 2000 the percentage of total area planted for corn that used GMO seeds was 25%, while Cotton and soybeans were at 61% and 54% respectively. Today, these percentages are 88%, 94% and 93%, in the same order (ERS, 2012). These important changes had strong repercussions in the entire supply chain, both upstream and downstream of the farm and are consistent with the observations of Boehlje (1999) in what he called the "biological manufacturing" changes in the agribusiness industry.

Industry strategic analysis

In this vast industry the concentration levels vary from segment to segment. In most segments, like seed, fertilizer, commodity trade and pesticides, a small number of firms have control over an important part of the market. In these cases the top three companies in each segment represent a market share that ranges from about three quarters of the market in the seed segment (Freedonia Focus, 2012) to close to a third in the pesticide segment (IBISWorld, 2012). Despite this high concentration in most segments, the crop service segment is characterized by high fragmentation and the presence of many small firms (IBISWorld, 2011).

The secondary data available in sources like the Data Monitor, IBISWorld and Freedonia Focus, show that the industry has based its significant growth in revenue on very strong research and development of core competencies, that originated very specialized products, many times proprietary, and created monopoly rents and other advantages in several situations.

The industry shows a moderate level of profitability, with some variability among segments. While most segments show profit margins between 6.6% and 14%, there are some areas with higher returns, like farm machinery (IBISWorld, 2012) and seed (Freedonia Focus, 2012). In terms of productivity, the industry has shown high performance, with consistent growth in the past five years averaging 2% to 3.5% in most segments (IBISWorld, 2011, 2012 and DataMonitor, 2012). The main driver of this productivity growth has been the specialization in value added products for the farming and food processing industries (Freedonia Focus, 2012). Customer satisfaction is evaluated as very high, sustained by a growing ability to tailor products to the customer, creating a high perceived value (IBISWorld, 2011 and Freedonia Focus, 2012). Finally competitiveness is also strong in the industry. The US industry is

strongly resisting pressure from external competition and has been able to devise strategies that protect it from importation of substitutes (IBISWorld, 2012).

Figure 1 – US Agribusiness industry performance assessment

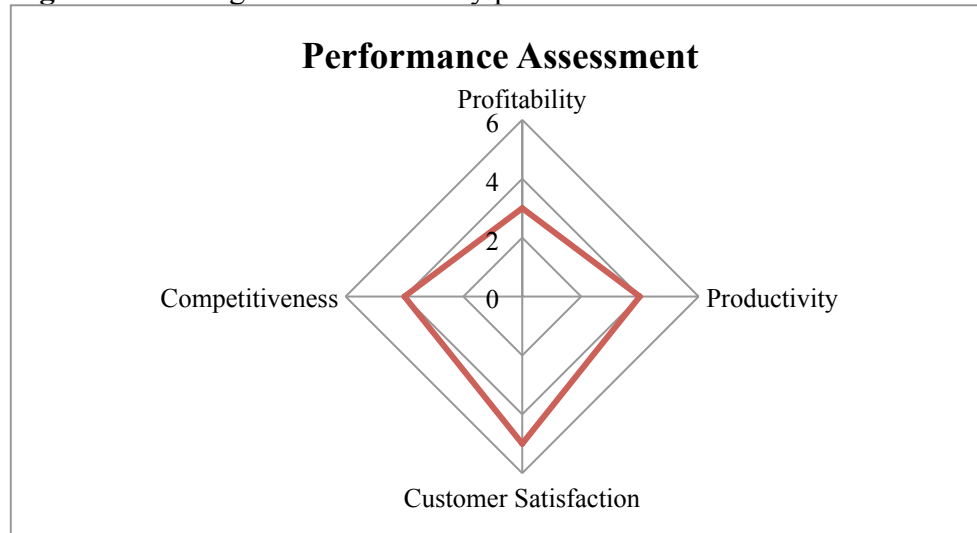
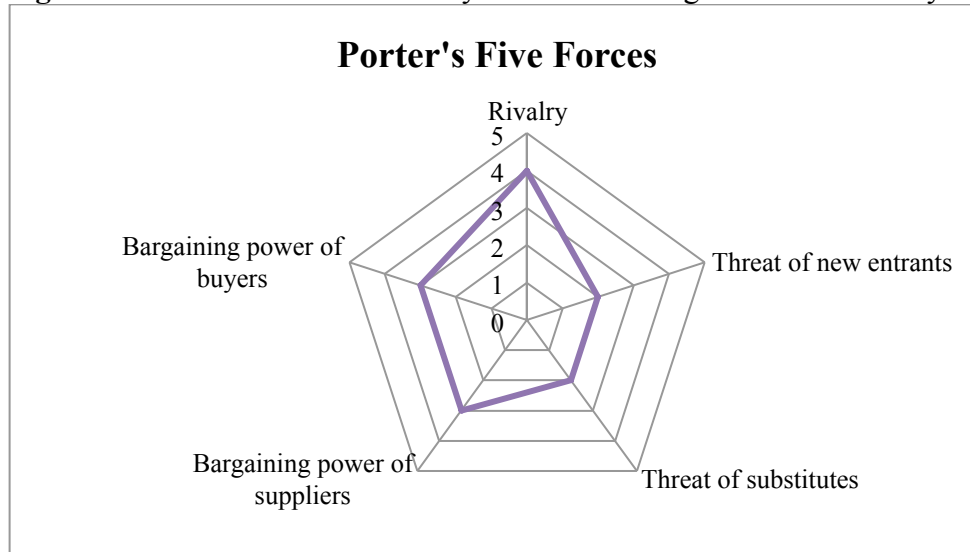


Figure 1 shows the summary of the industry's performance analysis. The figure shows an industry that performs well and has found efficient ways to compensate for the low profit margins shown by some of its main segments. When evaluating the graph in this figure one must keep in mind the variety and range of the industry to understand that the lower profitability firms may have means to effectively service their stakeholders, by growing through diversification and expansion of the business.

Michael Porter's Five Forces Framework divides the external factors that influence the firms in a certain industry into five categories: Rivalry among competing firms, Threat of new entrants, Threat of substitute products, Bargaining power of suppliers and Bargaining power of buyers. According to the author, the collective strength of these five forces determines the ability a firm has to earn, on average, rates of return on investment in excess of the cost of capital (Porter, 1985). Figure 2 shows the relative strengths of these forces.

Figure 2 – Porter's Five Force analysis for the US Agribusiness Industry



The industry is characterized by strong rivalry, with active use of price as a competitive tool in some segments (IBISWorld, 2012), while in others firms decided to diversify among segments and create brand specific complements (Freedonia Focus, 2012). Threats of new entrants and substitutes are considered to be low because of heavy cost structures, economies of scale (IBISWorld, 2011) and the difficulty to substitute most of the products in this industry due to their nature. The bargaining power of suppliers and buyers is seen as moderate. The customers' low change costs are balanced by the effort put into customer satisfaction seen before. Similarly, the fact that most of the raw materials are supplied by a restrict number of firms (IBISWorld, 2012) is compensated by the fact that most of these products are commodities and most suppliers compete on price.

Besides analyzing the main external influences at a certain point in time, the change forces or market drivers that have the potential to influence the industry must also be considered. In the case of the Agribusiness industry there are several such factors that influence the entire industry:

- *Increase in demand for Agriculture products.* The increases in population and available income in developing countries have created a higher demand for food and other

agriculture products and are expected to continue this trend. Consequently, this generates a greater demand in agriculture input products and services, in volume in some cases but mainly in value.

- *Increase in food prices.* The FAO food price index, that considers the period of 2002-2004 as the weighting factor, registered a value of 213 in July of 2012, meaning that prices have more than doubled since the reference period (FAO, 2012). This index is expected to continue increasing until 2017 (IBISWorld, 2012). Together with the increase in demand, this increase in prices will determine an Aggregate Farm Income growth that will support a sustainable growth in the demand for the products and services the industry provides.
- *The biofuel market.* Specifically the bioethanol market in the US will also be a source of increased demand. The demand for biofuel is expected to increase about 8.5% per year until 2014 and reach a 49 million metric ton consumption. This expectation is supported by the EISA legislation that mandates that, by 2014, a minimum of 46.9 million metric tons is incorporated in the nation's automobile fuel supply. Second generation biofuels are also considered in the same legislation and could open important markets for the industry as there are specific mandates in terms of cellulosic biofuels, which would greatly impact demand for several segments of agribusiness.
- *Consumer concerns towards Health and the Environment.* The US consumers are increasingly demanding products that are simultaneously healthier and more environmentally responsible. Organic and Integrated pest management techniques are becoming more available and more demanded, and these production systems involve non GMO seeds, a very controlled fertilizer use and the replacement of most pesticides for natural pest management. The compound annual growth rate of the Organic food market between 2006 and 2010 was of 11.6%, with the fruit and vegetable segment

representing 38% of the market's overall value (DataMonitor360, 2011). Although forecasted to grow slower in the following years, this trend can have a very dramatic impact on the inputs demanded and the techniques employed.

- *Regulatory environment.* The seed segment has found its main revenue gains in the last years in R&D breakthroughs in the GMO field. Supporting this trend, the US regulatory environment is favorable to GMOs but with the commodity trade becoming more and more global the attitudes towards GMOs in Europe, traditionally resistant to this technology, and in the developing countries will be an important factor to consider both in the seed and the commodity trading businesses. Also, several governmental agencies, like the FDA, the EPA and the USDA, are responsible for continuously monitoring and controlling the substances used in agriculture, which could introduce important changes in the agribusiness context.
- *Price sensitivity of final consumers.* The percentage of the USDA recommended diet that an average American consumes has decreased 0.81% from 2006 to 2011 and is again expected to drop on average by 1.44% until 2016 (IBISWorld, 2011). These numbers reflect the very strong influence that price has in consumer preferences for food. Not necessarily meaning that the healthy eating trend is over or unimportant, these numbers might show that the two parallel trends can coexist in the coming years.
- *Supply chain governance.* The trend of supply chain alignment seen in the industry leads to difficulties in establishing sustainable risk and reward sharing arrangements. This commonly leads to situations where a chain leader emerges, a firm that can shape the rule by which the supply chain acts (Boehlje, 2011).
- *Talent availability.* The shortage of talent has been a rising issue for the industry. Causes like social and economic factors that make relocating more difficult, an aging population in developed countries and a disconnect between the needs of the

agribusiness labor market and the output of universities are pointed out as the main causes for this problem (Duerksen, 2012).

- *Climate change.* Global climate change is expected to impact agricultural productivity, mainly by altering CO_2 concentrations and rainfall patterns. Although different atmospheric, plant science and economic models predict different outcomes, productivity is likely to suffer significant shifts and impacts (Adams et al, 1990). Kurukulasuriya and Rosenthal (2003) predict changes in land use and water regimes, due to climate change, that should have different impacts according to the areas of the globe. Changes in distribution of available land for production, particularly in colder climates, and variability in productivity could greatly influence the future of the agribusiness industry.

Based on the Five Force Framework and these main market drivers, and knowing the industry's strong performance that was analyzed previously, each firm in the industry can now analyze the opportunities and threats that it faces, in order to conduct its own SWOT analysis. In a general approach to the entire industry, this report finds that the main opportunities come from the biofuel and the healthy food markets, and are supported by the increase in aggregate farm income that is expected for the US agriculture operations in the traditional agricultural sectors. On the other hand, the main threats to the industry's status quo come from the environmental and health concerns, global trade and changes in demand and supply characteristics due to climate change.

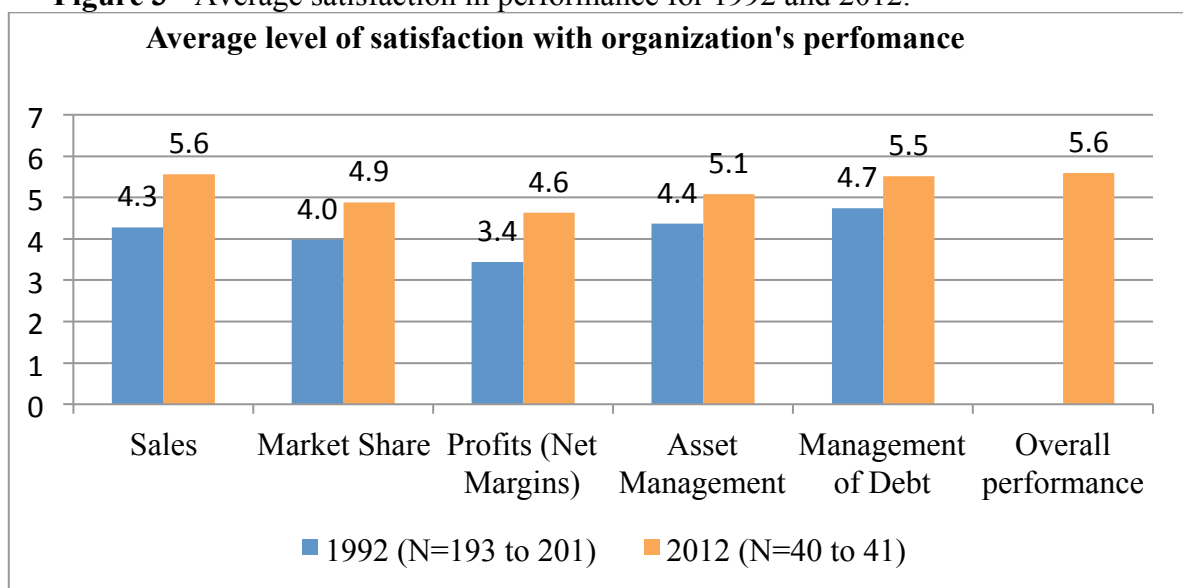
Survey results

As was explained previously, both surveys attempted to assess similar industry and firm characteristics regarding strategic choices and planning tools used. Some new questions were added to the 2012 survey to assess additional firm characteristics. The results that follow will many times be formatted as a comparison of the two surveys and the figures will show the two years side by side.

Respondents' Satisfaction with Performance

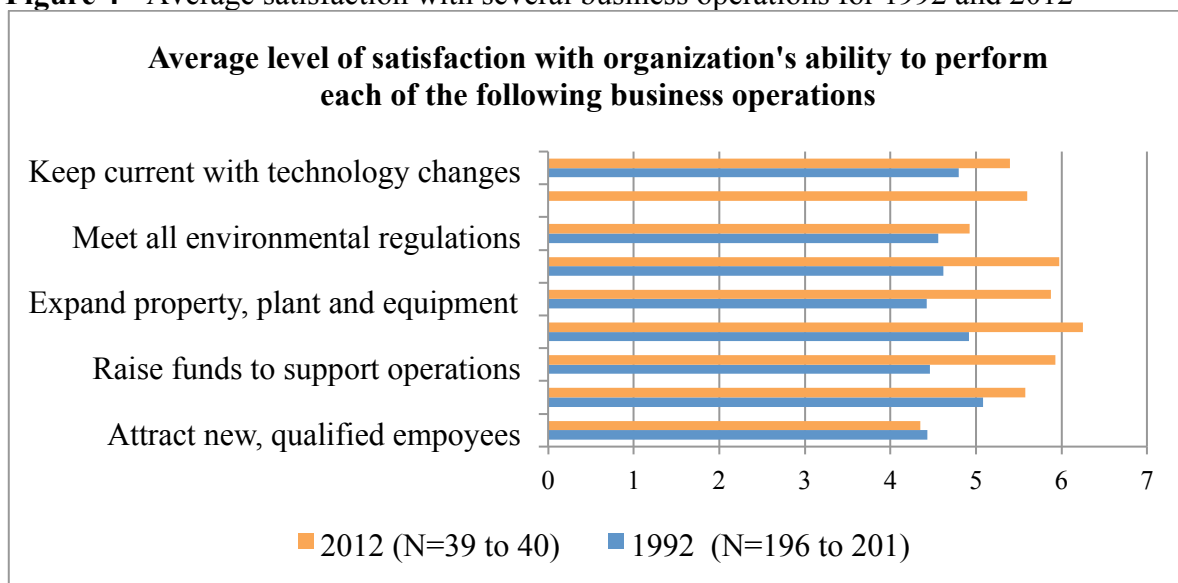
Regarding the respondents' level of satisfaction, the surveys recorded the results showed in figure 3. These results, assessed in a scale of 1 (very dissatisfied) to 7 (very satisfied), picture an industry with high levels of satisfaction, and a clear increase in satisfaction in all categories. Particular attention should be paid to the level of satisfaction with profit margins, which was around 50% in 1992 and now scored a 4.6 in our scale, corresponding to a 65.7% level. This is consistent with the levels of profitability reported further ahead in this section.

Figure 3 - Average satisfaction in performance for 1992 and 2012.



Still regarding the firms' satisfaction levels, the survey also included a question about the satisfaction with the specific business operations illustrated in figure 4. Again, a clear increase in satisfaction when compared to the 1992 survey is evident, with seven of the nine operations performing at an above 5 level in our scale, on average. Together the two figures paint the picture of a successful industry that has improved its performance in the past 20 years.

Figure 4 - Average satisfaction with several business operations for 1992 and 2012



A t-test of means was used to test if the changes seen in the previous figures were of significant nature. Two variables were tested: one representing the average satisfaction with the five aspects of performance shown in figure 3, and one representing the average of all business operations in figure 4. The results of such tests are presented in figure 5 and showed how the differences in satisfaction are significant.

Figure 5 – Two sample t-test with unequal variances for differences in mean.

Variable	mean		p-value
	1992	2012	
Satisfaction with performance***	4.13	5.17	<0.01
Satisfaction with business operations***	4.64	5.56	<0.01

NOTE: ***= significantly different at 1% significance level.

Demographic Characteristics

Now turning to the industry's demographic variables, the following set of figures shows and compares some of the respondent firms' characteristics in the two surveyed years. Figures 6 to 9 show some important changes in the industry's financial and performance characteristics.

Figure 6 - Average sales in previous three years for 1992 and 2012.

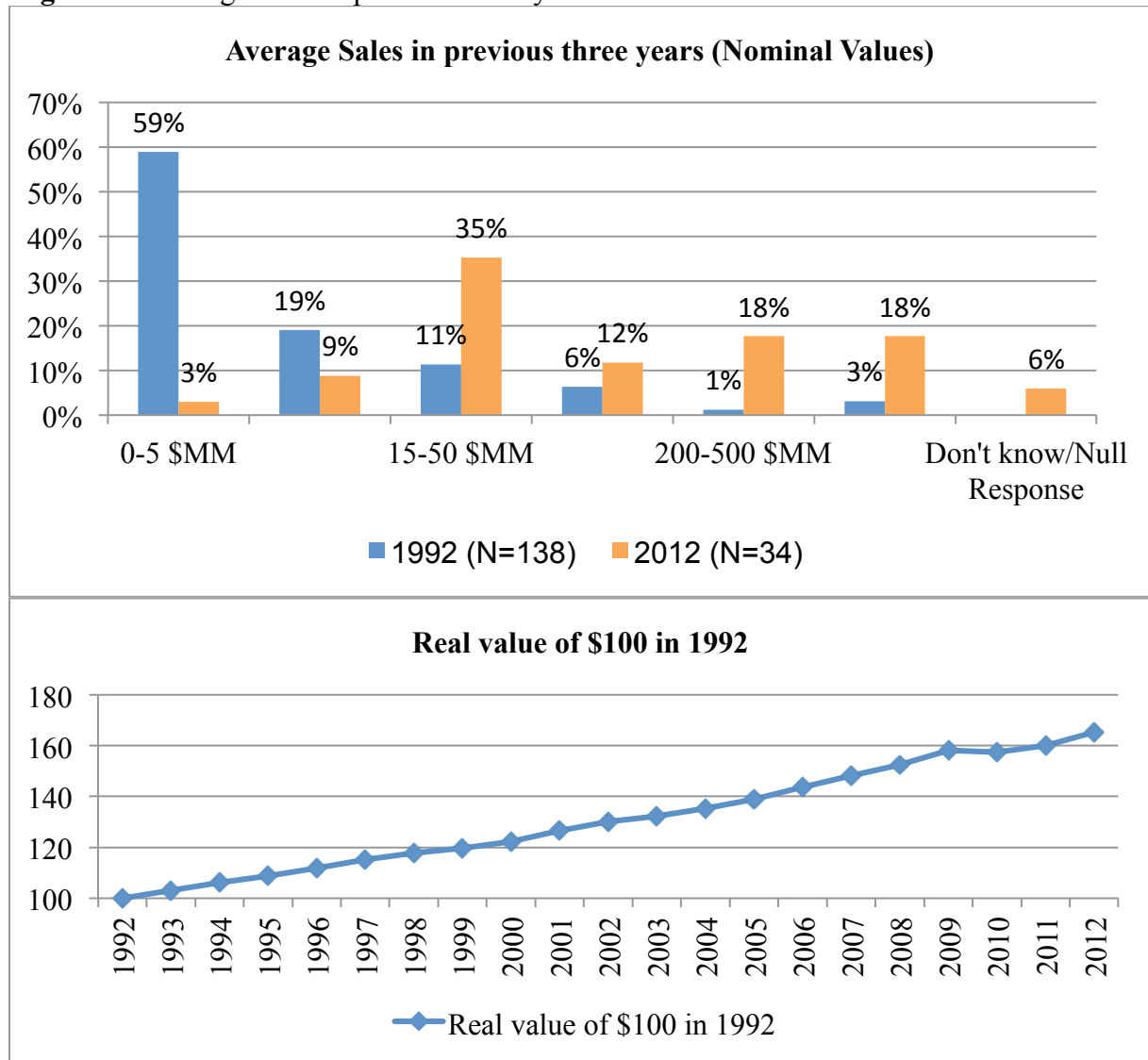
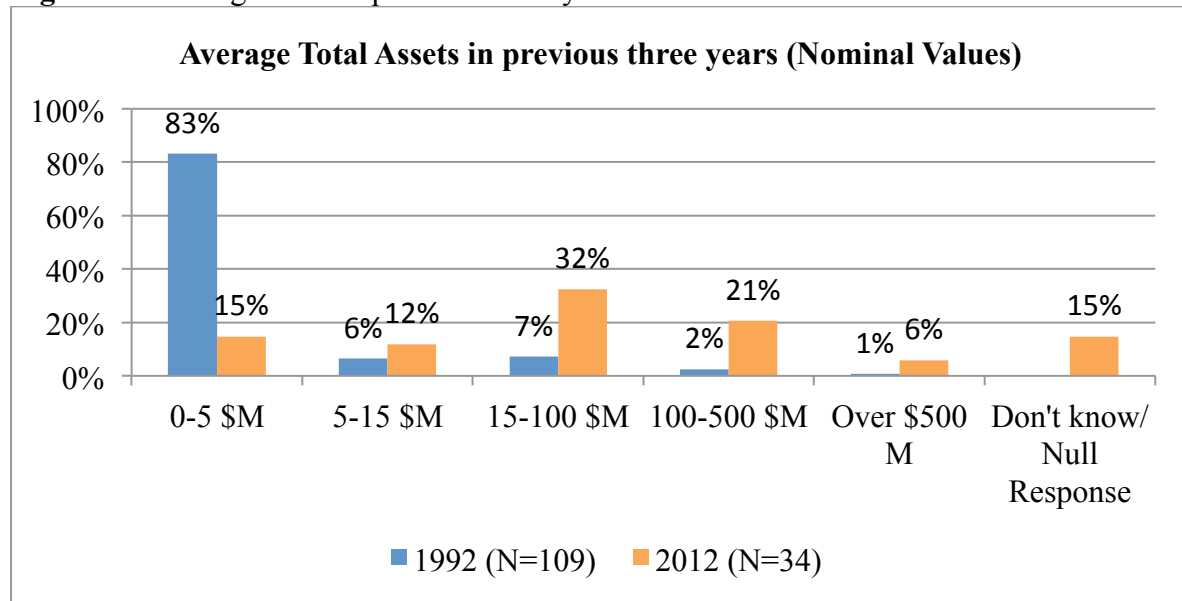


Figure 7 - Average sales in previous three years for 1992 and 2012.



In 1992 sales and total assets were, for the majority of firms, in the zero to five million dollars class, in nominal terms. The new survey shows completely different results in these fields, with a much more even and flat distribution of sales and assets. In fact the most frequent class of sales was the 15 to 50 million dollars category, while the most represented class for total assets was the 15 to 100 million dollars one, again in nominal terms. This increase in sales is consistent with the increase in satisfaction with sales pictured in figure 3.

According to the US Department of Labor's Bureau of Labor Statistics, the consumer price index inflation adjusted value for five million dollars in 1992 to current values would be around \$8.210 million. Similarly, one billion dollars today would correspond to around \$609 million in 1992. This helps to put into perspective, in real terms, the actual increase in sales and assets the two surveys demonstrate for the firms in the industry.

Figure 8 - Average debt-to-asset ratio in previous three years for 1992 and 2012.

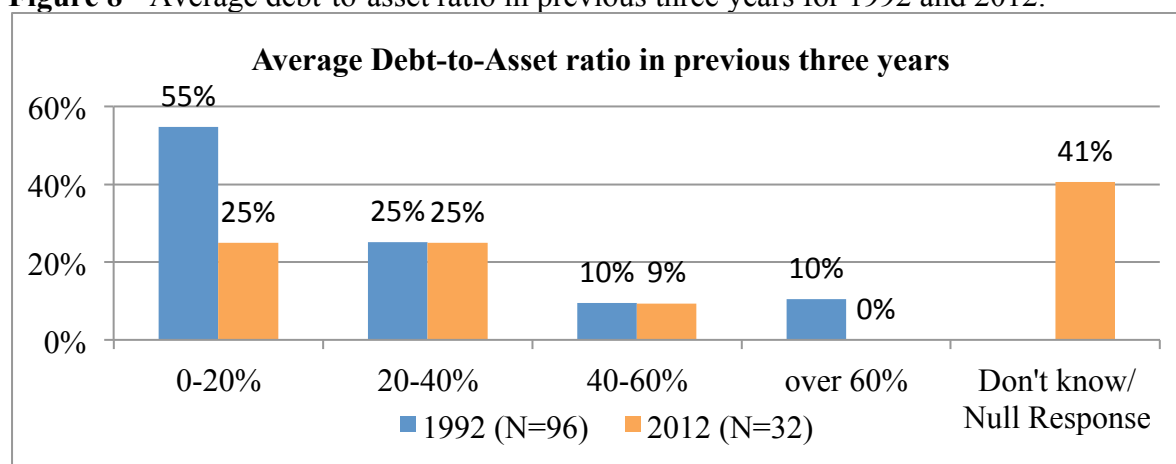
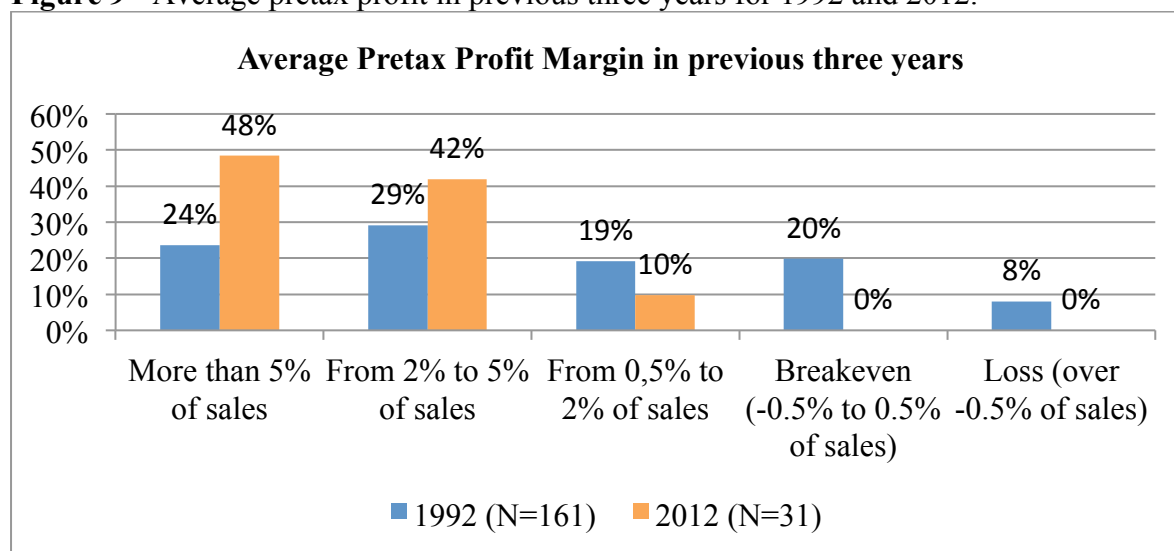


Figure 9 - Average pretax profit in previous three years for 1992 and 2012.

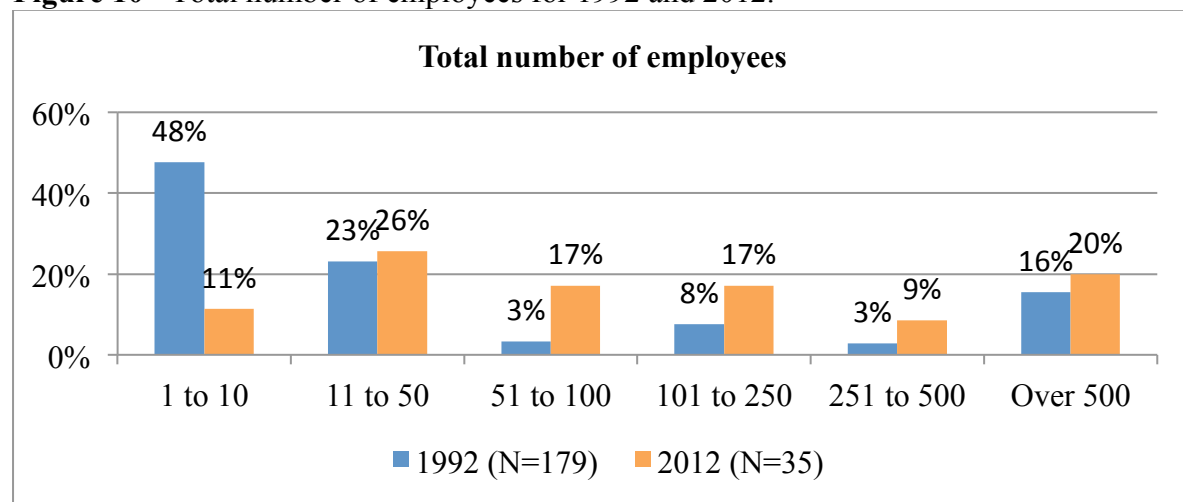


The Debt-to-Asset ratio presented a high amount of null responses, therefore not allowing for a very conclusive analysis. However, it is interesting to notice that the 20%-40% and 40%-60% classes recorded very similar levels to 1992 and that there was a very abrupt drop in firms within the 0%-20% class, suggesting that firms could be more leveraged relatively to their assets, even though, as we have seen before, those assets have significantly increased in size.

Regarding profit margins, figure 9 shows a clear shift to the left in the graph, representing an increase in profitability over the last 20 years that is consistent with the increase in satisfaction with performance seen before. When comparing the two surveys, it is clear that the two classes above 2% pretax profit margins have substantially increased and that in 2012 the most frequent class is no longer “2% to 5%” but “More than 5%”.

Figure 10 represents the distribution of firms by number of employees, and, again, the comparison between the two surveys. In this case the industry has shifted from a situation where the vast majority, 71%, of firms employed 50 or less in 1992 to a current situation that is much more evenly distributed and where the two more represented categories are “11 to 50” and “Over 500”.

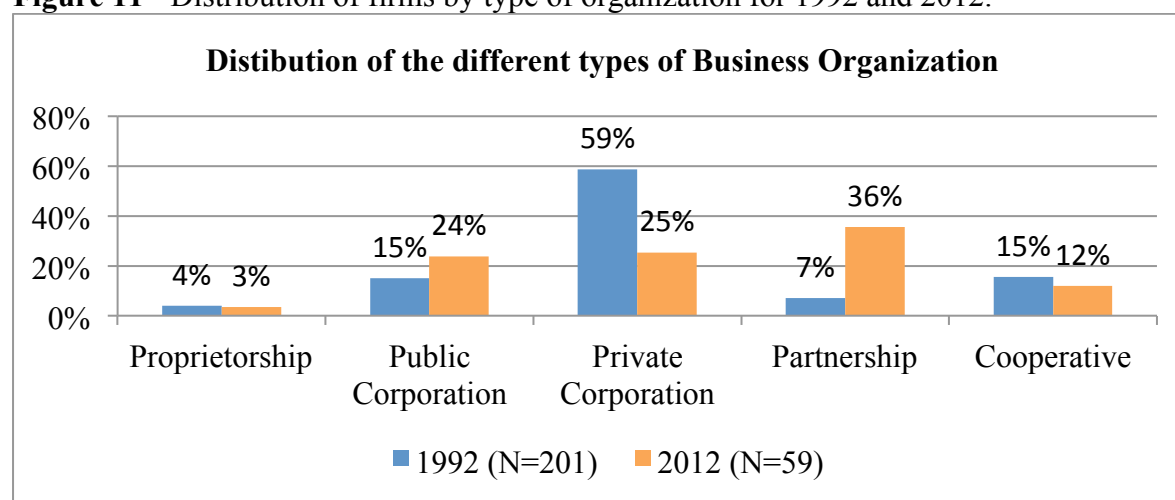
Figure 10 - Total number of employees for 1992 and 2012.



Regarding the type of business organization, figure 11 shows, again, the tendency for a more evenly distributed industry when compared with the 1992 situation. In the original survey 59% of respondents stated that their organization was a Private Corporation, while all other types of organizations were represented in the industry at levels of 15% or below. In 2012 the most common type of organization is Partnership, representing 36% of the industry, while public and private corporations presented very similar frequencies. It is interesting to notice

that, contrarily, the percentage of Cooperatives and Proprietorship firms have only changed slightly, from 15% to 12% and from 4% to 3% respectively.

Figure 11 - Distribution of firms by type of organization for 1992 and 2012.



The significance of the differences found in these two years was tested using once again a t-test for the means of the main demographic variables. The results are presented in figure 12. All variables tested proved to be significantly different between the two years.

Figure 12 – Two sample t-test with unequal variances for demographic characteristics.

Variable	mean ²		p-value
	1992	2012	
Sales ^{3***}	\$69 MM	\$282 MM	<0.01
Assets ^{4***}	\$32 MM	\$165 MM	<0.01
DAR	23%	25%	0.61
Profit***	2.92%	5.63%	<0.01
Number of employees***	152	233	<0.01

NOTE: ***= significantly different at 1% significance level.

²Because values were assessed in categorical questions, the values presented for the means correspond to the average calculated using the intervals' middle points.

³Mean values for sales presented in real 2012 dollars.

⁴ Mean values for assets presented in real 2012 dollars.

The 2012 survey also inquired about the type of ownership regarding whether or not the firms were local (Michigan owned) and whether or not they were family owned. 60% of firms stated to be local and 43% are family businesses. This question was not, however, part of the baseline survey, not allowing comparisons.

All these data show an industry that has a high level of variability and has evolved from a very stylized industry in 1992, usually dominated by one category in the demographic characteristics presented before, to a much more varied and evenly distributed industry nowadays.

To test *Relationship 5*, that there is a significant correlation between demographic characteristics of the firms and their performance level, several chi-square tests were put into place. This series of tests was performed for each year and the demographic variables used were sales, total assets, debt-to-asset ratio (DAR), number of employees and type of business operation. Figure 13 presents the results of these tests.

Figure 13 – Demographic characteristics: significance of the chi-square test and covariance with pretax profit

Variable	1992		2012	
	Covariance	p-value	Covariance	p-value
Sales	0.08*	0.10	--	0.155
Assets	0.06*	0.051	--	0.820
DAR	0.32**	0.032	--	0.251
Employees	-0.04**	0.01	--	0.334
Business Organization	--	0.137	--	0.322

NOTE: **= significantly different at 5% significance level. *=significantly different at 10% significance level

In 1992 there was a significant relationship found for four of the five variables. Sales, assets, DAR and number of employees seem to have been correlated with the firm's performance at the time. Interestingly the signs of the correlation suggest that firms more leveraged on credit

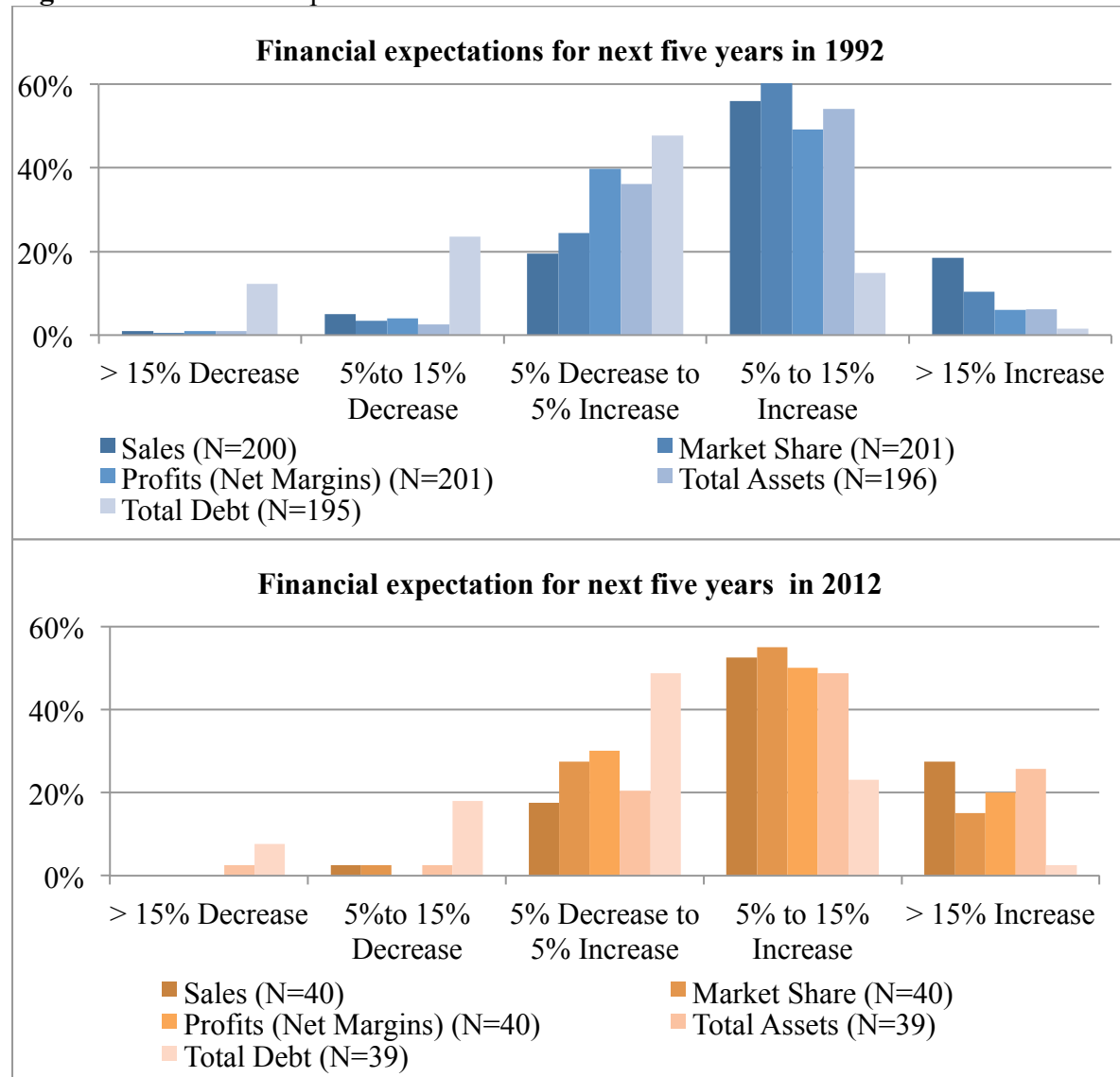
and with less employees were performing better, which could suggest that the most efficient firms were investing in more capital intensive technology and relying less and less on labor. As could be expected, firms with higher sales and assets were performing better.

In the 2012 data, however, there was no correlation found between any of the variables and pretax profit. Similarly there was no relationship found between satisfaction and overall performance for any of the variables. These findings do not support the hypothesis that demographic characteristics are correlated with firm performance, *Relationship 5*, in present time. In fact they seem to suggest that a wide array of characteristics is suitable for success in this particular industry.

Expectations for the future

Another important component of the surveys was the assessment of the respondents' expectations towards the future. The two available data sets allow for an interesting comparison of what the firms foresaw in their future at those two points in time. Figure 14 shows the first of the questions about expectations, in this case the expectations about the financial performance for the following five years.

Figure 14 - Financial expectations for 1992 and 2012.

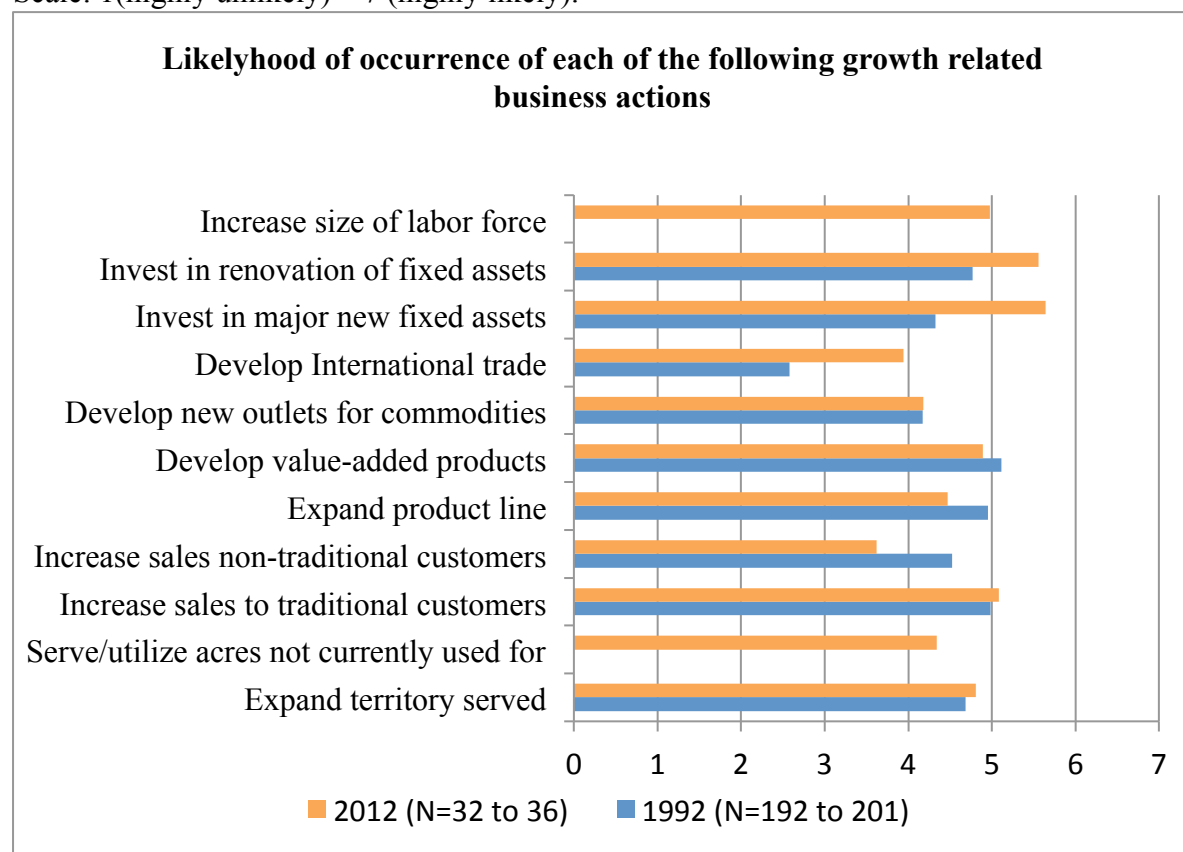


As the figure shows, the industry's expectations have not changed a great deal in 20 years. The majority of firms expected sales, market share, profits and assets to increase 5% to 15% in the following five years, while debt was expected to have very slight variations in both surveys. It is interesting to see, however, that in 2012 there are more participants expecting an increase in growth, either by means of sales, market share or profits, than in the baseline survey. This is consistent with a strong optimistic attitude that can be observed in the survey,

where 97% of respondents stated that they were either optimistic or very optimistic about their organization's ability to perform well over the following five years.

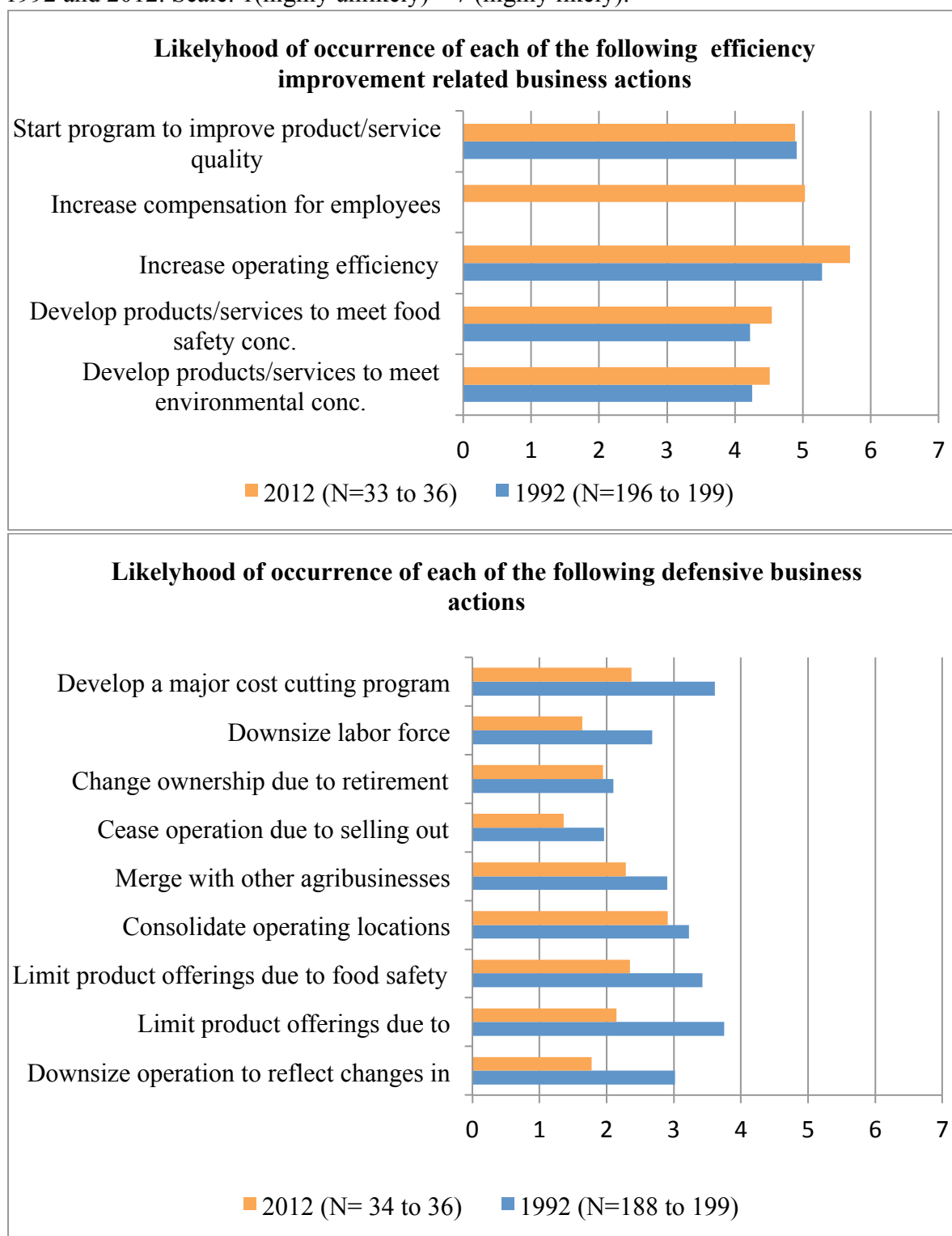
The other measurement of firms' expectations used in the surveys was a question regarding the expected likelihood of engaging in several business actions in the following five years. The results are presented in three graphs, dividing the actions in growth related, performance improvement related and defensive type business actions. This categorization of the business actions was done according to Peterson's change grid framework (Strategic Analysis Workbook, unpublished) for strategic analysis of firms. Figure 15 shows these results.

Figure 15 - Average likelihood of occurrence of several business actions for 1992 and 2012. Scale: 1 (highly unlikely) – 7 (highly likely).⁵



⁵ Business actions assessed in question 29 of the 2012 survey. For the complete wording of each topic please refer to *Appendix B*

Figure 15 (Continued) - Average likelihood of occurrence of several business actions for 1992 and 2012. Scale: 1(highly unlikely) – 7 (highly likely).



The graphs show an industry that is, again, very optimistic about the future. Although more optimistic in the 2012 than in the original 1992 survey, the differences found were not very large. Nevertheless, all nine defensive actions were seen as less likely in 2012, while most of

the growth related and the performance improvement related actions were seen as more likely than twenty years before. The exceptions being “develop value-added products”, “expand product line” and “increase sales to part time farmers and other non-traditional farmers”.

For both aspects of the firm’s expectations shown in the previous figures t-tests were used to, once again, try to understand whether or not the changes found among the surveys were significant.

Figure 16 – Two sample t-test with unequal variances for differences in financial expectations in 1992 and 2012.

Expectation Variable	mean		p-value
	1992	2012	
Sales	3.86	4.05	0.154
Market share	3.78	3.83	0.692
Profit***	3.55	3.90	<0.01
Total Assets**	3.62	3.92	0.05
Total Debt	2.70	2.95	0.124

NOTE: **= significantly different at 5% level. ***=significantly different at 1% level.

Figure 16 shows how, in terms of financial expectation only the increase in expected profit and total assets for the following five years were significant. Similarly in terms of the likelihood of occurrence of the several business actions shown in figure 15, only the decrease in likelihood of defensive actions was significant, as figure 17 shows. In the case of the latter figure, for each type of action the test was performed using an index consisting of the average of all activities.

Figure 17 – Two sample t-test with unequal variance of the likelihood of occurrence of three types of business actions.

Variable	mean		p-value
	1992	2012	
Growth actions index	4.47	4.68	0.236
Efficiency improving actions index	4.65	4.92	0.226
Defensive actions index***	2.93	2.14	<0.01

NOTE: ***= significantly different at 1% significance level

Industry and Firm level Challenges

Besides the expectations the industry participants had for the following years, the 2012 survey also included two questions that assessed what firms believed to be the most significant challenges they faced at the industry level and at the firm level. This question was not present in the 1992 survey and therefore the results are only with respect to 2012.

Figures 18 and 19 show the results for these two questions. The challenges on both questions were ranked according to total count of times they were mentioned and to a second count, this time weighting each time they were mentioned by the rank the respondent attributed to each challenge. In order to do this, the weight of 3 was attributed to challenges chosen as most significant challenge, the weight of 2 to challenges ranked 2nd most significant and the weight of 1 to challenges chosen as 3rd most significant.

Figure 18 - Ranking of challenges for the industry according to significance. N=52

Challenge	Total Count	Weighted Total Count	Rank
Regulations from Government	40	87	1
Talent and Competency Availability	33	68	2
Technological Change	24	51	3
Advocacy and Public Relations	21	47	4
Infrastructures - Transportation	20	39	5
Marketing and technical Knowledge Sources	19	38	6
End-Consumer Preferences	19	33	7
Regulations from supply Chain Partners	16	31	8
Globalization and International Trade	14	29	9
Climate Change	13	26	10
Infrastructures - Utilities	13	26	10
Infrastructures - Communications	12	22	12

The respondents stated that the most important challenges faced at the industry level were regulations from the government, talent and competency availability and technological

change. On the other end of the ranking, the three least significant challenges identified were communications and utilities infrastructures and climate change. These numbers characterize how the respondents observe the industry and can provide some interesting comparisons with the strategic external analysis presented before.

Figure 19 - Ranking of challenges faced by the firm according to significance. N=41

Challenge	Total Count	Weighted Total Count	Rank
Competition	27	61	1
Human Resources	26	49	2
Firm Succession	18	39	3
Sales	18	35	4
Supply Chain Management	16	31	5
Operations	15	32	6
Marketing	15	31	7
Business Strategy	14	35	8
Finance	12	20	9

At the firm level, the challenges identified as most significant were competition, human resources and firm succession. It is interesting to notice that finance, business strategy and marketing were at the bottom of the chart, suggesting the respondents didn't foresee many difficulties in these areas, which are significantly important for growth. This is consistent with the expectations of growth that were described in previous figures. However the sales rank at number four in this list, which does not seem to be consistent with figure 14 that shows that around 80% of the respondents expect high increases in sales over the next five years.

Strategic Management Practices

Looking now to the strategic choices made by firms in the industry, the first aspect the survey points out is whether or not the respondents use a set of planning activities in their strategic

management process. The questions used listed a set of planning activities and asked participants to identify which ones were used in their organization.

Factor analysis was performed on both surveys' data sets and allowed the identification of four categories of planning: Short-range planning, goal setting and review, long-range planning and strategic analysis.

The 1992 survey included 25 activities instead of the 2012's 13. However, the design of the 2012 survey was such that a simple manipulation of the baseline data would convert it to parameters comparable to the 2012 format.

The table in figure 20 shows, for both years, the frequency of usage of each activity under the three possible answers in the survey: "Yes, formally", "Yes, Informally" and "No". The 1992 variables are presented after harmonization with the 2012 format.

Figure 20 - Usage of each planning tool for 1992 and 2012.⁶

Usage of planning activities in the two surveyed years							
Activity	Factor	NO		Yes, Informally		Yes, Formally	
		1992	2012	1992	2012	1992	2012
An annual operating and/or capital budget including sales and/or cash flow projections	Short-Range Planning factor	10%	6%	28%	24%	62%	71%
Mission Statement or Statement of specific business objectives		16%	3%	42%	21%	42%	76%
An environmental management plan	Goals Setting and Review factor	24%	12%	20%	18%	56%	71%
A food safety and/or sustainability management plan		N/A	18%	N/A	6%	N/A	76%
Inclusion of non-management personnel in planning process		18%	24%	59%	45%	23%	30%

⁶ The definitions given for each type of usage was provided in the surveys. Please refer to question 7 in the 1992 survey (*Appendix A*) and question 46 in the 2012 survey (*Appendix B*) for these explanations.

Figure 20 (Continued) - Usage of each planning tool for 1992 and 2012

Usage of planning activities in the two surveyed years							
Activity	Factor	NO		Yes, Informally		Yes, Formally	
		1992	2012	1992	2012	1992	2012
A 3 to 5 year general business plan to guide operations including a facilities plan, personnel plan and/or a financial plan	Long-Range Planning Factor	15%	12%	44%	32%	41%	56%
A management succession plan		N/A	9%	N/A	59%	N/A	32%
A personnel management plan		39%	12%	45%	50%	17%	38%
Review internal strengths and weaknesses		25%	9%	52%	41%	23%	50%
Review opportunities/threats		26%	12%	55%	47%	20%	41%
Analysis of competitors' strengths and weaknesses		24%	18%	58%	56%	18%	26%
An analysis of business conditions including trade area information, legal and regulatory changes, and/or industry trends	Strategic Analysis Factor	12%	12%	60%	53%	28%	35%
An annual analysis of firm performance by department, product line, and/or employee performance		7%	9%	39%	21%	54%	71%

NOTE: 1992: N= 192 to 199; 2012: N= 33 to 34.

The variation of answers shown in the table in figure 20 depicts important changes in the usage of the designated planning tools. For all activities, the frequency of “Yes, Formally” answers has increased from 1992 to 2012, with significantly different mean. Also, the “No” answer is less frequent in all items except for the analysis of business conditions and external environment to the firm and the annual analysis of the firm performance, the two bottom activities in the figure. On average, the non-use of these activities was also significantly different between the two years. The results of the t-tests used to find these significant differences are presented in figure 21.

Figure 21 - results of the t-test for significant differences of means between the 1992 and the 2012 samples.

Variable	Means		p-value
	1992	2012	
“Yes, formally”**	35%	52%	0.04
“Yes, informally”	46%	37%	0.15
“No”**	20%	12%	0.03

NOTE: **= significantly different at 5% level.

This is a very strong shift towards a higher usage of the planning activities listed that, considering the higher levels of satisfaction and financial performance the industry showed in 2012 relative to those of 1992. These findings seem to be consistent with the existence of *Relationship 1*, presented before, as well as studies by Andersen (2000) and Capon et al. (1994), which find positive relationships between strategic planning and performance.

Testing the original variables in the baseline survey individually for correlation with pretax profit yielded the results in figure 22. Because only eight of the 25 variables were found to be significantly correlated with performance, these tests by themselves fail to supply strong support to the hypothesis that strategic planning is positively correlated with performance.

Figure 22 – 1992 variables correlated with profitability: significance of chi-square test and covariance with pretax profit.

Variable	Covariance	p-value
A mission statement	--	0.96
Statement of Specific business objectives	0.13**	0.04
A 3 to 5 year general plan to guide operations	--	0.44
A 3 to 5 year facilities plan	0.03*	0.07
A 3 to 5 years personnel plan	--	0.80
A 3 to 5 years financial plan	--	0.57
An annual operating budget	--	0.46
An annual capital budget	--	0.37
Monthly cash flow projections for the coming year	--	0.25
An annual sales plan	0.07***	<0.01
An annual plan for the use and maintain of facilities	--	0.77
An annual plan for personnel replacements and promotions	--	0.21
An annual budget for each department	--	0.74
A review of internal strengths and weaknesses	0.17**	0.05
A review of opportunities and threats from outside of the firm	--	0.50
An analysis of competitors' strengths and weaknesses	0.03**	0.04
An analysis of trade area data to evaluate market potential	--	0.81
An analysis of business conditions at local or state levels	--	0.22
Analysis of industry trends	0.08***	<0.01
An annual analysis of each department's performance	--	0.86
An annual analysis of each product line's performance	--	0.30
An annual evaluation of each employee's performance	0.18*	0.06
An environmental disaster plan	--	0.13
Input from non-management employees in planning	0.01*	0.09
A wage and salary plan	--	0.36

NOTE: *=10% significance level. **= 5% significance level. ***=1% significance level.

In his analysis of the data, Peterson (1995) used question 8 of the survey to reanalyze this relationship between performance and planning activities, this time considering only the observations where firms were satisfied with the activities, i.e., only for the firms that saw no need for change regarding the activity. By doing this, he was able to establish that for another planning activity there was a significant correlation with pretax profit in these cases. This was the case of the annual analysis of each product line's performance, which showed p-values for the chi-square test of 0.002.

Using the same methodology for the 2012 data, only the two tools, as shown in figure 23 proved to be significantly correlated with pretax profit.

Figure 23 – 2012 planning activity variables correlated with pretax profit.

Planning activities correlated with profit	Covariance	p-value
Mission Statement or Statement of specific business objectives	0.15**	0.03
A 3 to five year general business plan to guide operations including a facilities plan, personnel plan and/or financial plan	--	0.10
An annual operating and/or capital budget including sales and/or cash flow projections	--	0.98
A review of its internal strengths and weaknesses	--	0.73
A review of opportunities and threats from outside the firm	--	0.35
An analysis if competitors' strengths and weaknesses	--	0.10
An analysis of business conditions including trade area information, legal and regulatory changes, and/or industry trends	0.21**	0.01
An analysis of firm performance by department, product line, and/or employee performance	--	0.64
A food safety and sustainability management plan	--	0.35
An environmental management plan	--	0.12
A management succession plan	--	0.20
Non-management personnel included in the planning process	--	0.50

NOTE: **=5% significance level.

Similarly to that what was done with the data for the 1992 survey, the chi-square test was performed again, this time considering only the cases of respondents that were satisfied with their current use of the planning activity, i.e., that answered “No Change” in the following question. This allowed to identify two more variables that showed a positive correlation with profitability, as figure 24 shows.

Figure 24 – 2012 planning activity variables that are correlated with pretax profit when only considering data from satisfied firms.

Planning activities correlated with profit	Covariance	p-value
A 3 to 5 year general business plan to guide operations including a facilities plan, personnel plan and/or a financial plan	0.18*	0.09
An annual analysis of firm performance by department, product line, and/or employee performance	0.16**	0.04

NOTE: *=10% significance level. **=5% significance level.

The same procedure was used to test the planning tool variables for correlation with overall performance satisfaction. As figure 25 presents, the results of this latter set of tests identify four variables that are positively correlated with the satisfaction with overall performance. Interestingly, three of these variables coincide with the ones identified earlier, in figures 23 and 24, providing more robustness to those results.

Figure 25 – 2012 planning activities correlated with overall satisfaction with performance.

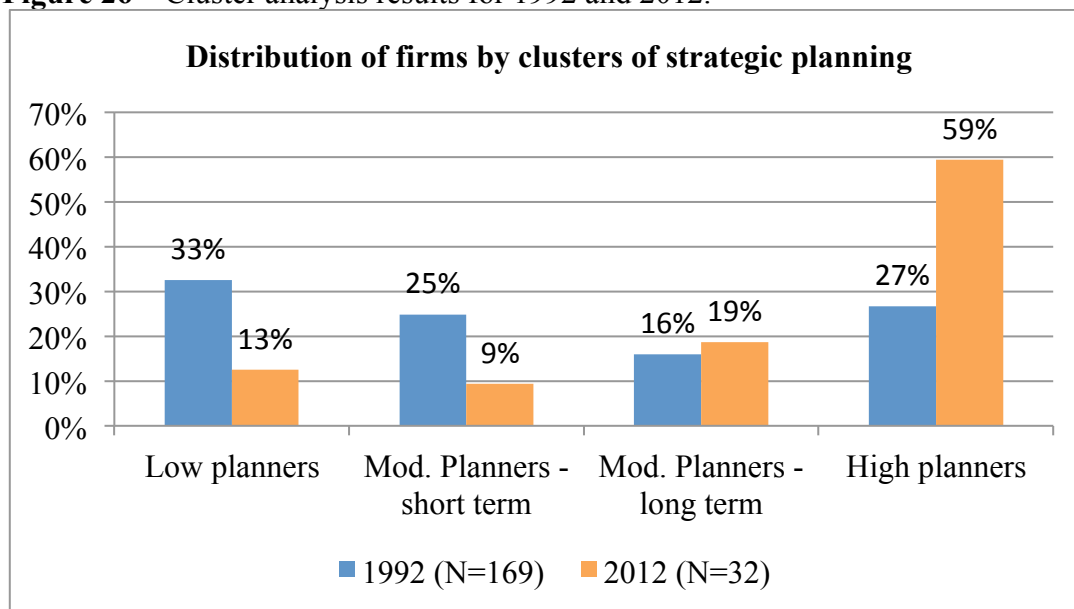
Planning activities correlated with performance satisfaction	Covariance	p-value
Mission Statement or Statement of specific business objectives	0.26***	<0.01
A 3 to five year general business plan to guide operations including a facilities plan, personnel plan and/or financial plan	--	0.46
An annual operating and/or capital budget including sales and/or cash flow projections	0.27*	0.07
A review of its internal strengths and weaknesses	--	0.42
A review of opportunities and threats from outside the firm	--	0.30
An analysis if competitors' strengths and weaknesses	--	0.15
An analysis of business conditions including trade area information, legal and regulatory changes, and/or industry trends	0.12**	0.05
An analysis of firm performance by department, product line, and/or employee performance	0.32**	0.014
A food safety and sustainability management plan	--	0.175
An environmental management plan	--	0.156
A management succession plan	--	0.746
Non-management personnel included in the planning process	--	0.701

NOTE: *= 10% significance level. **= 5% significance level. ***= 1% significance level

One of the main results of this series of tests for the two data sets is the presence of significant correlation for three variables throughout both the surveys.

Turning now to a more holistic approach of the firms' attitudes towards strategic planning a cluster analysis was performed, similarly to what had been done in the original data analysis of the baseline survey (Peterson, 1995). After eliminating missing data and outliers, four significant clusters were identified, segmenting firms as high planners, long-term moderate planners, short-term moderate planners and low planners. Typically high planners were using most of the planning tools and mainly in a formal way, while low planners were not using most of the activities. The moderate planners had an intermediary level of usage for the planning activities and either showed a tendency towards high usage of the 3 to 5 year horizon tools (long-term planners) or not (short-term planners). This classification in clusters was performed for both data sets, yielding the results in figure 26.

Figure 26 – Cluster analysis results for 1992 and 2012.



Regarding the 1992 data, this distribution of firms by clusters was found not to be correlated with pretax profit, thus not supporting the hypothesis of strategic planning and performance being correlated.

Similarly no correlation was found between planning and pretax profit in 2012. However, the 2012 distribution in clusters of strategic planning behavior proved to be correlated with satisfaction with performance, presenting a p-value of 0.033 and a covariance of 0.4839. This is an important result as it establishes a significant and positive correlation between the level of strategic planning in the firm and its satisfaction with performance in this particular industry, supporting the existence of *Relationship 1*.

Figure 26 also shows the shift toward higher levels of strategic planning the industry has gone through between 1992 and 2012, a trend already visible in figure 20.

Regarding the strategic choice of the firms' geographical scope, two separate variables were designed to describe the radius of client location, separating input products and services from commodities, in the case of the 2012 data. When it comes to the baseline data such detailed information was not collected only allowing for one variable that describes the general area served by the organization. Still regarding the 2012 data, a binomial variable was also created for inputs and for commodities, describing whether or not the majority of customers were located within a 30 miles radius. The results of the chi-square tests for correlation with pretax profit can be found in figure 27.

Figure 27 - chi-square test for correlation between geographical scope and pretax profit.

Variables	1992		2012	
	Covariance	p-value	Covariance	p-value
Radius of customers	-0.31***	<0.01	--	--
Radius for inputs	--	--	--	0.627
Radius for commodities	--	--	--	0.537
Majority of inputs within 30 mi	--	--	--	0.516
Majority of commodities within 30 mi	--	--	--	0.578

NOTE: ***= 1% significance level.

Strategic scope seemed to be correlated with performance in 1992. However, none of the variables showed to be correlated with pretax profit in 2012. The 2012 variables were also tested for correlation with the overall satisfaction level of the companies showing no correlation either.

To test the importance of product and service scope in the firms' performance two variables were developed, one that counted the number of input products and services the firms offered and another one that counted the number of different commodities marketed. The results pertaining to both surveyed years can be found in figure 28.

Figure 28 - chi-square test for correlation between product scope and pretax profit.

Variable	1992		2012	
	Covariance	p-value	Covariance	p-value
Input products and services	--	0.944	--	0.547
Commodities	0.38*	0.06	--	0.253

NOTE: *= significant at 10% level.

Only the 1992 variable for the scope of commodities traded showed the presence of a relationship with profit, and this was at a 10% significance level. Furthermore, none of the 2012 variables was found to be correlated with performance satisfaction.

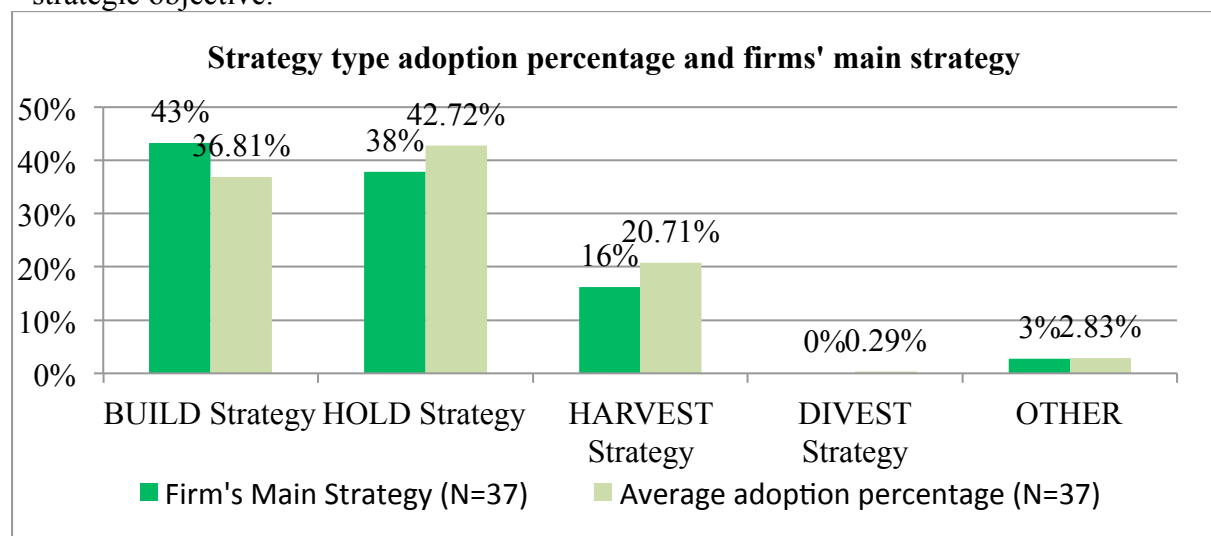
There are some evidences of the importance of strategic scope choices in the 1992 data. However they vanish in the 2012 survey, suggesting the industry has evolved to a situation where these are no longer determinant factors, in the present day. Overall these findings regarding strategic scope do not provide convincing support for the existence of *Relationship 2*, which questioned whether or not strategic choices in terms of geographic and product/service scope were significantly influential for performance.

Appendix D shows the distribution for the firms' product scopes, as well as geographical scopes, in both years.

The survey also asked respondents to describe their portfolio in terms of the percentage of products and services that were managed according to several strategic objectives or mission strategies. The results of this question were intended to be descriptive of the distribution of different stages of the product life cycle found in the industry. Figure 32 uses two variables that were developed based on this question. The first counts the frequency of major strategic mission, i.e. the option that represented a higher proportion in the firm's portfolio. The second variable is the average percentage of each type of strategic mission in the portfolios.

As the figure shows, both the variables characterize an industry that is, once again, much focused in growth. 81% of firms had the majority of their sales originating in products and services managed in a Build or Hold type strategy, and these same two strategic objectives represented about 79% of the firms' overall products, on average. This figure describes an industry that sees most of its products as still in the growth stage of the product life cycle, not yet as mature products. This could be the result of the industry's continuous focus on adapting and tailoring to customer needs, described previously.

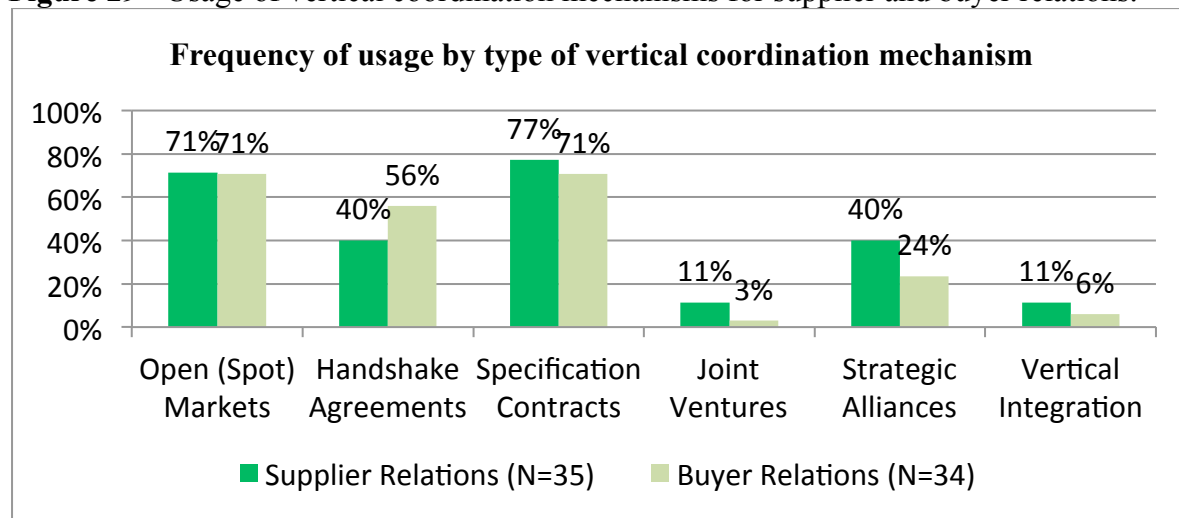
Figure 32 - Frequency of firms' major strategic objective and average percentage of each strategic objective.⁷



⁷ Question 22 in the 2012 survey presented, for each one of the mission strategies or strategic objectives, an explanation. Please refer to *Appendix B* for these explanations.

The other dimension of Strategic management assessed in the 2012 survey considered the vertical coordination mechanisms used by firms in their relationships with their suppliers and their buyers. These characteristics were not assessed in the baseline survey, thus figure 29 describes only for the present day situation, the frequency of each of the different mechanisms, both in relations with suppliers and with buyers.

Figure 29 - Usage of vertical coordination mechanisms for supplier and buyer relations.



This aspect of firm and supply chain governance seemed to be of great interest to the industry and if a relationship could be established between vertical coordination strategy and performance, the industry would have an important guideline for this strategic decision. In order to do these two variables were constructed representing the firms' maximum level of coordination in the vertical coordination continuum proposed by Peterson (2001). Representing supplier and buyer relations respectively, these were tested for correlation with the pretax profit and also overall satisfaction with performance. The results are presented in figure 30.

Figure 30 - chi-square test for correlation between VC choices and performance

Variable	Pretax profit		Satisfaction with performance	
	Covariance	p-value	Covariance	p-value
VC in supplier relations	--	0.493	0.36*	0.09*
VC in buyer relations	--	0.719	- 0.40**	0.03

NOTE: **=significant at 5% significance level. *= significant at 10% significance level

Although there were no correlations with pretax profit, the level of vertical coordination with suppliers showed a positive correlation with performance satisfaction and the level of coordination with buyers presented a negative correlation with performance satisfaction. These results suggest firms are better off by integrating upstream and by not doing so downstream.

Because of this intriguing finding, the firms were separated into firms that had farming operations as their customer and firms that served customers further downstream in the supply chain. The chi-square tests were run again for correlation with satisfaction with performance, this time controlling for these two different stages of the supply chain, yielding the results in figure 31.

Figure 31 - chi-square test for correlation between VC and satisfaction with performance for different stages of the supply chain.

Variable	Satisfaction with performance	
	Covariance	p-value
VC in upstream supplier relations	0.49***	<0.01
VC in upstream buyer relations	--	0.16
VC in downstream supplier relations	--	0.55
VC in downstream buyer relations	- 0.01**	0.05

NOTE: **=5% significance level. ***=1% significance level.

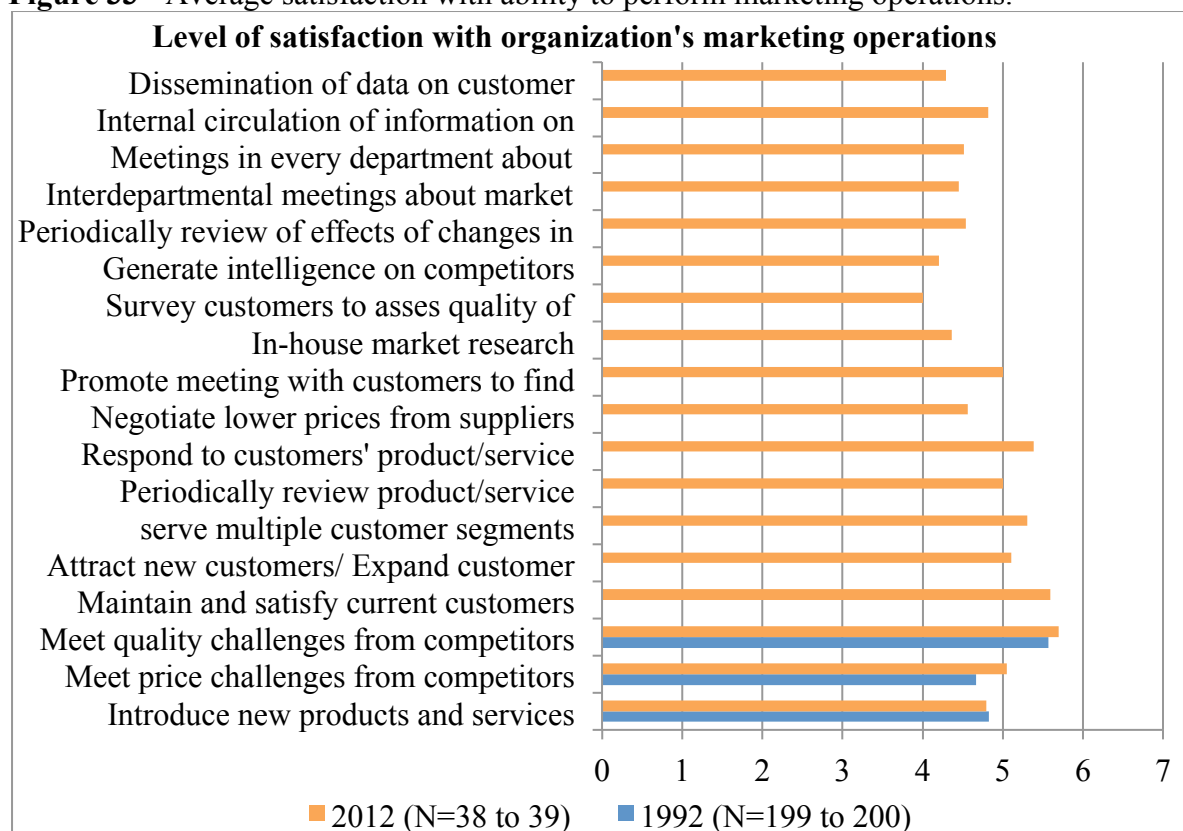
For firms that served businesses downstream of the farm, the only existing correlation found was between higher vertical coordination in buyer relations and lower satisfaction with performance, consistent with the result presented previously. For the firms that serve

agriculture production, input product and service suppliers, only in supplier relations vertical coordination was there a correlation found. These findings seem to suggest that, for this particular industry, the position of the firm in the supply chain determines whether or not a correlation between vertical coordination and performance exists. The existence of *Relationship 3* cannot, however, be established for the entire industry.

Marketing Practices

Finally the 2012 survey also assessed the industry's practices in terms of marketing. This was done resorting to a question that asked respondents to state their satisfaction with organizations' ability to perform several marketing operations. The results can be seen in figure 33.

Figure 33 - Average satisfaction with ability to perform marketing operations.⁸



⁸ Marketing activities assessed in question 28 of the 2012 survey. For the complete wording of each topic please refer to *Appendix B*

The levels of satisfaction in the figure show that the industry is satisfied with its abilities in terms of marketing activities. Nevertheless these levels of satisfaction are, at an average of 4.79, lower than the ones reported in figure 3, relative to business operations.

Proceeding to test these variables individually for correlation with pretax profit led to identify five of these marketing activities where this positive correlation existed, as shown in the table in figure 34. A sixth activity, however, showed a negative correlation.

Figure 34 - levels of significance and covariance for marketing activities correlated with pretax profit.

Marketing Activity	Covariance	p-value
Introduce new products and/or services	--	0.54
Meet price challenges from competitors	--	0.43
Meet quality challenges from competitors	-0.08**	0.05
Maintain and satisfy current customers	0.06**	0.03
Attract new customers/expand customer base	--	0.76
Serve multiple customer segments	--	0.46
Periodically review product/service development processes	0.13***	<0.01
Respond to customers' product/service needs	--	0.40
Negotiate lower prices from suppliers	0.20**	0.02
Promote meetings with customers to find out what products/services they will need in the future	--	0.61
In-house market research	--	0.85
Survey customers at least once a year to assess the quality of products/services	--	0.13
Generate intelligence on competitors	0.09**	0.02
Periodic review of the likely effect of changes in the business environment on customers	--	0.25
Interdepartmental meetings to discuss market trends and developments	--	0.63
Meetings in every department with marketing personnel about customers' future needs	--	0.68
Internal circulation of documents which provide information on customers	--	0.12
Dissemination of data on customer satisfaction on all levels of organization	0.17***	<0.01

NOTE: **=5% significance level. ***=1% significance level.

For all five positively correlated variables there was also a very strong correlation with satisfaction with performance, as is to be expected when comparing two measures of

satisfaction. For the ability to meet competitors' quality challenges, the activity negatively correlated with profit, no significant correlation was found with satisfaction with performance. These results supply some support to *Relationship 4*, which proposes there is a positive correlation between marketing activity and firm performance, despite lacking robustness because of the facts that there is also one negatively correlated activity and that no relationships were found for the majority of the variables. They show that it is important to consider marketing operations in the management process as the ability to perform these activities seems to be related to profit in some instances, for this particular industry.

Discussion

The results from the 2012 survey, presented previously, open the door for a comprehensive analysis of the industry that considers the information gathered from the previous survey and the strategic analysis conducted previously in this paper. This section brings into play these comparisons that are relevant to the research questions approached in this study.

Challenges faced by the industry

The strategic analysis identified consumers' concerns about the environment and health as one of the main market drivers. In this sense they were expected to be found among the main challenges faced at the industry level. While "Advocacy and Public relations" ranks fourth, as could be expected, "End-consumer preferences" is surprisingly in the 2nd half of the chart, at number seven. This seems to suggest that the industry is more concerned about pressures from advocacy groups and company image regarding the environmental and health questions than about the actual consumer preferences. In spite of this, the average value for the satisfaction with ability to perform all 18 marketing related operations shown in figure 33, was 4.79 in a scale of 7. This relatively high level of satisfaction with marketing, combined with the concerns expressed above, seems to raise the questions the industry participants in Michigan should ask themselves: *Are we really addressing consumers' concerns or only making an effort to be in compliance with legal and social requirements? And are there opportunities that competitors do not seem to be taking and could be sources of competitive advantages for our organization?*

Apparently in accordance with this view that the respondents' main concern is about social and legal pressures, "Regulations from Government" is at the top of list for significant challenges at the industry level. Considering that regulations for biofuels, environment and

health are very influential for the agriculture and food supply chains, the industry seems to be identifying these as strategic issues.

International trade and global markets constituted another of the change forces identified. This change force is working to influence the industry in several ways, as it is supporting the increase of demand for agricultural products that is at the source of the increase in aggregate farm income. On the other hand the increase of global competition can introduce higher level of substitution and force some segments, like machinery or fertilizers, to compete on price. By placing this challenge as one of the least significant challenges identified the respondents could be stating they feel prepared to deal with these possible threats and to exploit opportunities. On the other hand it could be that the Michigan industry is failing to expand horizons and consider the important consequences this factor can have. Regarding this point, firms should ask: *How is our business impacted by international trade and international markets and what are we doing to account for this factor?*

“Regulations from supply chain” is ranked in the 8th position in figure 18, which leads to believe that firms either are not aware of the industrial organization trends described by Boelhje (2011) and supported by the industry reports for the national Agribusiness industry used in this study, or they find it easy to manage these alignment and consolidation movements and do not foresee many problems. It is interesting to notice the discrepancy in terms of concern between regulations coming from the government and from the supply chain, more so in an era where supply chain governance, exerted mainly by retailers, has increasing importance and influence in the actions of all firms upstream both for strategic fit reasons (Griffith and Myers, 2004) and for legitimacy reasons (Mueller et al, 2009). Regarding firm level challenges, “Supply Chain Management” is also in the second half of the table, in figure 18, showing once again the relative ease with which firms are facing industrial organization matters. In this case, firms should consider the question: *What are the*

implications the requirements imposed by the supply chain could have and how can we organize our activities to benefit from them?

Various forms of infrastructures were included in the list of challenges after contacts with the MABA, leading to believe there were several problems with transportation, utilities and communications in certain areas of the State, especially the Upper Peninsula. Transportation was the 5th main challenge identified in the question, which is representative of such concerns. However, utilities and communications were the two least significant challenges, which seems to show that the organizations are finding ways to solve these problems and do not consider them to be very significant to their future.

At the firm level, the survey found “Competition” to be the most significant challenge, which is consistent with the findings of the five force analysis for the industry that showed rivalry to be a very strong.

“Finance”, “Business Strategy”, “Marketing” and “Operations” are the four least significant challenges in figure 19, showing a strong sense of comfort with the management and operational sides of the business, consistent with the expectations of growth and the high levels of satisfactions shown by the respondents.

Overall, talent, competencies and human resource management seems to be at the top of managers’ concerns, as these were challenges that were ranked at the top of the chart for both the industry and the firm levels. These findings are consistent with the talent availability problem identified in the strategic analysis. In fact, the most recent volume of the International Food and Agribusiness Management Review was greatly dedicated to the topic of human capital and talent. This shows how the issue is relevant for the industry.

Planning activities and performance

In the past 20 years, a clear change in the use of planning tools was observed, as shown in figures 20. There was a clear and significant increase in the average percentage of “formally used” planning activities and a clear and significant decrease in the average percentage of “not used” activities. This finding is clearly illustrated in figure 26. Overall, Michigan agribusiness firms are taking a more comprehensive approach in their strategic planning activities.

In 2012, five of the thirteen planning activities were found to be correlated with either performance or the firms’ level of satisfaction with performance. Even more interestingly, three of these five tools were also found to be correlated with performance in 1992, pointing out the importance of these activities for the success of the firms and the robustness of the results in the case of these three planning tools. They were: (1) *Mission and objective statements*; (2) *External analysis of the industry characteristics and conditions*; and (3) *Annual operational and capital budgets and projections of sales and/or cash flows*. These findings support the existence of *Relationship 1*, between strategic planning activities and performance. However the fact that only some of the variables were found to be significantly correlated seems to suggest that not all activities are a necessary condition for success, and this can be even more true for an industry as diverse as this one. The fact that three out of these five activities are significant in both the 1992 and 2012 shows and impressive consistency in the results and gives a higher robustness to the suggestion that this means these three activities are very important and influential in the success of Michigan agribusinesses. Given these results, the firms participating in the industry should question themselves: *Are we using the right strategic planning tools for our specific business, especially are we missing any of these that seem to be determinant in my industry?*

In a more aggregate approach to this question, the cluster analysis results showed that although such a relationship was not identifiable in the 1992 data, in 2012 there was a positive and significant correlation between performance and the level of planning undertaken by firms. These findings come to support our hypothesis that performance is positively correlated with strategy. This hypothesis has been the center of some arguments and disagreement in the past, as was mentioned before. The fact that such a relationship has been found does not contradict the view of other studies that, like Boyd (1991) have found in meta-analysis research that this relationship is not always present and sometimes it is even negative. It rather shows that for this particular industry strategic planning and firm success have a positive relationship.

Together with the changes in demographics shown earlier, these results tell the story of an industry that has seen the usage of planning activities increase over the last 20 years and with it the performance and satisfaction indicators.

Geographical and Product/Service strategic scope

In 1992 geographic scope was a determinant factor for performance with firms serving more than 30 miles presenting significantly stronger pretax profit. In the 2012 survey there was no correlation between most frequent geographic location of customers or maximum radius of area served and performance variables. This is an important change, strategically, and could suggest that firms were able to address the challenges in terms of their geographical reach, eliminating possible competitive advantages that came from competitors' different choices in this regard.

Product and service scope were also not correlated with profit or performance satisfaction, both regarding inputs and commodity trading, in either of the surveys. Thus *Relationship 2*, between strategic scope and performance, was not found for this industry.

Vertical Coordination

The level of vertical coordination appears to pend to the less coordinated en of the continuum proposed by Peterson (2001). Spot market and specification contracts are very common but joint ventures and vertical integration are only used by 11% of the respondents or less. These results seem to contradict the supply chain alignments described by Boelhje (1999) in agricultural sectors. However a closer look to the strategic alliances observations shows they are present in 40% of supplier relations and 24% of buyer relations, raising the question if this particular industry is using specification contracts and strategic alliances to align the distribution chains in a way that is consistent with the higher market concentration and competition between entire supply chains scenario presented by this author, or if there are other forces at play in this industry that have kept this movement from being more exuberant.

A positive correlation was found between satisfaction with performance and higher levels of VC in supplier relations. However the correlation with buyer relations VC was negative. Separating firms into input suppliers and firms in other stages of the supply chain led to the determination that the negative effect of buyer relations VC in performance is only significant in stages of the supply chain that are located downstream of the farm. On the other hand, positive correlation of supplier relations VC with performance is only significant for farm input suppliers, upstream.

These intriguing findings show the need for deeper understanding of the industry's characteristics regarding the linkages within the supply chain. In particular, a greater understanding of the role of market structure and the relative bargaining power of supply chain partners may assist in explaining differences in performance satisfaction related to VC decisions at various stages of the supply chain. For example, the buyers of downstream firms are typically wholesalers and retailers who generally have significant market power. Surveyed firms in these stages of the supply chain were less satisfied with performance when they were more integrated with their buyers. A similar argument could also be presented for the positive correlation with satisfaction with performance shown by upstream (of the farm) firms in their supplier relations. These suppliers are typically traders of raw materials and agricultural products, which are by nature commoditized and present low to medium switching costs and therefore these firms may tend to have relatively less market power. Also, interesting to note is that the two situations where no significant effect is found are where the farmer is one of the exchange parties, either the upstream firms' buyers or the downstream firms' suppliers.

One concern regarding these series of VC survey questions is that responses do not adequately represent their vertical coordination decisions. In fact, as Peterson (2001) explains, positioning in the VC continuum is not only a matter of equity and risk, but mainly of control. A contractual relation can commonly include several control mechanisms that give one of the parts very strong powers over the other. This would be a much more integrated relationship than that of a simple specifications contract. If, despite the attempt to clearly explain the mechanisms in the question, the respondents did not understand this point, then the industry might not be so skewed to the less coordinated side of the continuum and might be more in accordance with the expectations.

While no robust support is given to the existence of *Relationship 3*, this would be an interesting research question for future studies, and an important contribution to strategic management in this industry.

Marketing Capabilities

Five of the 18 individual marketing activities were found to be significant and positively correlated with performance. This represents only a small set of the 18 marketing operations identified in the survey. Furthermore, one of the marketing activities was found to be negatively correlated with pretax profit. This is an important area for future research as the role of marketing can be expected to increase significantly as markets become more segmented and dynamic.

Demographic characteristics of the industry

The results of the two surveys showed a significant shift in the majority of the firm characteristics. The industry has clearly grown into a more mature, complex and diverse industry, and with these changes there was an important increase in profitability.

Although some demographic indicators were found to be correlated with performance in 1992, no such relationship was found in 2012, not identifying the presence of *Relationship 5*. That is to say that there is no optimal strategy in terms of demographic characteristics of the firm, within Michigan agribusinesses.

It is interesting to notice that the positive correlations found between size of the firms, measured by demographics like sales and assets, and performance could lead to the idea that

many agribusinesses were below the minimum efficiency scale and faced strong economic challenges in 1992 which led to an important trend of mergers and acquisitions, as Boehlje (1999) describes. This would be consistent with the evolution of strategic management theory as described by Grant (1998). In his book, the author describes the principal concepts and techniques in strategic management during the late 1980s and the early 1990s to be regarding resource analysis of the core competencies. This led to corporate restructuring and business process reengineering, as well as to refocusing and outsourcing. In other words, to reducing costs by achieving economies of scale and focusing on core competencies where that achievement was possible.

Nowadays, the current favorable economic environment for agribusinesses and the fact that the group of firms surveyed showed high heterogeneity could mean that this is a period where firms are typically above the minimum efficiency scale and are pursuing strategies related to growth and differentiation.

The results presented pertaining to these firm characteristics supply the industry with an interesting overview of the competitive environment and, together with the strategic analysis of the national industry, can be used as a valuable planning tool.

Conclusions

The results presented and discussed previously shed some light over the research questions that motivated this thesis.

The challenges identified by the industry suggest that there is not much concern with some of the strategic issues identified previously, like end-consumer preferences and international trade. On the other hand the Government regulations, talent and competency availability and technological change seem to be at the top of the concerns. Because some of the main strategic issues were not identified as the most significant challenges we cannot, however, say that firms are not paying sufficient attention to those problems. The question that rises is whether the firms are unaware of the issues they might face or if they are conscious of them but still identify other areas as more significant challenges that the industry reports and analysts do not point out. It is a question that top management in firms must answer individually.

Strategic planning seems to be correlated with performance, measured by firms' satisfaction with performance. This is shown by the cluster analysis results and the chi-square tests that identified such a relationship for the 2012 results.

In particular three planning activities were found to be consistently correlated with performance in 1992 and 2012, which represents an important factor for managers to consider in this industry. The importance of strategic planning and the literature defending that it is correlated with superior performance are supported by these results.

Geographic and product/service scope were not found to be correlated with performance, for this industry. This could suggest that it of central importance to adapt these characteristics of

the firm to the particular situation, making it consistent and reinforcing, fit as Porter (1996) suggests.

Vertical coordination choices toward more integrated systems are negatively correlated with performance for firms downstream of the farm, when it comes to buyer relations. Simultaneously, strategies leaning towards higher coordination have a positive correlation with performance for firms upstream from the farm, regarding supplier relations. This suggests that for this particular industry input suppliers are better off if they vertically coordinate efforts with their suppliers. At the same time downstream firms are worse off if they do the same with their buyers. No other conclusions can be taken in this regard. These findings raise new research questions, identifying this industry as an interesting subject for further studies attempting to understand why this is the case.

For some of the marketing operations variables there was a positive correlation between the firm satisfaction with their marketing activities and pretax profit. Also, there was one activity that was negatively correlated, countering the hypothesized sign for this relationship. Unfortunately these findings do not allow conclusions about an established relationship between marketing abilities and performance, since they are contradictory and account only for a small group of the activities tested. However they raise the suggestion that such a relationship is possible, which could be the starting point for further research that focused specifically on this question.

Returning to the changes the industry has undertaken from 1992 to 2012, this thesis paints a picture of strong demographic and strategic planning differences but milder changes in satisfaction and expectations for the future.

The industry wide distribution of sales has total assets has dramatically changed from a high concentration below five million dollars on both characteristics in 1992 to a much more

evenly distributed situation in 2012. A similar trend of more even distribution was found in the number of employees and the type of business organization. On the contrary, the distribution of pretax profit margins became more concentrated with a clear shift toward higher profit margins, as 48% of the respondents stated to earn more than 5% of sales as opposed to 24% in 1992.

These changes toward higher sales, higher assets and higher profitability justify the increased satisfaction and optimism levels found in 2012, although optimism and satisfaction in 1992 were high to begin with.

In terms of strategic planning the changes were also very remarkable, as the percentage of low planners, the most frequent category in 1992, dropped and the percentage of high planners significantly increased becoming the most frequent category in 2012 with 59% of the respondent firms.

When it comes to describing strategic planning practices individually, the results show a high level of usage for the planning activities assessed. On average the percentage of non users for all thirteen activities was 12%. Only three of these activities recorded values over this value. In comparative terms, this is an important decrease as the 1992 average was 20%.

Overall this study shows that the industry was able to assess its main issues in the past twenty years and address them, turning more to strategic planning practices and substantially improving its performance. Michigan agribusinesses mainly present a sound economic position and seem to be focused on the future with strong optimism about what is to come, not disregarding, however, the challenges ahead.

APPENDICES

STRATEGIC PLANNING
IN MICHIGAN AGRIBUSINESSES:
A QUESTIONNAIRE



MICHIGAN STATE UNIVERSITY
1992

STRATEGIC PLANNING IN MICHIGAN AGRIBUSINESSES

The Agribusiness Strategic Planning Project is designed to gather information about the strategic planning efforts being used by Michigan agribusinesses. This questionnaire is designed to ask about your views of your organization's future, its planning activities, some of its management education needs, and the nature of its operation.

Your opinion is important to us. To ensure your organization's privacy, the questionnaire is identified by number only.

Please use the enclosed self-addressed envelope to return the completed questionnaire.

Thank you for your time and effort.

Copyright 1992 Michigan State University

SURVEY ABOUT STRATEGIC PLANNING

Q1. Please indicate which of the following best describes the organization for which you are responsible: (Please check the one item which best applies.)

- | | |
|---------------------------------|--------------------------|
| A. Main Office | <input type="checkbox"/> |
| B. Branch Office | <input type="checkbox"/> |
| C. Sales Representative(s) Only | <input type="checkbox"/> |

Please respond to all survey questions based on the range of business operations for which you are responsible.

Part 1: ATTITUDES ABOUT YOUR ORGANIZATION'S FUTURE

Q2. Please indicate your level of satisfaction with your organization's current performance in each of these following areas: (Please circle the number which best applies for each item.)

	Dissatisfied						7			Very Satisfied
A. Sales	1	2	3	4	5	6	7	8	9	10
B. Market Share	1	2	3	4	5	6	7	8	9	10
C. Profits (Net Margins)	1	2	3	4	5	6	7	8	9	10
D. Asset Management	1	2	3	4	5	6	7	8	9	10
E. Management of Debt	1	2	3	4	5	6	7	8	9	10

Q3. Based on your most realistic expectations for the next five years, please indicate the annual percentage change you expect in the following areas: (Please check the appropriate box for each item.)

	More Than 15% Decrease	5% to 15% Decrease	5% Decrease to 5% Increase	5% to 15% Increase	More Than 15% Increase
A. Sales	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Market Share	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Profits (Net Margins)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Total Assets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Total Debt	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q4. Please indicate how satisfied you are with your organization's current ability to do the following business operations: (Please circle the number which best applies for each item.)

	Dissatisfied					Very Satisfied				
A. attract new, qualified employees	1	2	3	4	5	6	7	8	9	10
B. keep qualified employees	1	2	3	4	5	6	7	8	9	10
C. raise funds needed to support operations	1	2	3	4	5	6	7	8	9	10
D. introduce new products or services	1	2	3	4	5	6	7	8	9	10
E. maintain property, plant, and equipment	1	2	3	4	5	6	7	8	9	10
F. expand property, plant, and equipment	1	2	3	4	5	6	7	8	9	10
G. manage credit	1	2	3	4	5	6	7	8	9	10
H. meet price challenges from competitors	1	2	3	4	5	6	7	8	9	10
I. meet quality challenges from competitors	1	2	3	4	5	6	7	8	9	10
J. meet all environmental regulations	1	2	3	4	5	6	7	8	9	10
K. keep current with technology changes	1	2	3	4	5	6	7	8	9	10
Other operations (Please specify)										
L. _____	1	2	3	4	5	6	7	8	9	10
M. _____	1	2	3	4	5	6	7	8	9	10

Q5. Based on your most realistic expectations for the next five years, what change do you expect in your organization's ability to do the following business operations: (Please circle the number which best applies for each item.)

	Declining Ability				No Change		Increasing Ability			
A. attract new, qualified employees	1	2	3	4	5	6	7	8	9	
B. keep qualified employees	1	2	3	4	5	6	7	8	9	
C. raise funds needed to support operations	1	2	3	4	5	6	7	8	9	
D. introduce new products or services	1	2	3	4	5	6	7	8	9	
E. maintain property, plant, and equipment	1	2	3	4	5	6	7	8	9	
F. expand property, plant, and equipment	1	2	3	4	5	6	7	8	9	
G. manage credit	1	2	3	4	5	6	7	8	9	
H. meet price challenges from competitors	1	2	3	4	5	6	7	8	9	
I. meet quality challenges from competitors	1	2	3	4	5	6	7	8	9	
J. meet all environmental regulations	1	2	3	4	5	6	7	8	9	
K. keep current with technology changes	1	2	3	4	5	6	7	8	9	
Other operations (Please repeat from Q4)										
L. _____	1	2	3	4	5	6	7	8	9	
M. _____	1	2	3	4	5	6	7	8	9	

Q6. Based on your most realistic expectations for the next five years, how likely is your organization to engage in any of the following business actions: (Please circle the number on the scale which best applies in each item.)

	Unlikely										Highly Likely
A. expand territory served	1	2	3	4	5	6	7	8	9	10	
B. increase sales to traditional customers	1	2	3	4	5	6	7	8	9	10	
C. increase sales to part-time farmers and other non-traditional customers	1	2	3	4	5	6	7	8	9	10	
D. expand product line	1	2	3	4	5	6	7	8	9	10	
E. develop value-added products	1	2	3	4	5	6	7	8	9	10	
F. develop new outlets for commodities	1	2	3	4	5	6	7	8	9	10	
G. develop international trade	1	2	3	4	5	6	7	8	9	10	
H. develop products/services to help agricultural producers meet environmental concerns	1	2	3	4	5	6	7	8	9	10	
I. develop products/services to help agricultural producers meet food safety concerns	1	2	3	4	5	6	7	8	9	10	
J. increase operating efficiency	1	2	3	4	5	6	7	8	9	10	
K. invest in major new fixed assets	1	2	3	4	5	6	7	8	9	10	
L. invest in renovation of fixed assets	1	2	3	4	5	6	7	8	9	10	
M. start program to improve product/service quality	1	2	3	4	5	6	7	8	9	10	
N. downsize your operation to reflect changes in markets	1	2	3	4	5	6	7	8	9	10	
O. limit product offerings due to environmental concerns	1	2	3	4	5	6	7	8	9	10	
P. limit product offerings due to food safety concerns	1	2	3	4	5	6	7	8	9	10	
Q. consolidate operating locations	1	2	3	4	5	6	7	8	9	10	
R. merge with another agribusiness	1	2	3	4	5	6	7	8	9	10	
S. cease operation due to selling out	1	2	3	4	5	6	7	8	9	10	
T. change ownership due to retirement	1	2	3	4	5	6	7	8	9	10	
U. layoff workers	1	2	3	4	5	6	7	8	9	10	
V. develop a major cost cutting program	1	2	3	4	5	6	7	8	9	10	
Other: (Please specify below)											
W. _____	1	2	3	4	5	6	7	8	9	10	
X. _____	1	2	3	4	5	6	7	8	9	10	
Y. _____	1	2	3	4	5	6	7	8	9	10	

Part 2: PLANNING INVENTORY

Q.7 A number of planning activities are listed below. We would like to know which ones are used in your organization. The column headings have the following meanings:

YES, FORMALLY means that you regularly engage in the activity and you produce a formal, written document to guide management action.

YES, INFORMALLY means that you regularly engage in the activity but rather than produce a formal, written document you keep the ideas either in your mind or in some informal written form.

NO means that you do not regularly engage in the activity either formally or informally.

Does your organization use: (Please check the appropriate column for each item.)	YES, FORMALLY	YES, INFORMALLY	NO
A. a mission statement (or a statement of business purpose)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. a statement of specific business objectives?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. a 3 to 5 year general plan to guide operations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. a 3 to 5 year facilities plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. a 3 to 5 year personnel plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. a 3 to 5 year financial plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. an annual operating budget?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. an annual capital budget?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. monthly cash flow projections for the coming year?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. an annual sales plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. an annual plan for the use and maintain of facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. an annual plan for personnel replacements and promotions?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M. an annual budget for each department?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N. a review of its internal strengths and weaknesses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O. a review of opportunities and threats from outside the firm?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P. an analysis of competitors' strengths and weaknesses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q. an analysis of trade area data to evaluate market potential?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
R. an analysis of business conditions at local or state levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S. an analysis of industry trends?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T. an annual analysis of each department's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
U. an annual analysis of each product line's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
V. an annual evaluation of each employee's performance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
W. an environmental disaster plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X. input from non-management employees in planning?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Y. a wage and salary plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other: (Please specify below)			
Z. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Za. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Zb. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q8. We would like to know if you want to change your current use of the various planning activities presented in Q7. The column headings have the following meanings:

NO CHANGE means you are satisfied with your organization's use of a particular activity (even if you are not currently using it).

IMPROVE CURRENT USE means you are currently using a particular activity but want improvement in your use.

BEGIN USE means you are not using a particular activity but want to begin using it.

**What change would you like to make
your organization's use of:**

(Please check the appropriate column in each case.)

	NO CHANGE	IMPROVE CURRENT USE	BEGIN USE
A. a mission statement?	[]	[]	[]
B. a statement of specific business objectives?	[]	[]	[]
C. a 3 to 5 year general plan to guide operations?	[]	[]	[]
D. a 3 to 5 year facilities plan?	[]	[]	[]
E. a 3 to 5 year personnel plan?	[]	[]	[]
F. a 3 to 5 year financial plan?	[]	[]	[]
G. an annual operating budget?	[]	[]	[]
H. an annual capital budget?	[]	[]	[]
I. monthly cash flow projections for the coming year?	[]	[]	[]
J. an annual sales plan?	[]	[]	[]
K. an annual plan for the use and maintain of facilities?	[]	[]	[]
L. an annual plan for personnel replacements and promotions?	[]	[]	[]
M. an annual budget for each department?	[]	[]	[]
N. a review of its internal strengths and weaknesses?	[]	[]	[]
O. a review of opportunities and threats from outside the firm?	[]	[]	[]
P. an analysis of competitors' strengths and weaknesses?	[]	[]	[]
Q. an analysis of trade area data to evaluate market potential?	[]	[]	[]
R. an analysis of business conditions at local or state levels?	[]	[]	[]
S. an analysis of industry trends?	[]	[]	[]
T. an annual analysis of each department's performance?	[]	[]	[]
U. an annual analysis of each product line's performance?	[]	[]	[]
V. an annual evaluation of each employee's performance?	[]	[]	[]
W. an environmental disaster plan?	[]	[]	[]
X. input from non-management employees in planning?	[]	[]	[]
Y. a wage and salary plan?	[]	[]	[]
Other: (Please specify below)			
Z. _____	[]	[]	[]
Za. _____	[]	[]	[]
Zb. _____	[]	[]	[]

Part 3: EDUCATIONAL NEEDS

Q9. Please indicate your organization's level of interest in educational programs on the following topics: (Please check the appropriate box for each item.)

	Not Interested	Somewhat Interested	Very Interested
A. Strategic Planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Market Scanning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Internal Assessment of Strengths and Weaknesses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Budgeting Procedures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Personnel Practices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Financial Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Marketing Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Information Systems	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Efficient Production Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. Small Business Ownership and Management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
L. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q10. Please indicate your organizations level of interest in educational programs designed for the following lengths of time: (Please check the appropriate box for each item.)

	Not Interested	Somewhat Interested	Very Interested
A. One day seminars	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Three-day programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. One-week programs	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. One-evening-per-week programs lasting several weeks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q11. Please indicate your organization's level of interest in having the following groups attend educational programs on selected management topics: (Please check the appropriate box for each item.)

	Not Interested	Somewhat Interested	Very Interested
A. General manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Department Heads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. First line supervisors	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. The business owner(s)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Other _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q12. What months of the year would be good for scheduling training programs: (Please check all that apply)

- | | | | |
|------------|-----|-------------|-----|
| A January | [] | G July | [] |
| B February | [] | H August | [] |
| C March | [] | I September | [] |
| D April | [] | J October | [] |
| E May | [] | K November | [] |
| F June | [] | L December | [] |

Q13. For each of the following items, please circle the one number which corresponds with your organization's views.

A. We need to improve the quality of management throughout our organization.

- Strongly Agree 1
 Agree 2
 Neutral 3
 Disagree 4
 Strongly Disagree 5

B. We are highly satisfied with the quality and availability of workers with two-year agricultural technology degrees from Michigan State.

- Strongly Agree 1
 Agree 2
 Neutral 3
 Disagree 4
 Strongly Disagree 5

C. We expect to hire more four-year graduates in Agribusiness Management to fill sales or management positions.

- Strongly Agree 1
 Agree 2
 Neutral 3
 Disagree 4
 Strongly Disagree 5

D. We are aware that some community colleges in Michigan are beginning to offer two-year associate degrees in agribusiness management.

- Yes 1
 No 2

E. Circle the one response which best completes this sentence: In hiring students with agribusiness degrees, we would generally view students with an MSU agricultural technology certificate as being _____ students with community college associate degrees.

- better qualified than 1
 about equally qualified with 2
 less qualified than 3

Part 4: DEMOGRAPHIC INFORMATION

Q14. Please provide the following information to help us understand the differences among the businesses we are surveying.

A. Please list your organization's sales for:

1989 \$ _____ 1990 \$ _____ 1991 \$ _____

B. Please list your organization's total assets for:

1989 \$ _____ 1990 \$ _____ 1991 \$ _____

C. What was your organization's total long-term debt for:

1989 \$ _____ 1990 \$ _____ 1991 \$ _____

D. Please indicate your organization's average annual pretax profit for the last three years: (Owner corporations should include owner compensation and withdrawals as part of profit.) (Please check the one item which best applies).

more than 5% of sales ☐]
from 2% to 5% of sales ☐]
from .5% to 2% of sales ☐]
breakeven (-.5% to 5% of sales) ☐]
loss (over -.5% of sales) ☐]

E. Please indicate your organizations's total number of employees:

Number of employees _____

F. Please indicate what type of business organization your firm has: (Please check the one item which applies.)

proprietorship ☐]
public corporation ☐]
private corporation ☐]
partnership ☐]
cooperative ☐]

G. How large an area does your organization serve? A radius of: (Please check the one item which applies.)

10 miles or less ☐]
10.1 to 20 miles ☐]
20.1 to 30 miles ☐]
over 30 miles ☐]

Q15. Please indicate the approximate percent of your total sales represented by each of the following areas: (Please check the appropriate column for each item.)

PRODUCT INPUTS SUPPLIED	Not Handled	----- PERCENT OF TOTAL SALES -----			
		1% to 10%	10% to 30%	30% to 50%	Over 50%
A. Chemicals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Fertilizer--bulk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
C. Fertilizer--bags	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. Seed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
E. Petroleum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Farm store	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
G. Major equipment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Feed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specify any other inputs handled:					
I. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COMMODITIES MARKETING					
L. Wheat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
M. Corn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
N. Soybeans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
O. Oats	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
P. Canola	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Q. Dry Edible Beans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specify any other commodities marketed:					
R. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
T. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SERVICES PROVIDED					
U. Field scouting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
V. Soil testing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
W. Custom application--liquid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
X. Custom application--dry	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Specify other services:					
Y. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Z. _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AA. RETAIL SALES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BB. WHOLESALE SALES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q16. Please indicate which of the following services you offer: (Please check all that apply.)

- A. Railroad []
- B. Forward contracts []
- C. Basis contracts []
- D. Minimum price contracts []
- E. Hedge-to-arrive []

Please specify any other special services:

- F. _____
- G. _____
- H. _____

Q17. Considering your answers to all the questions in the survey, how optimistic or pessimistic are you about your organization's ability to perform well over the next five years? (Please check the item which best applies.)

- A. very optimistic []
- B. optimistic []
- C. unsure []
- D. pessimistic []
- E. very pessimistic []

Thank you very much for your help and cooperation. Your opinion on each question counts a great deal.

If you would like to share any additional comments, please write them in the box below.

Appendix B – The 2012 Survey

2012 Survey of Strategic Management in Michigan Agribusinesses

PARTICIPANT CONSENT

Dear Michigan Agribusiness:

Twenty years ago, Professor Chris Peterson of Michigan State University conducted a survey of Michigan agribusiness firms in order to assess the industry's strategic planning capabilities and to describe the state of the industry. We propose to revisit this important work. We ask for your assistance to conduct a similar survey that will help the industry to better understand the current strategies employed by Michigan agribusiness firms, the strategic management processes used by firms to develop their strategies, and how these strategies have evolved over time. Based on this study, we intend to generate knowledge that can assist Michigan agribusiness firms in overcoming the challenges they face of today's dynamic competitive environment and ultimately enhance the success of their firms. The results of the survey will be made available to you through the Michigan Agribusiness Association.

We invite all Michigan agribusiness firms to provide their valuable insight and to participate in this survey. Given the breadth of the questions included, we suggest that a person with deep knowledge about the business such as the agribusiness owner or general manager to answer it. We estimate it will take the respondent no more than 30-45 minutes to complete the survey.

Participation in this study is voluntary; you may refuse to answer any particular question, and may withdraw at anytime without penalty. If you are willing to participate you may indicate that by proceeding on to the survey. What you tell us will be kept private and strictly confidential. Your privacy will be protected to the maximum extent allowable by law. The surveys will be carefully organized through assigning a number to each of the participants to separate their responses and any identifying information. Any identifying information will be stored in a password-protected file accessible only to the research investigators. The results of this study may be published or presented at professional meetings, but the identities of all research participants will remain confidential.

If you have questions about the survey or how the study works please contact Dr. Brent Ross, 317B Agriculture Hall, Michigan State University, East Lansing, MI 48824; by phone (517) 355-2266; or by email ross@msu.edu. Please leave a message if there is no immediate answer and we will call you back right away.

If you have questions or concerns about your rights as a study participant, or are dissatisfied at any time, you may contact – anonymously if you wish – the Human Protection Programs at Michigan State University by phone: (517) 355-2180; fax 432-4503; or email: hrb@msu.edu, or regular mail: 207 Olds Hall, East Lansing, MI, 48824.

Thank you for helping with this important study.

Sincerely,

R. Brent Ross
Assistant Professor

H. Christopher Peterson
Professor
Nowlin Chair of Consumer-Responsive Agriculture
Director, MSU Product Center for Agriculture and Natural Resources

Copyright 2012 Michigan State University

2012 Survey of Strategic Management in Michigan Agribusinesses

PARTICIPANT INFORMATION

1. Please indicate the ZIP CODE where your organization is located.

2. How long (in years) has your organization been in business?

3. Which of the following BEST describes your position within your organization?

- ☐ Owner/ Partner
- ☐ Executive Officer (i.e. CEO, COO, CFO, etc.)
- ☐ General Manager
- ☐ Other Manager (please specify)

4. Which of the following BEST describes the organization for which you are responsible?

- ☐ Main Office (Company Headquarters)
- ☐ Branch Office (National)
- ☐ Branch Office (Regional)
- ☐ Branch Office (Local)
- ☐ Other (please specify)

5. Is your organization a locally-owned firm (i.e. Michigan-owned)?

- ☐ Yes
- ☐ No

6. Is your organization a family-owned business?

- ☐ Yes
- ☐ No

2012 Survey of Strategic Management in Michigan Agribusinesses

7. What organizational type BEST describes your firm?

- ☐ Proprietorship
- ☐ Partnership, LLC, or S-Corporation
- ☐ Public C-Corporation
- ☐ Private C-Corporation
- ☐ Cooperative
- ☐ Other (please specify)

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 1: INDUSTRY CHARACTERISTICS

The following set of questions ask you to describe the nature of your industry.

8. On a scale of 1-7, how would you describe the nature of your industry according to the following characteristics.

	1 - Low	2	3	4	5	6	7 - High
Average annual growth rate of sales in your industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The frequency with which marketing practices must be changed to keep up with the market and competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The likelihood of a new competitor being able to successfully enter the market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extent to which the actions of competitors are predictable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extent to which demand and consumer tastes are easy to forecast	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The rate at which products/services become obsolete in the industry	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extent to which production/service technology in your industry is changing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extent to which you are able to negotiate favorable purchasing terms with suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extent to which you are able to negotiate favorable selling terms with buyers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The extent to which government regulation inhibits your ability to operate/expand your business	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. On the following scale, please indicate how you would characterize the competitive environment within which your firm operates.

<input type="radio"/> 1 - Very safe, little threat to the survival and well-being of my firm.	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7 - Very risky, one false step can mean my firm's undoing.
---	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	--

10. On the following scale, please indicate how you would characterize the competitive environment within which your firm operates.

<input type="radio"/> 1 - Rich in investment and marketing opportunities	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7 - Very stressful, exacting, hostile; very hard to keep afloat
--	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	---

2012 Survey of Strategic Management in Michigan Agribusinesses

11. On the following scale, please indicate how you would characterize the external environment within which your firm operates.

<input type="radio"/> 1 - An environment that my firm can control and manipulate to its own advantage, such as a dominant firm has in an industry with little competition and few hindrances	<input type="radio"/> 2	<input type="radio"/> 3	<input type="radio"/> 4	<input type="radio"/> 5	<input type="radio"/> 6	<input type="radio"/> 7 - A dominating environment in which my firm's initiatives count for very little against the tremendous competitive, political or technological forces
--	-------------------------	-------------------------	-------------------------	-------------------------	-------------------------	---

12. What are the 3 MOST significant challenges that YOUR INDUSTRY faces? (Check ONLY 1 item per column in order to rank the 3 most significant).

	MOST Significant	2nd MOST Significant	3rd MOST Significant
Advocacy and Public Relations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
End-Consumer Preferences	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Climate Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Globalization and International Trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infrastructure - Communications	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infrastructure - Transportation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Infrastructure - Utilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Market and Technical Knowledge Sources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulations from Government	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulations from Supply Chain Partners	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talent and Competency Availability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Technological Change	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other significant challenges (please specify)			
<input type="text"/>			

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 2: FIRM CHARACTERISTICS

The following set of questions ask you to describe the nature and scope of your organization.

13. How would you describe the nature of your CORE business? For example, "Our firm is an aggregator and marketer of grain" or "Our firm is a retail provider of agronomic products and services"

14. Does your organization market input supplies or services? If NO, please skip to question #18

☐ YES

☐ NO

15. Please indicate the approximate percent of your total sales represented by each of the following INPUT SUPPLY products or services that you provide. (Please check the appropriate column for each item.)

	Not handled	1% to 10%	11% to 30%	31% to 50%	over 50%	Don't know
Crop protectants	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fertilizer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Seed and/or plant material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Feed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Petroleum	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Custom work (application, harvest, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Precision agriculture (field mapping, data management, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Transportation/Logistics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Farm equipment/Repair	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Animal health	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Building materials/construction	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other input supply products or services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please specify any other input supply products or services handled

2012 Survey of Strategic Management in Michigan Agribusinesses

16. Please indicate the location(s) of customers served by your organization for each of the following INPUT SUPPLY products or services provided. (Please check all locations that apply for each item. If the answer is the same for ALL input supply products and services you only need to use the first row.)

	Within 30 miles	Are the majority of these customers within 30 miles? (Check if YES)	In-State	Regional (Border States)	Other States in the U.S.	International	N/A
ALL INPUT SUPPLY PRODUCTS and SERVICES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Crop protectants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fertilizer	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Seed and/or plant material	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Feed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Petroleum	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Custom work (application, harvest, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Precision agriculture (field mapping, data management, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transportation/Logistics	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Farm equipment/Repair	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Animal health	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Building materials/construction	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other input supply products or services	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

17. Please indicate what percentage of the inputs mentioned above are sold through the following types of distribution channels:

	Not handled	1% to 10%	11% to 30%	31% to 50%	over 50%	Don't know
Retail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wholesale	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (please specify)	<input type="text"/>					

18. Does your organization market commodities or other agricultural products? If NO, please skip to question #22.

- ☐ YES
☐ NO

2012 Survey of Strategic Management in Michigan Agribusinesses

19. Please indicate the approximate percent of your total sales represented by each of the following MARKETED commodities or other agricultural products. (Please check the appropriate column for each item.)

	Not handled	1% to 10%	11% to 30%	31% to 50%	over 50%	Don't know
Com	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Soybeans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Wheat	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beans (dry edible)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sugar beets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fruit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Vegetables	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Forages	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dairy (including milk)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Beef	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Poultry (including eggs and broilers)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Swine/Pork	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other (Please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other commodities marketed

2012 Survey of Strategic Management in Michigan Agribusinesses

20. Please indicate the location(s) of customers served by your organization for each of the following MARKETED commodities or other agricultural products. (Please check all locations that apply for each item. If the answer is the same for ALL marketed commodities and/or other agricultural products you only need to use the first row.)

	Within 30 miles	Are the majority of these customers within 30 miles? (Check if YES)	In-State	Regional (Border States)	Other States In the U.S.	International
ALL MARKETED COMMODITIES	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Corn	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Soybeans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wheat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beans (dry edible)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sugar beets	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fruit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Vegetables	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Forages	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Dairy (including milk)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Beef	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Poultry (including eggs and broilers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Swine/Pork	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other (Please specify below)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

21. Please indicate which of the following marketing services your firm offers. (Check all that apply).

- ☐ Forward contracts
- ☐ Basis contracts
- ☐ Minimum price contracts
- ☐ Hedge-to-arrive
- ☐ Railroad Access
- ☐ Access to other transportation
- ☐ Other marketing services (please specify)

2012 Survey of Strategic Management in Michigan Agribusinesses

22. Given below are descriptions of several alternative mission strategies. Depending upon the context, each of these descriptions may represent the strategy for all, only a fraction, or none of your organization's products or services. Please indicate below what percentage of your organization's current total sales revenue is accounted for by products/services represented by each of these descriptions. Your answers should total 100%.

BUILD Strategy--Increase sales and market share, be willing to accept low returns on investment in the short-to-medium term, if necessary.	<input type="text"/>
HOLD Strategy--Maintain market share and obtain a reasonable return on investment	<input type="text"/>
HARVEST Strategy--Maximize profitability and cash flow in the short-to-medium term, be willing to sacrifice market share if necessary	<input type="text"/>
DIVEST Strategy--Prepare for sale, liquidation, or bankruptcy	<input type="text"/>
OTHER (please specify below)	<input type="text"/>

23. Please indicate which mechanisms your firm uses to coordinate transactions between your trading partners. (Check all that apply).

	Supplier Relationships	Buyer Relationships
Open (Spot) Markets	<input type="checkbox"/>	<input type="checkbox"/>
Handshake Agreements	<input type="checkbox"/>	<input type="checkbox"/>
Specification Contracts	<input type="checkbox"/>	<input type="checkbox"/>
Joint Ventures	<input type="checkbox"/>	<input type="checkbox"/>
Strategic Alliances	<input type="checkbox"/>	<input type="checkbox"/>
Vertical Integration (Grow/Use own supply)	<input type="checkbox"/>	<input type="checkbox"/>
Other (Please specify below)	<input type="checkbox"/>	<input type="checkbox"/>

Describe other coordination mechanisms used:

<input type="text"/>	<input type="button" value="↑"/>
<input type="text"/>	<input type="button" value="↓"/>

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 3a: ORGANIZATIONAL PERFORMANCE

The following set of questions ask you to reflect on the performance of your organization and your expectations for future change.

24. On the scale provided, please indicate your level of satisfaction with your organization's current performance in each of these following areas.

	1 - Very Dissatisfied	2	3	4	5	6	7 - Very Satisfied
Sales	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Market Share	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Profits (Net Margins)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Asset Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Management of Debt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Overall Performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

25. Based on your most realistic expectations for the next five years, please indicate the annual percentage change that you expect in the following areas.

	More than 15% decrease	5% to 15% decrease	5% decrease to 5% increase	5% to 15% Increase	More than 15% Increase
Sales	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Market Share	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Profits (Net Margins)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total Assets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Total Debt	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2012 Survey of Strategic Management in Michigan Agribusinesses

26. What are the 3 MOST significant challenges that YOUR FIRM faces? (Check ONLY 1 item per column in order to rank the 3 most significant).

	MOST significant	2nd MOST significant	3rd MOST significant
Business Strategy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Competition	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Finance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Firm Succession	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Human Resources	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Marketing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Sales	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supply Chain Management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other significant challenges (please specify)

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 3b: ORGANIZATIONAL PERFORMANCE

27. On the scale provided, please indicate how satisfied you are with your organization's current ability to do each of the following business operations.

	1 - Very Dissatisfied	2	3	4	5	6	7 - Very Satisfied	N/A
Attract new, qualified employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep qualified employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Raise funds needed to support operations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintain property, plant and equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expand property, plant and equipment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Manage credit	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meet all environmental regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meet all food safety regulations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Keep current with technology changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other operations A (Please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other operations B (Please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other operations:

2012 Survey of Strategic Management in Michigan Agribusinesses

28. On the scale provided, please indicate how would you describe your organization's ability to perform the following MARKETING activities.

	1 - Very weak	2	3	4	5	6	7 - Very strong
Introduce new products and/or services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meet price challenges from competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meet quality challenges from competitors	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Maintain and satisfy current customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Attract new customers/expand customer base	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Serve multiple customer segments (including different sizes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Periodically review its product/service development processes to ensure they are in line with customers' desires	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Respond to customers' product/service needs (Considering customer complaints or using other forms of assessment)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiate lower prices from suppliers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote meetings with customers to find out what products/services they will need in the future	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In-house market research	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Survey customers at least once a year to assess the quality of its products/services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Generate intelligence on its competitors generated by several departments independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Periodic reviews of the likely effect of changes in its business environment (e.g. regulations) on customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Interdepartmental meetings at least once a quarter to discuss market trends and developments	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Meetings in every department with marketing personnel about customers' future needs	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internal circulation of documents (e.g. reports or newsletters) which provide information on its customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Dissemination of data on customer satisfaction at all its levels on a regular basis	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 3c: ORGANIZATIONAL PERFORMANCE

29. Based on your most realistic expectations for the next five years, how likely is your organization to engage in the following business actions? (Please check the number that best applies for each item).

	1 - Highly unlikely	2	3	4	5	6	7 - Highly likely
Expand territory served	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Service/utilize acres not currently used for agricultural production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase sales to traditional customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase sales to part-time farmers and other non-traditional customers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Expand product line	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop new value-added products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop new outlets for commodities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop international trade	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop products/services to help agricultural producers meet environmental concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop products/services to help agricultural producers meet food safety concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase operating efficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invest in major new fixed assets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Invest in renovation of fixed assets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase compensations for employees	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase size of labor force	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Start program to improve Product/Service quality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Downsize your operation to reflect changes in markets	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limit product offerings due to environmental concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Limit product offerings due to food safety concerns	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consolidate operating locations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Merge with another agribusiness	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cease operation due to selling out	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Change ownership due to retirement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Downsize labor force	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop a major cost cutting program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other business actions A (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other business actions B (please specify below)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other business actions:

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 4a: FIRM STRATEGY AND PLANNING

The following set of questions ask you to reflect on the nature of your organization's structure and its strategy-making and planning style.

For each item below, please indicate your response on the scale provided.

30. In general, the current management philosophy in my firm favors....

- ☐ 1 - highly structured channels of communication and a highly restricted access to important financial and operating information
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7 - Open channels of communication with important financial and operating information flowing quite freely throughout the organization

31. In general, the current management philosophy in my firm favors....

- ☐ 1 - A strong insistence on a uniform managerial style throughout the firm
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7 - Managers' operating styles allowed to range freely from the very formal to the very informal

32. In general, the current management philosophy in my firm favors...

- ☐ 1 - A strong emphasis on giving the most to say in decision-making to formal line managers
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7 - A strong tendency to let the expert in a given situation have the most to say in decision-making, even if this means temporary bypassing of formal line authority

2012 Survey of Strategic Management in Michigan Agribusinesses

33. In general, the current management philosophy in my firm favors....

☐ 1 - A strong emphasis on holding fast to tried and true management principles despite any changes in business conditions

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7 - A strong emphasis on adapting freely to changing circumstances without too much concern for past practice

34. In general, the current management philosophy in my firm favors....

☐ 1 - A strong emphasis on always getting personnel to follow the formally laid down procedures

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7 - A strong emphasis on getting things done even if this means disregarding formal procedures

35. In general, the current management philosophy in my firm favors....

☐ 1 - Tight formal control of most operation by means of sophisticated control and information systems

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7 - Loose, informal control; heavy dependence on informal relationships and norm of cooperation for getting work done

36. In general, the current management philosophy in my firm favors....

☐ 1 - A strong emphasis on getting line and staff personnel to adhere closely to formal job descriptions

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7 - A strong tendency to let the requirements of the situation and the individual's personality define proper on-job behavior

37. In general, the top managers of my firm favor...

☐ 1 - A strong emphasis on the marketing of tried and true products and services

☐ 2

☐ 3

☐ 4

☐ 5

☐ 6

☐ 7 - A strong emphasis on R&D, technological leadership and innovations

2012 Survey of Strategic Management in Michigan Agribusinesses

38. How many new lines of products or services has your firm marketed in the last five years?

- ☐ 1 - No new lines of products or services
 ☐ 2
 ☐ 3
 ☐ 4
 ☐ 5
 ☐ 6
 ☐ 7 - Very many new lines of products or services

39. How much change has there been in the lines of products or services your firm marketed in the last five years?

- ☐ 1 - Changes in product or service lines have been mostly of a minor nature
 ☐ 2
 ☐ 3
 ☐ 4
 ☐ 5
 ☐ 6
 ☐ 7 - Changes in product or service lines have usually been quite dramatic

40. In dealing with its competitors, my firm...

- ☐ 1 - Typically responds to actions which competitors initiate
 ☐ 2
 ☐ 3
 ☐ 4
 ☐ 5
 ☐ 6
 ☐ 7 - Typically initiates actions which competitors respond to

41. In dealing with its competitors, my firm...

- ☐ 1 - Is very seldom the first business to introduce new products/services, administrative techniques, operating technologies, etc.
 ☐ 2
 ☐ 3
 ☐ 4
 ☐ 5
 ☐ 6
 ☐ 7 - Is very often the first business to introduce new products/services, administrative techniques, operating technologies, etc.

42. In dealing with its competitors, my firm...

- ☐ 1 - Typically seeks to avoid competitive clashes, preferring a "live-and-let-live" posture
 ☐ 2
 ☐ 3
 ☐ 4
 ☐ 5
 ☐ 6
 ☐ 7 - Typically adopts a very competitive, "undo-the-competitors" posture

2012 Survey of Strategic Management in Michigan Agribusinesses

43. In general, the top managers of your firm have...

- ☐ 1 - A strong proclivity for low-risk projects (with normal and certain rates of return) ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 - A strong proclivity for high-risk projects (with chances of very high returns)

44. In general, the top managers of your firm believe that...

- ☐ 1 - Owing to the nature of the environment, it is better to explore it gradually via timid, incremental behavior ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 - Owing to the nature of the environment, bold, wide-ranging acts are necessary to achieve the firm's objectives

45. When confronted with decision-making situations involving uncertainty, your firm...

- ☐ 1 - Typically adopts a cautious, "wait-and-see" posture in order to minimize the probability of making costly decisions ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 - Typically adopts a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 4b: FIRM STRATEGY AND PLANNING

A number of planning activities are listed below. We would like to know which ones are used in your organization. The column headings have the following meanings:

YES, FORMALLY means that you regularly engage in the activity and you produce a formal document to guide management action.

YES, INFORMALLY means that you regularly engage in the activity but rather than produce a formal, written document you keep the ideas either in your mind or in some informal written form.

NO means that you do not regularly engage in the activity either formally or informally.

46. In your organization, which of the following planning activities does your organization use? (Please check the appropriate column for each item)

	YES, FORMALLY	YES, INFORMALLY	NO
A mission statement or a statement of specific business objectives?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A 3 to 5 year general business plan to guide operations including a facilities plan, personnel plan and/or a financial plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An annual operating and/or capital budget including sales and/or cash flow projections?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A review of its internal strengths and weaknesses?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A review of opportunities and threats from outside the firm?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An analysis of competitors' strengths and weaknesses?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An analysis of business conditions including trade area information, legal and regulatory changes, and/or industry trends?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An annual analysis of firm performance by department, product line, and/or employee performance?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A food safety and/or sustainability management plan (i.e. Hazard Analysis & Critical Control Points (HACCP), Corporate Social Responsibility (CSR), Good Agricultural Practices (GAP) or Good Handling Practices (GHP), etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An environmental management plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A management succession plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A personnel management plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are non-management personnel included in the planning process?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other planning activities in use (please specify):

2012 Survey of Strategic Management in Michigan Agribusinesses

We also want to know if you want to change your current use of the various planning activities presented in the previous question. The column headings for the question below have the following meanings:

NO CHANGE means you are satisfied with your organization's use of a particular activity (even if not currently using it).

BEGIN USE means you are not using a particular activity but want to begin using it.

IMPROVE CURRENT USE means you are currently using a particular activity but want improvement in your use.

DISCONTINUE USE means you are currently using a particular activity but do not want to use it in the future.

47. In the future, what change(s) would you like to make in your organization's use of the following planning activities? (Please check the appropriate column for each item)

	NO CHANGE	BEGIN USE	IMPROVE CURRENT USE	DISCONTINUE USE
A mission statement or a statement of specific business objectives?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A 3 to 5 year general business plan to guide operations including a facilities plan, personnel plan and/or a financial plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An annual operating and/or capital budget including sales and/or cash flow projections?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A review of its internal strengths and weaknesses?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A review of opportunities and threats from outside the firm?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An analysis of competitors' strengths and weaknesses?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An analysis of business conditions including trade area information, legal and regulatory changes, and/or industry trends?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An annual analysis of firm performance by department, product line, and/or employee performance?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A food safety and/or sustainability management plan (i.e. Hazard Analysis & Critical Control Points (HACCP), Corporate Social Responsibility (CSR), Good Agricultural Practices (GAP) or Good Handling Practices (GHP), etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
An environmental management plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A management succession plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A personnel management plan?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Are non-management personnel included in the planning process?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other planning activities you would like to use (please specify):

2012 Survey of Strategic Management in Michigan Agribusinesses

Part 5: COMPANY INFORMATION

The following set of questions ask you to provide some demographic information about your organization. This information will help us better understand the differences among the businesses that we are surveying. As with all other responses, your responses will be kept private and confidential.

48. Please estimate the total number of employees in your organization.

- ☐ 1 to 10
☐ 11 to 50
☐ 51 to 100
☐ 101 to 250
☐ 251 to 500
☐ More than 500

49. Please estimate your organization's sales (in million \$) for the following years.

	0-5	5-10	10-15	15-25	25-50	50-100	100-200	200-500	500-1000	> 1000	Don't know/Null response
2009	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2011	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

50. Within your primary market territory, please estimate the market share of your core product or service for the following years. (Please check the appropriate column for each item)

	0%	1% to 10%	11% to 30%	31% to 50%	over 50%	Don't know
2009	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2011	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

51. Please estimate your organization's total assets (in million \$) for the following years.

	0-5	5-15	15-100	100-500	>500	Don't know/Null response
2009	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2011	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2012 Survey of Strategic Management in Michigan Agribusinesses

52. Please estimate your organization's debt-to-asset ratio for the following years.

	0% to 20%	20% to 40%	40% to 60%	Above 60%	Don't know/Null response
2009	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2010	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2011	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

53. Please estimate your organization's average annual pretax profit for the last three years. (NOTE: Owner corporations should include owner compensation and withdrawals as part of profit).

- ☐ More than 5% of sales
- ☐ From 2% to 5% of sales
- ☐ From 0.5% to 2% of sales
- ☐ Breakeven (from -0.5% to 0.5% of sales)
- ☐ Loss (Less than -0.5% of sales)

54. Considering your answers to all the questions in the survey, how optimistic or pessimistic are you about your organization's ability to perform well over the next five years?

(Please check the one item which best applies.)

- ☐ Very optimistic
- ☐ Optimistic
- ☐ Unsure
- ☐ Pessimistic
- ☐ Very pessimistic

55. If you would like to share any additional comments, please write them in the box below.

Thank you very much for your time and cooperation. We will be presenting the results of this survey at the 2012 Michigan Agribusiness Association Outlook Conference on September 14-16 at the Grand Hotel – Mackinac Island.

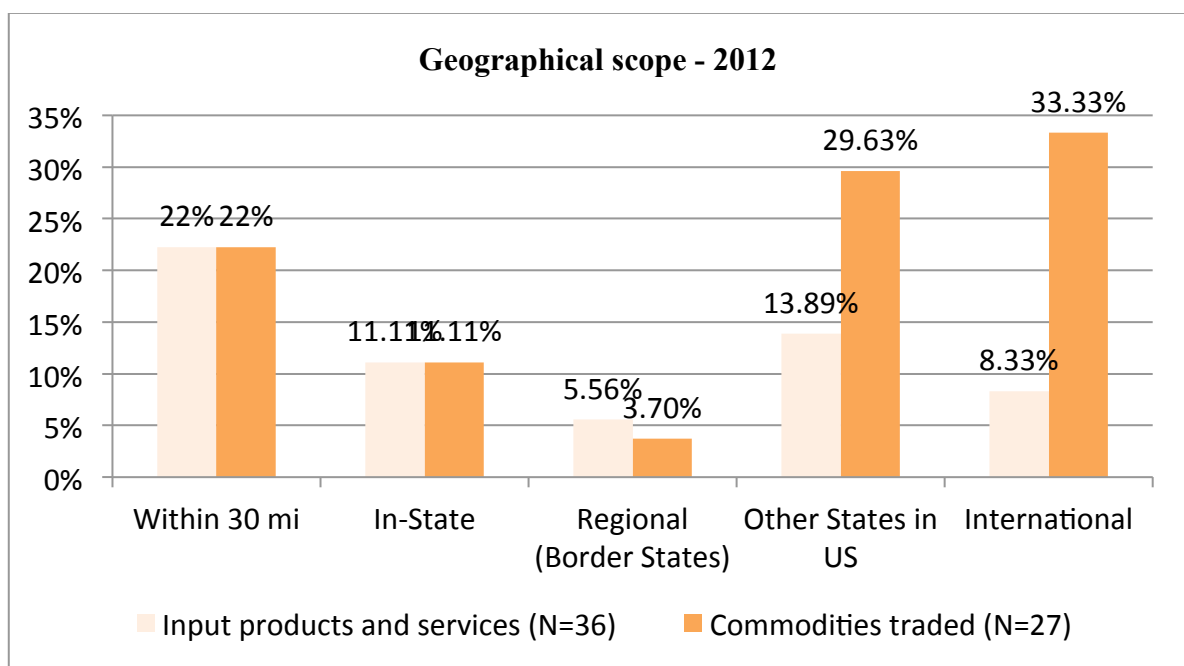
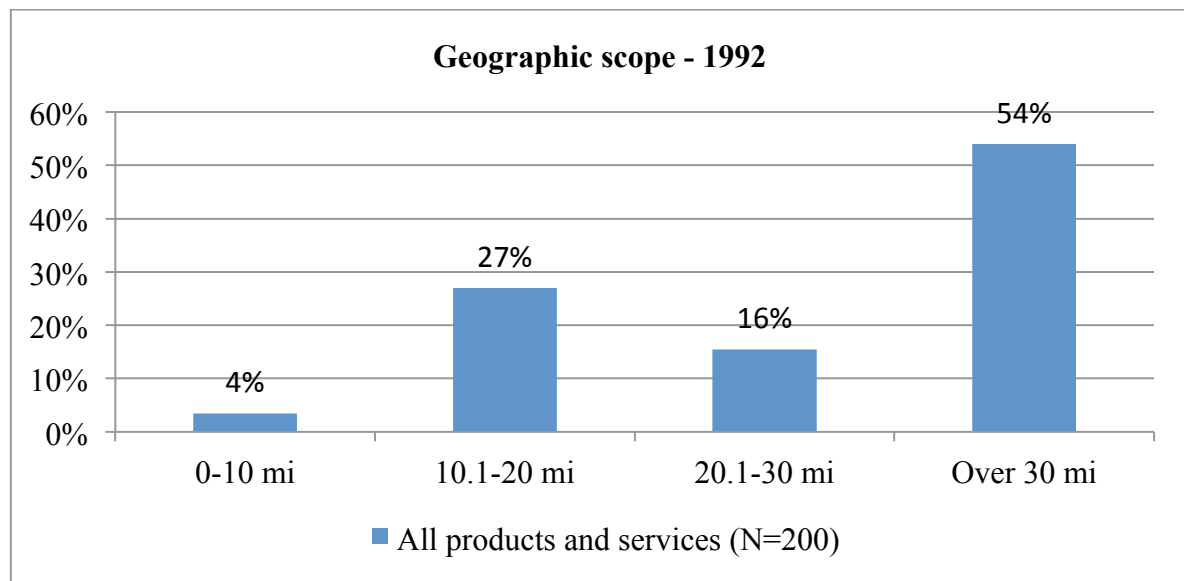
NOTE: Once you click DONE you will not be able to return to change/review your responses. If you wish to change/review your responses, please click PREV. When you have completed the survey, you can return to this page and submit your responses by clicking DONE.

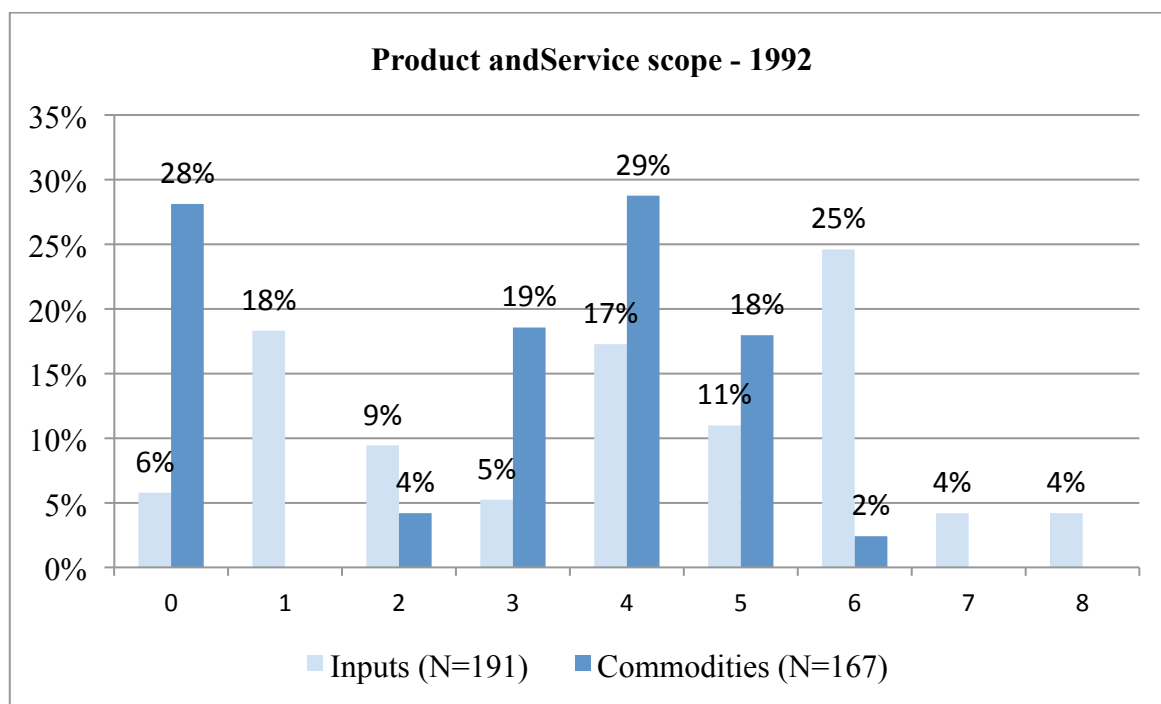
APPENDIX C – Comparison in Agriculture characteristics 1992 and 2011.

Characteristic	1992	2011
Ag Land, Inc buildings - asset value US \$/ac	\$713.00	\$3,100.00
Ag Land, Inc buildings - asset value MI \$/ac	\$1,106.00	\$3,850.00
Ag services expenses US (\$)	\$18,300,000.00	\$37,100,000.00
Ag services expenses MI (\$)	N/A	N/A
Total animal expenses US (\$)	14,200,000.00	28,600,000.00
Total animal expenses MI (\$)	N/A	N/A
Total Corn area planted US (ac)	79,311,000	91,921,000
Total Corn area planted MI (ac)	2,700,000	2,500,000
Total feed expense US (\$)	\$20,100,000.00	\$54,600,000,000.00
Total feed expense MI (\$)	N/A	N/A
Total fertilizer expense US (\$)	\$8,300,000.00	\$25,100,000,000.00
Total fertilizer expense MI (\$)	N/A	N/A
Labor, hired and contract, incl non-cash benefits US (\$)	\$13,700,000.00	\$26,800,000,000.00
Labor, hired and contract, incl non-cash benefits MI (\$)	N/A	N/A
Labor, hired work rate US (\$/h)	\$6.06	11.07
Labor, hired work rate MI (\$/h)	\$6.21	N/A
Machinery, other - expense US (\$)	\$4,000,000,000.00	\$6,400,000,000.00
Machinery, other - expense MI (\$)	N/A	N/A
Total Milk produced US (lb)	150,847,000,000	196,245,000,000
Total Milk produced MI (lb)	N/A	8,478,000,000
Total Soybean area planted US (ac)	59,180,000	75,046,000
Total Soybean area planted MI (ac)	1,450,000	1,950,000

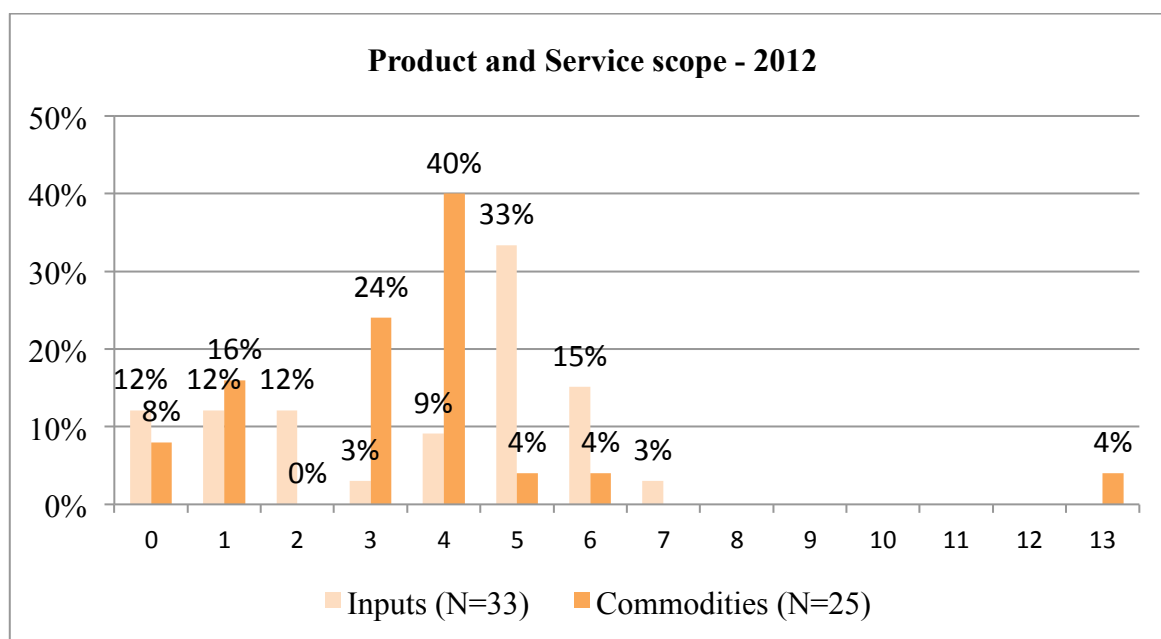
Source: National Agriculture Statistics Service

Appendix D – distribution of product and geographical scope in the industry





NOTE: on the xx axis is registered the number of different products and services the firm provide.



NOTE: on the xx axis is registered the number of different products and services the firm provide.

References

- Adams, R. M., C. Rosenzweig, M. Peart, J. T. Ritchie, B. A. McCarl, J. D. Glyer, R. B. Curry, J. W. Jones, K. J. Boote, and L. H. Allen, Jr. 1990. Global climate change and US agriculture. *Nature*, vol. 345: 229-224.
- Andersen, T. J. 2000. Strategic Planning, Autonomous Actions and Corporate Performance. *Long Range Planning*, vol. 33(2): 184-200.
- Baker, G. A., and J. K. Leidecker. 2001. Does it pay to plan?: Strategic Planning and Financial Performance. *Agribusiness*, vol. 17 (3): 355-364.
- Boehlje, M. 1999. Structural Changes in the Agricultural Industries: How do we Measure, Analyze and Understand Them?. *American journal of Agricultural Economics*, vol. 81 (5): 1028-1041.
- Boehlje, M., M. Roucan-Kane, S. Bröring. 2011. Future Agribusiness Challenges: Strategic Uncertainty, Innovation and Structural Change. *International Food and Agribusiness Management Review*, vol. 14 (5): 53-82.
- Boyd, B. K. 1991. Strategic Planning and Financial Performance: a Meta-analytical Review. *Journal of Management Studies*, vol. 28 (4): 353-374.
- US Bureau of Labor Statistics. Retrieved November 20, 2012 from www.bls.gov
- Capon, N., J. U. Farley, J. M. Hulbert. 1994. Strategic Planning and Financial Performance: More Evidence. *Journal of Management Studies*, vol. 31 (1): 105-110.
- Datamonitor. 2011. *Industry Profile: Farm Machinery in the United States*. Reference code: 0072-0624. Retrieved June 11, 2012 from www.datamonitor.com
- Datamonitor. 2011. *Industry Profile: Organic Food in the United States*. Reference code: 0072-0853. Retrieved August 10, 2012 from www.datamonitor.com
- Datamonitor. 2011. *Industry Profile: Agricultural Production in the United States*. Reference code: 0072-2000. Retrieved June 11, 2012 from www.datamonitor.com
- D'Aveni, R. A., and D. J. Ravenscraft. 1994. Economies of Integration versus Bureaucracy: Does Vertical integration improve Performance? *The Academy of Management Journal*, vol. 37 (5): 1167-1206.
- Duerksen, G. J. 2012. Winning the War for Talent. *International Food and Agribusiness Management Review*, vol. 15 (Special Issue A): 13-17.
- Eden, C. and F. Ackerman. 1998. *Making Strategy: The journey of strategic management*. Thousand Oaks, CA: Sage Publications Ltd.
- Economic Research Service. 2007. The changing economics of U.S. hog production. Retrieved November 14, 2012 from www.ers.usda.gov.
- FAO. FAO food price index. Retrieved August 9, 2012 from www.fao.org
- Freedonia. 2010. *Agricultural Equipment: United States*. Freedonia Focus Reports. Retrieved June 11, 2012 from www.freedoniafocus.com

- Freedonia. 2011. *Grain-Based Foods: United States*. Freedonia Focus Reports. Retrieved June 11, 2012 from www.freedoniafocus.com
- Freedonia. 2011. *Refined Petroleum Products: United States*. Freedonia Focus Reports. Retrieved June 11, 2012 from www.freedoniafocus.com
- Freedonia. 2012. *Seeds: United States*. Freedonia Focus Reports. Retrieved June 11, 2012 from www.freedoniafocus.com
- Grant, R. M. 1998. *Contemporary Strategy Analysis: Concepts, Techniques and Applications*. Malden, MA: Blackwell Publishers, Inc.
- Griffith, D. A., and M. B. Myers. 2005. The performance implications of strategic fit of relational norm governance in global supply chain relationships. *Journal of International Business Studies*, vol. 36: 254-269.
- Hill, T., and R. Westbrook. 1997. SWOT Analysis: It's Time for a Product Recall. *Long Range Planning*, vol. 30 (1): 46-52.
- IBISWorld. 2011. *Crop Services in the US*. IBISWorld Industry Report 11511. Retrieved June 11, 2012 from www.ibisworld.com
- IBISWorld. 2011. *Farm Product Storage and Warehousing in the US*. IBISWorld Industry Report 49313. Retrieved June 11, 2012 from www.ibisworld.com
- IBISWorld. 2011. Healthy eating index. *IBISWorld Business Environment Report*. Retrieved June 11, 2012 from www.ibisworld.com
- IBISWorld. 2012. Agricultural price index. *IBISWorld Business Environment Report*. Retrieved June 11, 2012 from www.ibisworld.com
- IBISWorld. 2012. *Fertilizer Manufacturing in the US*. IBISWorld Industry Report 32531. Retrieved August 6, 2012 from www.ibisworld.com
- IBISWorld. 2012. *Pesticide Manufacturing in the US*. IBISWorld Industry Report 32532. Retrieved August 6, 2012 from www.ibisworld.com
- IBISWorld. 2012. *Tractors and Agricultural Machinery Manufacturing in the US*. IBISWorld Industry Report 33311. Retrieved June 6, 2012 from www.ibisworld.com
- Index Mundi. Index Mundi Comodity Price Index. Retrieved November 20, 2012 from www.indexmundi.com
- Kurukulasuriya, P., and S. Rosenthal. 2003. Climate Change and Agriculture. Agriculture and Rural Development Department, The World Bank, Climate change series, paper no. 91.
- Mintzberg, H., B. Ahlstrand, and J. Lampel. 1998. *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management*. New York, NY: FREE PRESS.
- Mintzberg, H. B. 2009. *Managing*. San Francisco, CA: Berret-Koehler Publishers, Inc.
- Morgan N. A., D. W. Vorhies, and C. H. Mason. 2009. Marketing orientation, marketing capabilities and firm performance. *Strategic Management Journal*, vol. 30: 909-920.

- Mueller, M., V. Gomes dos Santos, S. Seuring. 2009. The Contribution of Environmental and Social Standards Towards Ensuring Legitimacy in Supply Chain Governance. *Journal of Business Ethics*, vol. 89: 509-523.
- Peterson, C. H., and M. Silas. 1995. The impact of Planning Activities on the Performance and Expectations of Michigan Input Supply and Grain Handling Firms. Department of Agricultural Economics working paper, Michigan State University.
- Peterson, H. C., A. Wysocki, and S. B. Harsh. 2001. Strategic choice along the vertical coordination continuum. *International Food and Agribusiness Management Review*, vol. 4: 149-166.
- Porter, M. E. 1979. How Competitive Forces Shape Strategy. *Harvard Business Review*, March-April 1979.
- Porter, M. E. 1980. *Competitive Strategy*. New York, NY: THE FREE PRESS.
- Porter, M. E. 1985. *Competitive Advantage*. New York, NY: THE FREE PRESS.
- Porter, M. E. 1996. What is Strategy? *Harvard Business Review*, November-December 1996.
- Rhyne, L. C. 1987. Contrasting planning systems in High, Medium and Low Performance Companies. *Journal of Management Studies*, vol. 24(4): 363-385.
- Thune, S. S., and R. J. House. 1970. Where Long-range Planning Pays off. *Business Horizons*, vol. 13(4): 81-87.
- USDA, Economic Research service. Retrieved November 20, 2012 from www.ers.usda.gov
- Williamson, O. E. 1979. Transaction-Cost Economics: The Governance of Contractual Relations. *Journal of Law and Economics*, vol. 22 (2): 233-261.
- World Bank. Retrieved November 20, 2012 from www.data.worldbank.org