



Sveriges lantbruksuniversitet  
Swedish University of Agricultural Sciences

Department of Economics

# Management strategies for profitability and growth

- A case study of Swedish farms

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# Summary

The Swedish agricultural sector is facing challenges in order to achieve long-term profitability. The sector is also undergoing a structural change where the farm unit becomes larger. Larger farm units tend to need a higher level of strategic management. A way for them to increase the long term sustainability, viability and competitiveness is to work with efficiency in the farm operation. In order to increase efficiency and growth one has to understand the stimulating factors creating growth which could be described as internal or external opportunities. The understanding of growth and efficiency is strategic management which with increasing farm size and increased external capital becomes more essential than just something helpful.

A useful strategic management tool is the Balanced Scorecard (BSC) since it combines non-economic and economical areas of the farm. The BSC has been used in firms around the world and has proved useful and applicable at farm level. In this thesis, the BSC framework works as an evaluation tool for strategic management practice at farm level in the past. To determine why farms grow the thesis also look into the theory of growth by Penrose. In order to investigate if the case farm has been growing and maintained profitable, financial data have been compared to average SCB farms.

The aim of this study was to identify if there were any strategic key success factors for growing Swedish farms. The study is based on qualitative interviews and flexible research designs. Quantitative data of financial development of the farms are provided to support the growth and profit over the investigated period. This study is based on eight individual growing case farms and by combining their strategies finding common parables. The parables have been analyzed with previous reports and studies in the subjects.

The results in the paper show that the case farm has maintained profitability in their growth in comparison with the reference farms. The study shows that cases farms works in a strategic management process in which strategies and objectives are set. The case farms apply goals and targets within financial, internal, customer, and learning and growth perspectives of each farms. The reason for the growth is attributable to the either the economic benefits of a large-scale or individual or social incentives.

# Sammanfattning

Den svenska jordbrukssektorn står inför utmaningar för att uppnå långsiktig lönsamhet. Ett sätt att öka lönsamheten och konkurrenskraften på lång sikt är att arbeta med effektivitet. För att öka effektivitet och tillväxt måste lantbrukaren förstå stimulerande faktorer som skapar tillväxt som skulle kunna beskrivas som interna eller externa processer. Förståelsen för tillväxt och effektivitet är strategic management som med ökande gårdsstorlek och ökat externt kapital blir mer nödvändigt än bara något användbart.

Ett användbart strategic management verktyg är det balanserade styrkortet (BSC). BSC har använts i företag runt om i världen och har visat sig användbart även på gårdsnivå. I denna uppsats används det balanserade styrkortets ramverk som ett utvärderingsverktyg för tidigare strategisk ledning på gårdsnivå. För att undersöka varför gårdar växer kommer uppsatsen använda Penroses theory of growth och för att också stärka argumentationen om att gårdarna har vuxit och bibehållit lönsamhet kommer fakta från SCB att användas som referens.

Syftet med denna studie var att fastställa om det förekom några strategiskt viktiga framgångsfaktorer för expanderande lantbruksföretag i Sverige. Studien baseras på kvalitativa intervjuer och observationer. Kvantitativa data för den ekonomiska utvecklingen på gårdarna finns för att mäta deras tillväxt och lönsamhet för den undersökta tidsperioden. Denna studie har gjorts på åtta olika expanderande fallgårdar och genom att kombinera deras olika strategier hitta gemensamma likheter. Alla fallgårdar har analyserats individuellt från ett balanserat styrkort perspektiv. De likheter som framkommit har sedan analyserats med tidigare studier i ämnet. För att stärka antagandet att fallgårdarna har vuxit och bibehållit lönsamheten har deras finansiella data jämförts med en genomsnittsgård från SCB.

Resultaten i uppsatsen visar att fallgårdarna har bibehållit lönsamheten under deras tillväxt i jämförelse med referensgården. Studien visar att fallgårdar arbetar i en strategisk ledning process där strategier och mål sätts. Fallgårdarna arbetar med mål för finansiella, interna, kund och lärande- och tillväxtperspektiv i deras verksamhet. Anledningen till att företagen växer härrörs från antingen de ekonomiska fördelarna med en storskalig produktion eller de enskilda eller sociala incitamenten.

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# 1 Introduction

The trade of crops has increased during the past ten years (SJV, 2012:33). This is due to the increased population worldwide and a change in consumer interest and consumption. The consumption of food per capita is increasing mainly in Asia, Latin-America and Eastern Europe. The demand is strongest for meat, dairy products, vegetable oils and sugar. According to USDA there is a yearly estimated increase of demand for meat products of 2 % over a ten year period (OECD, 2011). Since the customers in these countries are sensitive to high prices, the increased demand for meat is most beneficial for low cost production countries. Crop prices and commodities have during the past ten years become significantly more volatile and provided the sector with less stability but also offered a greater earning potential (*ibid*). The trade of agricultural products has been more internationalized and more developed in terms of contracting and the use of financial instrument. Market orientation and awareness of market strategies have become more important for the individual farmer in order to succeed (Lund & Noell, 2002).

## 1.1 Problem background

In a sector recognized by low margins, the focus on capital efficiency and profitability is of great importance (Agrawal, 2014). The agricultural production is known to be capital demanding in order to finance machinery, buildings and commodities. The cost of buying, owning or renting tillable land is also a substantial cost in which the farmer often finds difficulties. The level of tillable land is limited and gaining further access is not often easy, but it has been recognized over the years that the best tactic to remain sustainable has been to expand and grow the firm (LRF Konsult, 2010). The topic of growth is a central interest within entrepreneurship research. Despite the large interest and research the development in the topic has been slow (Davidsson & Wiklund, 2000; Delmar, Davidsson, & Gartner, 2003; Shepherd & Wiklund, 2009). In order to stay competitive, new investments need to be accomplished. Penrose (1959) concludes that the greater the growth rate is, the higher the growth cost becomes. The dilemma is to maintain a good profitability while undergoing a larger investment and growth. Over the past ten years the Swedish farmers have doubled their loans to invest in their farms (Lantbruksbarometern 2014).

Futhermore, the Swedish agricultural sector is facing challenges in order to achieve long-term profitability (Ekman & Gullstrand, 2006). The Swedish production of grain has been fairly stable over a long period of time (SJV, 2014:08). Although there has been a decrease of tillable land it has been compensated by increased yields. The increase of yields has however stagnated in later years. The Swedish agricultural sector is also undergoing a structural change towards larger units (Berglund *et al*, 2011). Since farms become larger and involve more employees and partners, the need for management increases. According to Kemp *et al*, (2004)

the management at farm level has always been critical. In order to stay competitive in the long run, a sustainable farm unit requires well-structured management within the biological, social and financial resources. Increased management skills may enhance the opportunity of improved profitability and efficiency at agricultural farms (Rougoor *et al*, 1998; Jose & Crumly, 1993). In the farm efficiency literature, the farm level productivity varies between farms (Hansson & Öhlmer, 2008; Oude Lansink *et al*, 2002; Heshmati & Kumbhakar, 1994; Tauer, 1993). This notion indicates that farm level performance and profitability could be improved. Improved farm efficiency is obtained by reducing costs and increasing revenues (Hansson, 2007).

Firms with a continuous effort towards efficiency improvements will increase their competitiveness and become viable and sustainable in the long run (Lund & Noell, 2002). In the last decade the number of Swedish farms has been decreasing with 23% even though the production has remained more or less the same (SJV, 2014:26). This has been caused by technical innovations and increased efficiency where larger machinery has made it easier to lower the production cost.

## 1.2 Problem

The structural change in Swedish agriculture limits the individual farmer to maintain a good overview of all business activities and maintain a successful management (Berglund *et al*, 2011). In order to maintain motivated and committed staff in the farm operation the use of delegation can be beneficial for the productivity and performance (Berglund, 2010; Appelbaum *et al*, 2000). Commitment refers to an increased involvement in the daily operations, a willingness to improve results and work together towards a common goal. In order to formulate and achieve goals, a clear strategy needs to be defined (Landström & Löwegren, 2009). Harling (1992) argues that farmers who operate in strategic management terms outperform their less profitable colleagues and strategic management is a key towards creating a competitive strategy.

The Balanced Scorecard (BSC) is a strategic management tool that has been widely used in firms all over the world. The purpose of the BSC is to clarify and operationalize a strategy originated from the vision of the firm (Kaplan & Norton, 2001). The strategy is based on four perspectives where each goal is determined and measured. In each perspective there are targets and initiatives that are required in order to reach the goal. The BSC has been applied in small and medium size enterprises (SME) in global research. Within the field of agriculture several studies also show its applicability and impact (Lund & Noell, 2002; Shadbolt, 2003; Shadbolt 2008).

The problem background of this thesis demonstrates i) the profitability and efficiency in Swedish agricultural firms need improvement, ii) the agricultural sector is subject to a structural change towards fewer and larger units iii) the management of agricultural farms

becomes significantly more important and influences farm performance results (Rougoor *et al*, 1998).

These implications demonstrate the need for successful management in order to stay competitive. Management might be an unfamiliar business activity which needs implementation and improvement at farm level. Earlier research provides a solid ground for literature review in the areas of farm management, leadership and BSC implementation. Mäkinen *et al*, (2009) state that success factors can not be measured only by objective results, it requires a subjective analysis to understand the full complexity of successful farming businesses. Because of this problem, a strategic management framework will be used in this thesis as an evaluation instrument in order to determine how a sample of farmers work with strategy, goals and initiatives towards maintaining a profitable and growing farming business. The approach relies on an objective and subjective empirical research with managerial observations and financial data. This study could therefore hopefully contribute to further understanding of the characteristics of a profitable and sustainable farm and its management practice and raise further research questions.

### 1.3 Aim

*The aim of the study is through a balanced scorecard approach, identify how eight case farms formulate strategies, goals and initiatives towards expanding their businesses and profit.*

Through the study earlier research within the field will be discussed in order to broaden the understanding. The managerial capacities and visions of the farmers will be investigated in order to obtain a further understanding of the financial result with a balanced scorecard. This study will measure growth and profits based on farm record data in combination with qualitative interviews over a period of years and analyze the findings with theory and literature. The qualitative findings will be analyzed with strategic management as the theoretical framework. The unit of analysis in this thesis is the farmers and the similarities of key factors among the case farms. The result may differ among the case farms but the identified similarities between them contribute to answer the research questions, other findings will become issue for discussion.

The research questions of this thesis are formulated as;

1. What are the similarities between the case farms from a balanced scorecard perspective?
2. Why do the case farm grow?
3. Have the investigated case farm maintained profitable during their growth?

### 1.4 Delimitations

This thesis is limited as a case study in agricultural economics and management. Since the study is conducted as a case study, the results may not be representative for the entire

agricultural sector of Sweden. The empirical study is conducted at case farms in a local area of Swedish plain. Each interview is related to the manager's view of the farm performance and the study will consist of eight interviews in total. The qualitative findings will be analyzed and discussed based upon strategic management and growth theory. This thesis does not consider leadership theories such as LEAN nor alternative strategic management theories such as resource based view (RBV) or behavioral theory of the firm (BTOF). The financial data is objectively evaluated and supplement to the qualitative findings. The financial evaluation primarily relies on a few key ratios and is not further investigated. The theoretical framework is chosen to cover and explain the full problem area. Earlier research with similar theoretical approach will be additionally discussed in the study. Since several of the investigated farms involve different enterprises, the aim is to evaluate their managerial strategies and practices in general, without specific connection towards their different products.

## 1.5 Outline

The outline of this study is illustrated in figure 1. In chapter one the problem background, problem, aim and the delimitations of the study are presented. Chapter two consists of a literature review of relevant research within the field of growth theory, strategic management and balanced scorecard, with applications towards farm enterprises. The theoretical framework and theory of this study are described and introduced in chapter three. Chapter four presents the method, which describes the research design, case study, use of theoretical framework and analysis of the data. In chapter five the data from the case study is presented. The analysis and discussion of the study are presented in chapter six. Finally, chapter seven presents the conclusion drawn from this study and suggests further research areas within the topic.

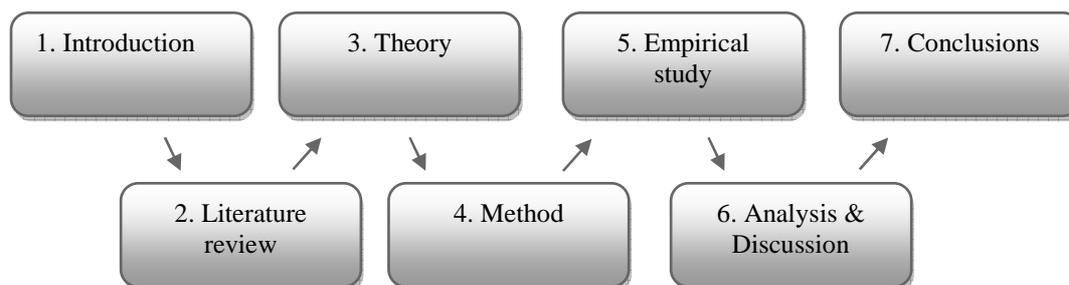


Figure 1. Illustration of the outline of the study (own modification)

## 2. Literature review

This chapter aims to give a broad understanding of the research topic and previous studies. In 2.1 Strategic management research is introduced, in 2.2 Balanced Scorecard research are discussed and in 2.3 the Financial stress is defined.

*Table 1. A summary of the most relevant literature for this study*

Reference	Problem or Objective	Theory and literature	Method	Results
<b>Bigliardi &amp; Bottani, 2010</b>	Develop a BSC model for performance measurement in food supply chain.	Supply chain management, BSC.	Literature analysis, Delphi technique and case study-based research	Companies have a similar view for three of the four perspectives of the BSC. Learning and growth perspective less favorable.
<b>Mäkinen <i>et al</i>, 2009</b>	Find indicators for evaluating success and describe the success of Finnish family farms by using subjective and objective measurements	Measurement systems, entrepreneurship, social and economic environment	Survey and data collection with descriptive statistics, factor analysis, and correlation analysis	Farmers perceive success on a reasonable level in although relatively poor economic results. In order to evaluate success both objective and subjective measurement is required.
<b>Papalexandris <i>et al</i>, 2005</b>	Develop a holistic and methodological approach for BSC synthesis and implementation	BSC	Results-oriented methodology	BSC implementation and its effectiveness is highly dependent on the process that is used.
<b>Shadbolt <i>et al</i>, 2003</b>	determine the use and applicability of the BSC to multi-enterprise family farms and to evaluate it as a management tool.	Strategic management, BSC,	Implementation at 3 case farms. Comparison results towards earlier business plans.	Participant farms believed the customer perspective hard to use. Social and family goals not applicable into the model.
<b>Fernandes <i>et al</i>, 2006</b>	“Can BSC be implemented in manufacturing SMEs, as a ‘holistic’ method, with limited top management resources?”	BSC	Structured eight-step method of implementation at SME firm.	Show the applicability of BSC in SME firms.
<b>Lund &amp; Noell, 2002</b>	“BSC for Danish farms, is it a vague or functional instrument?”	BSC	A hypothetical application at Danish dairy farm	A large need for a more customer orientation in the strategic planning to meet external demands. Less static BSC

				framework and enhance a more dynamic strategic management practice.
<b>Rompho, 2011</b>	Aim to assert the cause of the failure of the Balanced Scorecard	BSC, SME,	Case study of one firm with BSC implementation failure	SME strategy changes harms the BSC work.
<b>Shadbolt, 2008</b>	The role of strategy tools for farm management	BSC, Porter's Five Forces, Value- creation and strategy	Literature review	BSC is a useful framework since it enhances the perspectives of human resources (innovation, continuous improvement and learning).
<b>Rougoor <i>et al</i>, 1997</b>	The aim of the article is to give an overview of the main aspects of management capacity, discuss the problems and weak spots in order to locate suggestions for improvement.	Farm management, management capacity and decision making.	Interviews, questionnaires, data collection and analysis.	Empirical studies show an influence of management on the farm financial results.
<b>Harling &amp; Quail, 1990</b>	Aim to investigate the applicability of management tools in farm business	General management, farm management, strategy	Questionnaire and survey involved 50 US farmers.	Results showed applicability, similar to the industry sector.
<b>Gumbus &amp; Lussier, 2006</b>	Aim at illustrate how entrepreneurs work with BSC in order to improve performance	BSC, SME,	Case study of 3 SME industries in the US.	BSC found efficient in smaller companies as well. BSC is exclusive in all firms and needs continuous update in order to improve performance.

## 2.1 Strategic management research

Successful farmers are more likely to operate in strategic management terms than their less profitable equivalents (Harling, 1992). Strategic management is a process where long term goals and important factors of the farm performance are evaluated. Strategic management is a cornerstone towards creating a competitive strategy. Strategy defines what the farm should achieve and the approach towards it (Harling & Quail, 1990).

When investigating business environment, three important factors should be examined; external, operational and internal (Lee *et al*, 1999). Each of these three factors can either be driving forces for the strategy as well as constraints. The external environment focuses on the macro-forces and its impact on the business climate. At this level the farmer has no influence or control. The operational level refers to the market situation, where a successful farmer

might have some control. The internal level is referred to resource utilization where the farmer has full control and is more dependent on active management.

Financial performance can differ between farms although they have a similar way of operating and face the same conditions (Rougoor *et al*, 1997). Farm performance is heavily influenced by the management and poor managerial efforts can lead to financial damage. Farm management is defined as the decisions made which affect the profitability of the farm business (Castle *et al*, 1987). Farm management involves several factors which farmers discuss in their every day work. The personal ambitions and motivation play a central role in order to operate and develop the farm. The farmers' abilities and capabilities such as education and skills to run the farm are often challenged. The aspects of decision making also influence management of the farm both in the short and long term (Rougoor *et al*, 1997). Kay and Edwards (1994) found and discussed three critical elements in farm management; (1) The need for established goals, (2) the available resources which are used to reach the goal, (3) the possibility of using the resources differently, depending on efficiency factors, in order to produce agricultural products.

A considerable amount of the literature on farm management is concentrated on calculating the optimal outcome of given inputs and restrictions. An important factor which has been partly overlooked is the decision making process of the farm manager (Rougoor *et al*, 1997). Management capacity is defined as a characteristic that features the appropriate skills to deal with the problems and opportunities in the right way and at the right time. Using existing knowledge the manager attempts to maximize the economic result at farm level. Since the farmers' work is heavily impacted by the environmental conditions, the decision making process is difficult to predict.

In order to evaluate risk and uncertainty the environmental factors can be divided into four dimensions (Boehlje & Eidman, 1984). Firstly, the institutional environment should be examined in order to obtain full understanding of regulations on water, land and air pollution. Secondly, the social environment such as the farmer's family should be understood. Thirdly, the physical environment should be examined such as weather conditions, the available technology etc. Finally, the economic environment should be completely understood in terms of prices of commodities and production factors.

Additionally, the personal capacity of managerial practice is essential to investigate (*ibid*). These can be separated into; (1) drives and motivations, which refers to the farmers' goals, ambitions and risk aversion; (2) abilities and capabilities, for example the level of knowledge and practical skills of handling the work; (3) biography, explaining the farmers' personal background and experiences in the past.

## 2.2 Balanced Scorecard research

Balanced Scorecard provides the firm with a mixture of financial and non-financial measures (Kaplan and Norton, 2001). Kaplan and Norton argue that the concept of BSC provides a broader view of the firm. BSC is not constructed as a static tool and involves a more dynamic

concept in order to visualize spread, content, implementation and applications. In addition to this the individual user's experiences, expected benefits and satisfaction are also embedded. BSC has become a most beneficial framework since it focuses perspectives on human resources, internal processes, the market, and shareholders to be managed at the same time and the connection between them is determined (Shadbolt, 2008)

Several researchers have used the balanced scorecard approach when examining a firm or a sector. Bigliardi and Bottani, (2010) made an empirical study by creating a balanced scorecard for several firms in the Italian food supply chain. The methodology was developed as a combination of literature reviews, case study techniques and Delphi techniques. They started their research by first identifying performance measurement and metrics for the food industry and the BSC model with relevant financial and non-financial indicators for firms operating in the food supply chain. The data was then analyzed through a Delphi technique to receive suggestions for improvements. The BSC was subsequently tested on two companies that operated in the food supply chain. The main findings of the study were that in the strategic areas the tested case firms already operated in three of the four perspectives similar to the BSC. The only perspective that the firms did not apply similarly to in the BSC model was in the learning and growth perspective. By using the BSC model in a supply chain management perspective it did complete previous work that was proposing a general BSC model for supply chain management. The findings of the study can not be generalized because of the specific area used, the food supply chain. However, the study provides a specific structured performance measurement for the food supply chain.

Using BSC in farm management would add a continuous learning opportunity for the individual farmer at the same time as it raises relevant discussions concerning the vision, strategy and critical success factors of the farm (Shadbolt, 2008). These factors are then to be translated into specific measures and objectives.

There are several different strategic management tools that can be used in farm businesses to help guiding strategic thinking. It could be strategic implementation and strategic decision-making but there are also several misused tools, for example the use of SWOT analysis, that has a poor subsequent identification of external opportunities compared to a BSC which is much more helpful to use. Shadbolt (2008) describes how BSC can be adopted on a farm or a non-farm business. One of the key factors for being successful in both a farm and non-farm businesses environment is to utilize the flexibility that is provided by the BSC tool, thus creating a framework that fits the firm's unique situation and combines its vision.

Studies have previously been conducted on how a BSC system can be applied successfully on small and middle size businesses. Fernandes *et al*, (2006) describe how BSC successfully can be applied on small and middle sized (SME) firms. They describe huge challenges for the British manufacture industry to survive in today's global and volatile market. An idea to face these new challenges is to apply newer management systems to elucidate the firm's vision and strategy and to react by action. BSC can be used for this purpose and it becomes more and more popular especially in SME. This study found that BSC can be successfully applied by systematic and structured methodology. Furthermore, experimental results of the study such

as the experiences, successes and knowledge were obtained by implementing BSC. In summary the papers conclude that BSC is useful for management and provides guidelines for implementation. Similar studies have been made by Gumbus & Lussier (2006). They found BSC useful in small firms even if it needed continuous updates.

Papalexandris *et al*, (2005) describe how to develop an integrated methodological framework for implementation of the BSC. The framework is based on existing knowledge but it incorporates critical issues that have been found during the research process. The aim of the study was to overcome certain serious predicaments that faced the implementation process by examining certain success factors that were found in literature. The methodology was based on the idea that BSC consists of a lot of different activities from other fields such as project management, change management, risk management, quality assurance and information technology.

The future success of a family farm cannot just be spotted by objective results it also involves several subjective aspects (Mäkinen *et al*, 2009). Mäkinen *et al*, (2009) studied the success factors of 296 Finnish farms. They analyzed the farms with both objective and subjective measurements by examining their farm records and obtained additional information through a survey. In their study they did not find a high correlation between the subjective question result and the objective result of the firms, but they believed in applying both in order to understand the success of the firm. The study showed that previous success in subjective measurements may prevail in a continued production despite the low objective result. In other words the study showed that the farmer's subjective beliefs concerning the opportunities of the business determine the expected performance of the farms. The subjective beliefs involve environment and individual motivation-related factors.

Due to increased farm size the strategic management becomes more important (Lund & Noell 2002). The use of strategic management becomes more essential than just helpful when the financial pressure increases. Farms are forced to adopt an operation plan and a helpful tool is the BSC. Lund and Noell (2002) conducted a case study on how to implement a BSC on Danish farms. The idea of the BSC is to connect the strategic plan with the daily operation. Therefore strategic management must be adopted and implemented with usable management tools. The idea is to start by identifying the firm's strategic goals. If the firms already possess previously defined strategic goals they need to be adopted into the new perspectives. Thereafter one needs to set milestones and goals, for example in the financial perspective. Relevant ratios to focus on could be return on capital, cash flow or projected profitability.

Lund and Noell (2002) conclude based upon their study that one should first shift from a more traditional static strategic planning framework towards a more dynamic and comprehensive strategic management practice. Secondly they argue that farms should shift their focus from internal towards a more customer oriented perspective. Thirdly, farms need to develop a stakeholder-perspective to be able to view the firm more objectively. Fourthly, due to the peculiarities of the agricultural sector the starting point for all strategic thinking should be from available resources, capabilities and other potentials the farm possesses. Fifth, the

accounting practices should be adapted to help strategic management and the balanced scorecard process. In other words the day-to day financial activities should be better monitored and used in the balanced scorecard.

### 2.3 Financial stress

Franks (1998) developed a definition labelled financial stress which is developed when the total return on capital is closing in upon the financial cost. This creates a scenario where the firm challenges its ability to maintain in business, therefore one of the most crucial parts of running a firm is to increase the return on equity (Franks, 1998).

Franks (1998) conducted a study to examine the likelihood of a farm becoming financially stressed in the next coming year by examining the financial changes that might influence the enterprise. The study is based on a study by Harrison and Tranter (1989) in which farmers where asked about how they solved the economic crises during the 1980's. Among the participating farmers half of them stated that they expanded their production and only a third of them said that they cut down on their expenses. Taken together this suggests that recession is not necessarily detrimental, regarding the developments for half of the farms. Financial strategies become more important during times when the agricultural sector experiences lower yields and prices, in other words agricultural industry recessions.

The study was designed to categorize farms into different financial stress sectors. The financial stress calculation consists of the lease cost of the farm including the interest expenses and dividing them with the result before financial cost and depreciation (figure 2). The factor received can then be compared with some given guidelines. If the ratio is between 0-25% the firm does not perceive any stress. If the factor is between 25-40% it indicates a possible stress in the firm, and if the ratio is 40% or higher the firm faces substantial stress.

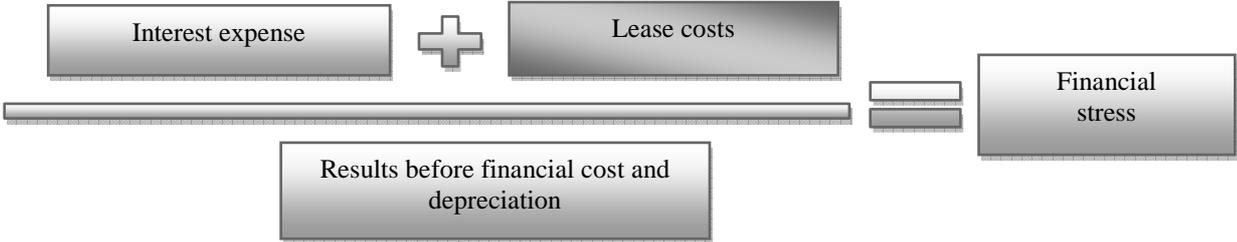


Figure 2. Model of Franks 1998 (own modification)

The study concludes that one of the most important strategies for farmers is to transform debt into equity to reduce the likelihood of being classified as financially stressed, but over the years Swedish farmers have instead increased their debt (Lantbruksbarometern 2012). From 2010 to 2012 the debt among Swedish farmers increased with 18, 4%. The total debt among

Swedish farmers where 2012, 239 billion SEK and the lending increased during 2010 with 7,2 %. During 2011 the lending from the bank increased with 7,7 % and during an eight year's period of time the debt to farmers has doubled (Lantbruksbarometern, 2012).

## 3 Theory

The theory chapter serves as an introduction to the chosen theories of this thesis, with the intention to answer the study's overall purpose and formulated research questions. There will first be a review of 3.1 Reason for growth in firms, a review of what creates and stimulates a firm to grow. 3.2 Strategic management, a briefing of the whole subject and use of strategy in firms. 3.3 Balanced scorecard, a review of the basic concept of a balanced scorecard. These theories will be used to substantiate the empirical study and to answer the problem formulated.

### 3.1 Reason for growth in firms

The total production level limits the growth of the farm (Karlsson & Renborg, 1969). Thereby a farmer faces many difficulties when expanding. A growing farm needs more land, capital for expansion, a competitive firm structure and investment in education and new knowledge. Growth is defined as a process while “growth” is the differential outcome between at least two points in time (Penrose, 1959; Delmar *et al*, 2003). In theory there is no limit to the economic growth of the firm (Penrose, 1959), but the growth through a period of time is limited by constraints which could be described as growth costs. The growth cost is assumed to increase with a higher growth rate. The higher the growth rate during a period of time, the higher the growth cost. The marginal cost of growth is in other words increasing by higher growth rate. Penrose argued that the rate of development in the managerial capabilities sets the ultimate limit to growth even though the productive opportunity is huge (Lockett *et al*, 2011).

The topic of growth is a central interest within entrepreneurship research. Despite the large interest and research the development in the topic has been slow (Davidsson & Wiklund, 2000; Delmar, Davidsson, & Gartner, 2003; Shepherd & Wiklund, 2009). The foundation of Penrose's theory is that firms are administrative units with potentially valuable resources. The manager's function is to decide what resources to use and what activities to carry out. Within this context, there exist two types of firm specific capabilities: the entrepreneurial and managerial capabilities (Penrose, 1960). Entrepreneurial capabilities are based on a function of imagination in contrary to the managerial capabilities which are based on the execution of ideas. Penrose (1959) concluded that entrepreneurial capabilities are important but not a necessary condition for growth. Managerial capabilities are however essential in order to attain growth. When reading Penrose's (1960) work it is important to acknowledge that it is a product of another time which may need a re-examination to fit in today's business environment (Lockett and Thompson, 2004). Her work was based on observations and their environment during the 1950s which is recognized as a period with sustained economic growth.

In neoclassical economic theory optimal production size in short and long term is discussed (Penrose, 1959). In the short run, an economically optimal level of production is reached when the marginal cost for producing one more product is equivalent to the product price. This makes the marginal utility of the product equal to the marginal costs. In the long term

within a market with free competition the optimal size of farm unit is obtained once the farmer reaches the lowest average cost for the product.

A difficulty while examining growth is to determine which appropriate growth indicator to use (Weinzimmer *et al*, 1998). Previous studies show a broad range of used growth indicators, including sales levels, profitability, number of employees and market share (Gilbert *et al*, 2006; Shepherd & Wiklund, 2009; Storey, 1994). These different growth measures represent different types of growth and depending on what type of growth that needs measuring, the choice becomes very important. Sales growth has been argued as the most effective and applicable growth variable since it is globally translatable through various contexts and is easily monitored (Delmar *et al*, 2003; Hoy, McDougall, & Dsouza, 1992). Monitoring growth over a longer period of time, for example 3-5 years, may ignore the ups and downs within the time period. Focus should be on the mean growth rate or the differences in size between the two time units. Several studies have shown that the firm size varies in a non-linear way over time (e.g., Delmar *et al*, 2003; Zook & Allen, 1999). Gilbert *et al*, (2006) found the most commonly used predictor measures for growth to be the personal characteristics of the manager, the available resources of the firm, the firm strategy, the geographical location of the firm, and the industry context.

What is creating growth in a firm could be labelled growth opportunities, these can be divided into two different categories; internal and external opportunities (Penrose, 1959; Gilbert *et al*, 2006). The external opportunities can be described as the *positive production opportunities* and the internal can be described as *unused available production funds*.

*The positive production opportunities* are positive external factors that facilitate the growth. They can be divided into; (1) Increased demand for the product; (2) Technical development or economies of scale; (3) Development or discovery of new product areas; (4) and special market shares. An important part of business management is to always search for new positive production opportunities (Penrose, 1959).

*Unused available production funds* represent the internal incentives to firm growth. It can be divided into *indivisible production funds*, *different utilization of production funds*, and *development of service and technological development*. This originates from that production funds could be used more efficiently and thereby increase the profits of the firm. These three areas also describe why a firm never reaches the equilibrium situation when it comes to resource combination in neoclassical economic theory. Unused available production funds could also be a source for competitive advantage (Kor & Mahoney 2004). Each company has *indivisible production funds*, it could for example be machinery or labor. No matter how good the firm is on management it will still have some indivisible production funds (Karlsson & Renborg, 1969). This presence of indivisible production funds creates a willingness among the managers of the firm to be put in use, which creates a quest for growth. *Different utilization of production funds* can be analyzed in different ways. Specialized production funds such as specialized machinery or specially trained employees demand a high utilization. However a small firm may still invest in highly educated staff or invest in specialized machinery and in a situation where the demand for the specialized work is low the machinery

or staff may continue working with normal not specialized work for the firm. These phenomena may lead to a desire to growth in the firm in order to saturate the specialized production unit (Penrose, 1959). There is always a *development of new productive services* in the firm; this development is the third incentive to the firm's internal growth (Penrose, 1959). The development can be created by the management or by the staff, there is constantly a development in the firm among the workforce through practicing results in the production. The firm's combined production funds deliver a larger portion of services, the larger the knowledge in the human resources. *Technological development* is another external reason why a firm never reaches the equilibrium situation. The technological development makes it profitable for companies to exchange existing production funds to new ones. The technological brokering should be studied by social structure, technological knowledge and internal routines (Hargadon & Sutton, 1997). It is the constant movement of technological development that is one of the reasons for competitive advantage.

In order for the growth opportunities to function there must also exist some fundamental business management assumptions; (1) The goal for business management is to profit-maximize. (2) There will never be an optimal firm size as long as there are profitable production possibilities, which presumably contributes to increase profits in the long run. (3) The firm most always search for new positive production opportunities and new development. (4) The faster the growth level is the larger the potential profit could be (5) The growth rate that a company is able to achieve in a period of time depends on the business management capacity. (6) Optimal growth level is determined by either the maximal growth speed that could be planned and carried out by the business management, or if the marginal profit of increasing the growth rate is the same as the marginal growth costs.

This structural perspective creates the growth process in the firm but if the growth process is moving too rapidly the firm will face growth barriers (Penrose, 1959). A growth barrier in the neoclassical economy theory causes the long-term marginal costs to increase from a certain point of production size within the company. The reason for growth barriers could be poor management which could be eliminated by delegating work duties and increased uncertainty with increased firm size which could be prevented with better prognoses and planning methods. The market space for the product could be saturated which could be eliminated by initiation production of products that do not compete with existing products.

Firm growth is a central problem because increasing in size does not necessarily lead to an increased profitability (Kor & Mahoney 2004). Increased size provides the necessary base for profitability improvements but not the profitability itself. It is the skilled completed organizational adoption towards the new or the constant increased size that determines if the profit will increase, this demands business management. Through the years new ways of thinking have developed on how to apply the theory of growth in the daily operation (Roos & Roos 1997). With a resource-based perspective only some firms make a serious effort to capture accurate measures and to perform a better management. To better use the theory of growth one could use a qualitative performance measurement that can include innovation, personal and customer satisfaction (Eccles, 1991).

## 3.2 Strategic management

Strategic management is “the essential process for coping with external change” (Ginter *et al.*, 2002). Strategic management has an important part to play in understanding why some farmers are able to grow and succeed in the market (Hill & Jones, 1998). Strategic management can also help today’s corporation in their managing of the firm’s affairs, in their questioning by stakeholders, government interests, society’s interest and also the corporates beliefs of its ability for substantial competition from other producers (Freeman, 2010). The aim is to link the strategic thinking and analysis into organizational action. Strategic management is the strategy an organization pursues that has a major impact upon its performance relative to that of competitors (Hill & Jones 1998). A strategy is a specific pattern of decisions and actions that a manager of a firm takes to achieve the firms goals and fulfill its vision. For a progressive farm a common goal is to achieve or maintain performance, and to succeed, strategic management is essential (Lund & Noell, 2002). Strategic management is unique compared to other levels of operational management. The differences from other operational management approaches are the non-routine, non-programmable, uncertain, more creative more ambiguous and complex approach (Harrison, 1999).

Strategic management at farms can be divided and described in four different areas (Giles *et al.*, 1990), where the first area emphasizes the importance of consistent management that affects all parts of the firm and adapts to the size and conditions. Second and third areas are about the product or service in a resource coordination view, where it is created in a sustainable and market-orientated production by human, physical and financial assets to a marketable product or service. Fourth area is about working environment which is emphasized as an important component for the sustainability of the venture. Traditionally strategic managers have primarily used financial ratios for measuring the success of the venture, for example return on capital and profit (Hill & Jones 1998). However financial monitoring is important for the firm but it is not enough by itself. To be able to carry out effective work against objectives, a structured approach to planning, control, coordination and monitoring is required (Ax *et al.*, 2005). To communicate and process targets with different agendas they can be made clear in a vision, mission and strategy. Each of them forms the ground and depends on each other and together they form the basis of the strategic management. The strategy is then implemented in the strategic management for the economic and process control. If strategic managers want to view the whole picture of the organizational performance the financial information has to be backed up by knowledge of how well the company has been performing in terms of other perspectives. These other perspectives can be divided into (1) Innovation learning and growth (2) Internal efficiency (3) Responsiveness to customer (Hill & Jones, 1998). Adopting that conclusion Kaplan & Norton (1992) created the balanced scorecard which has its heritage from the theory of growth and strategic management (Roos & Roos, 1997).

### 3.3 Balanced Scorecard

Balanced scorecard (BSC) is a strategic management tool created to present a more holistic picture of the firm's operation, a better overall view than the traditional economical accounting (Kaplan & Norton, 1992). The BSC is used as a link between the company's strategy and vision of their operation. With the holistic picture of the operation the BSC connects the vision and strategy to the operation and prevents suboptimization (Mooraj *et al*, 1999). Traditional financial analysis of firms focuses strictly on the economic ratios of the firm and is not taking "soft values" such as customer relationships and development activities into consideration, which is of importance in the long run for the firm. Kaplan & Norton (1996) state that the BSC is not only a strategic measurement system but it can also be used as strategic control system and thereby clarify strategy, link strategic objectives to long term targets and budgets, identify strategic initiatives and obtain feedback for future strategic improvements.

The traditional BSC is divided in four different perspectives; the financial perspective, customer perspective, internal perspective and the learning and growth perspective (Kaplan & Norton, 1993). Embedded into the perspectives are three of the business stakeholders, the shareholders, customers and employees (Mooraj *et al*, 1999). Kaplan & Nortons (1993) study was conducted on 12 different companies in England during one year. They studied the performance measurement of the firms. The result of the study leads to the BSC model as displayed in figure 3.

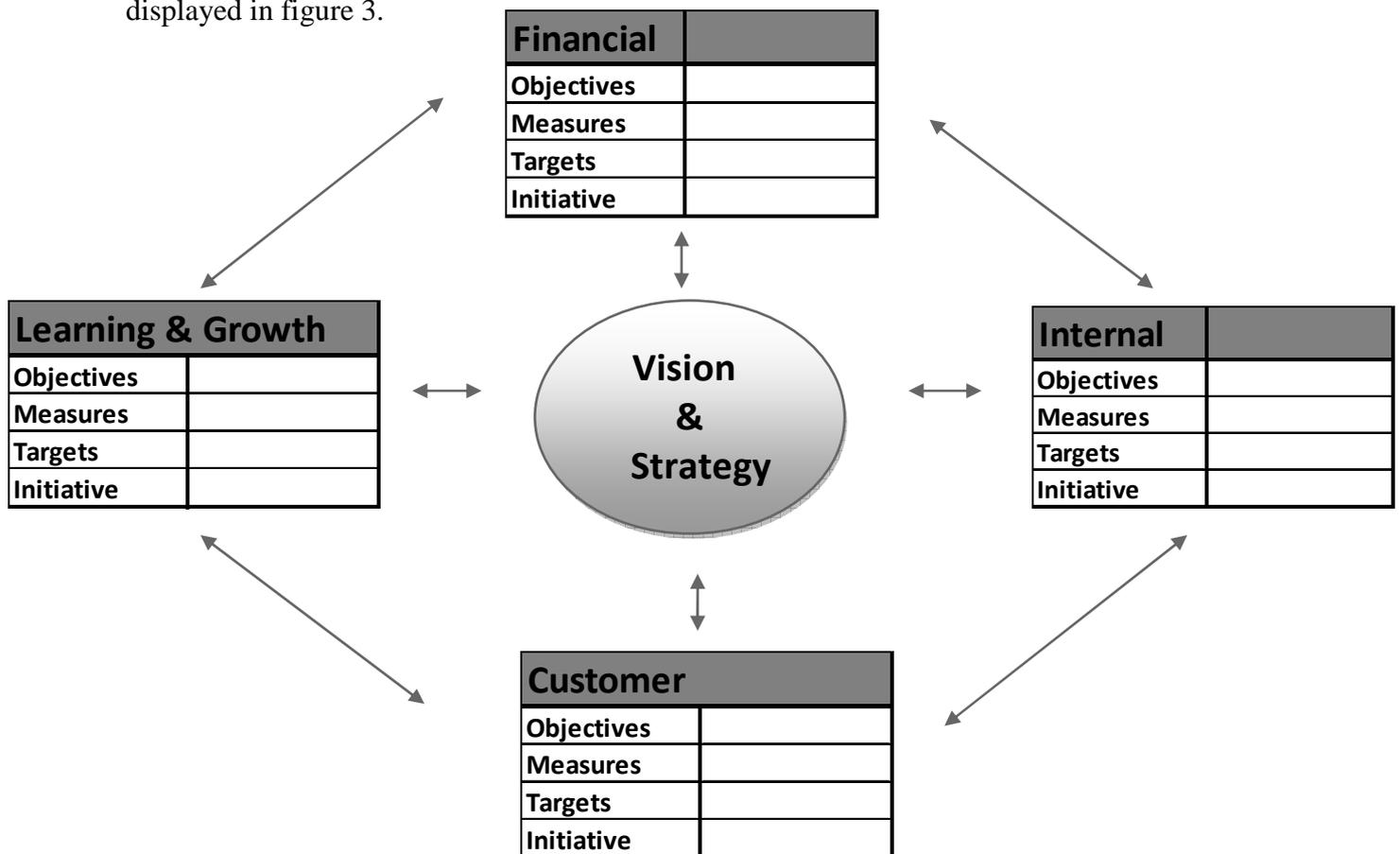


Figure 3. The Balanced Scorecard (own modification)

Central in the BSC are the vision and the strategy (Olve *et al*, 1999). A well-developed vision and strategy for the firm combine all the different perspectives to a common goal from which they all originate. The different perspectives are then divided in special ratios, targets and initiatives which all should be chosen especially for the specific firm and will lead and guide towards realizing the vision and strategy (Kaplan & Norton, 1993). Crucial for the choice of ratio is to make them easy for every employee to understand and include. It is important to maintain an overview perspective and to avoid suboptimization.

The *financial* perspective represents the long-term objectives of the firm. The chosen measures aim to present relevant stages within the product or service life-cycle. Such objectives are commonly evaluated within growth, sales volumes, new customer relationships and process development (Mooraj *et al*, 1999). The perspective covers the traditional part of financial measures for example profitability and growth demands from the stakeholders (Olve *et al*, 1999). This perspective also shows the consequences of the other perspectives and strategic goals in terms of economic results. Other parts of the perspective are the cost- and investment strategies of the firm which also have impact on the other three perspectives.

The *internal* perspective aims to create strategies for the processes in the firm. These processes focus on creating products efficiently as well as delivering customer value. Many of the goals in this perspective are traditionally to increase efficiency and change current processes. The objectives can be short and long term as well as a continuous process development for improvements. Within a changing company the internal business perspective plays an important role to focus the business activities towards the required direction (Mooraj *et al*, 1999). The manager of the organization has to be able to focus on critical internal business processes that may interfere with the satisfaction of the costumers (Kaplan & Norton, 1993).

The *customer* perspective is aimed towards the customer or stakeholders of the firm (Olve *et al*, 1999). The objectives are to secure a high customer satisfaction and customer retention at the same time as it meets the organizational requirements. Measures for this perspective are for example market share, customer value and customer profitability. The stakeholders' perception of the organization connect directly to their belief in the product. To constantly work on the organizations position on the market and its surroundings is a central part for the firm (Kaplan & Norton, 1993).

The *learning and growth perspective* focuses on how the firm can provide service, improve and create more value to grow (Mooraj *et al*, 1999). The BSC process tends to identify the gaps between the required and existing skills and capabilities in the firm, by identifying the lack of skills, new goals and initiatives for the future. The measures within this perspective can be quite varied. It could for example include ratios such as revenues from new service or growth in turnover. The bottom line question within this perspective is how the firm can sustain its ability to change and improve. The organization's ability to learn and grow connects directly to its ability to create value (Kaplan & Norton, 1993).

According to Ax *et al*, (2005) there could also be a fifth perspective in the BSC, the employee perspective. This perspective is not commonly used outside Sweden. The perspective can be

essential for a lot of companies since most of them have a goal of good relations with employees. A positive social climate among the workforce is of great importance for the success in all other perspectives (Kaplan & Norton, 1993).

The BSC is a tool which expands the traditional measurement area regarding accounting. The aim is to reduce the problems in using only financial measures for control. It has, although not intended, become a control system (Norreklit, 2000). The BSC adds non-financial measures in a strategic control framework which makes it closer connected to the reality of the operation. As it is linked together in a casual chain, it passes through the entire company (Norreklit, 2000). The BSC may contribute to better communication within the company when the strategy is no longer only restricted to financial measures (Norreklit, 2000).

When implementing BSC a basic planning model could be used (Hill & Jones 1998). The planning model could be divided into five main steps; (1) select the corporate mission and major corporate goals (2) analyze the organization's external competitive environment to identify opportunities and threats (3) analyze the organizations internal operating environment. (4) select a strategy that points to the organizations strengths and weaknesses. (5) implement the strategy (Lund & Noell, 2002).

### 3.4 Critics of the BSC

Shadbolt *et al*, (2003) mention some criticism towards the BSC framework. After they had conducted a case study where BSC was implemented to three multi-enterprise family farms, the authors found an absence of social goals in the model. The participating farms believed the framework to be useful in their farm operations but did not include such aspects as quality of life and other aspects of importance for their living situation. Secondly, the customer perspective was perceived as unclear since the farmer often faces a lack of options in terms of marketing the products.

Rompho (2011) also focused on investigating the limitations implementing BSC to SME firms. The aim was to find the reason why implementation failed. By data collection, interviews and observations on the concerned firms, the findings revealed a failure of BSC since the strategy was changed too frequently. In a SME business setting where market changes are more rapid and frequent in comparison with larger companies, difficulties in formulating and maintaining the same strategy occurred. The study showed that over a two year period, the BSC measures were revised many times due to changing business climate. As a result, the employees of the firm experienced confusion at their work.

Furthermore, Lund & Noell (2002) bring up a couple of different criticisms in their study. The cause-effect relationship across the four different major perspectives is problematic, for example in order to fulfill and increase customer satisfaction the financial results may decrease. Another criticism is the restriction to four BSC perspectives. The meaning of the BSC framework is to satisfy all relevant stakeholders in the firm for balance in the

framework, one example is the financial perspective which focuses on an owner's perspective whereas the customer perspective focuses on a product or service perspective.

### 3.5 Alternative management theory

Alternative management theory that can be used to analyze the research questions is the resource based view.

#### 3.5.1 The resource based view

The resource based view (RBV) of the firm is a strategic management approach which originates from the firm and its resources, aiming for a competitive advantage (Landström & Löwegren, 2009). A firm consists of different resources and it is the application of the bundle of valuable tangible and intangible resources that focus on finding the optimal resource allocation. Supporters of the RBV argue that organizations or firms should locate the resources within the company in order to find the competitive advantages instead of investigating the competitive environment.

Tangible resources consist of the physical and disposable resources of the firm such as the financial, physical, human, social and organizational resources that have been categorized by Greene *et al.*, (1997). Intangible resources of the firm are the nonphysical resources that still are owned or possessed by the firm. These resources can be brand, reputation, patents, and technological or marketing knowledge.

RBV can also be used to define whether the firm has competitive advantage or not (Landström & Löwegren, 2009). Competitive advantages make the firm more interesting for the customer and therefore deliver so called excess profits. The competitive advantage can be analyzed by a framework call VIRO (valuable resources, imperfect resources, rare resources, organized resources). RBV assumes that all resources have to be heterogeneous and immobile.

### 3.6 Choice of theory

The aim of the study is to conduct an evaluation of the strategic farm management activities of growing farms in Sweden to identify how the farmers work with strategy, goals and initiatives towards expanding their businesses. In order to answer the research question and fulfil the aim of the study the chosen theory is motivated by the theory of growth, strategic management and the balanced scorecard. In order to keep an objective as well as subjective approach towards the case farms, the chosen theory provides a good platform for understanding and discussing the provided data. As this study aims to explore the settings of the farmer, both financial and non-financial data are essential to understand the managerial process.

## 4 Method

In this chapter the research methodology of this thesis is presented and motivated to reach the aim.

### 4.1 Research approach

#### 4.1.1 Fixed and flexible design

Fixed and flexible research designs are different approaches for research (Robson, 2011). Fixed design is commonly referred to as a quantitative method and the definition implies that the main part of the study is fixed before the data is collected. In quantitative research design it is essential that the key variables are specified in advance (Robson, 2002). In fixed research design the risk of personal affliction is rather limited however it requires a great deal of understanding and knowledge in the field of study. Qualitative research is based on a larger sample of data to create a more general understanding and is most suitable when research is complex and explorative (Denscombe, 2009). In flexible research design and qualitatively orientated methods the data collection can be conducted over time as part of the research process. A flexible research design also requires that the researcher is thorough and careful. Reliability in flexible research designs is related to the use of standardized research instruments (Robson, 2011). Researchers using a flexible research design need to pay attention to the reliability of their methodological approach and practice. It involves showing others that one is aware of the issue of reliability in addition to conducting thorough research.

Qualitative research focuses on a smaller sample and does not seek quantitative data which describe general opinions (Brinkman & Kvale, 2009). The purpose is instead to find specific explanations that describe the complexity of situations. Questions are thereby more open in order to enable a deeper understanding about opinions, feelings and beliefs from the respondent. When applying flexible design, data collection is detailed and multiple sources are used. The aim of flexible design and qualitative research is to provide an explanation of the reality (Robson, 2011). The aim is to place the researcher in the problem setting and to obtain further understanding of the problem area. Using this research design the quality of the study heavily depends on the researcher's ability to remain neutral, open-minded and listening. Since this thesis aims to understand the setting and behavior of the farmer in terms of farm management, a qualitative approach is seen as the most applicable method.

#### 4.1.2 Used methodology

There are many different methods to collect empirical data that could be done in either a qualitative or a quantitative approach (Brinkman & Kvale, 2009). This study is to be conducted as a flexible qualitative method approach, since the aim is to identify key success management factors of case farms in terms of creating growth and profit over time. The objectives of the study are to examine to what extent farm managers apply strategic management thinking through a BSC perspective where goals and strategy are evaluated. Since this issue is inherently difficult, a qualitative method approach is viewed as most suitable. Realized economic results can be quantitatively evaluated since this study searches

for a deep understanding of the association between financial indicators and managerial capacities defined by BSC. Some of the complexities the study faces are to define the most accurate interview questions in order to obtain reliable results for the research process. The decision not to use questionnaires for this study is based on the lack of detailed answers and relation to the investigated setting. Another reason is that by conducting personal interviews detailed questions can be asked that would strengthen the validity of the study (Denscombe, 2009).

Since this study relies on a flexible design where the researcher is seen as an instrument the validity may be debated (Robson, 2002). Validity is a term which refers to how well the empirically collected data can be measured and analyzed. When working with flexible research designs, the importance of not being biased is essential. Researchers' own beliefs, values or interests need to be put aside in order to obtain validity of the study.

## 4.2 Review of theoretical framework and literature review

A central part in the research process is the development of theory (Eisenhardt, 1989). The research requires a focus in order to categorize data. In case studies research the choice of research questions and a defined unit of analysis are important (Yin, 2009; Eisenhart, 1989). Furthermore it is important to develop a good theoretical understanding of the theory. The theory aims to provide a better understanding of the problem. In this study, the importance of understanding the key foundation within theory of growth, strategic management and its practiced tools are necessary for formulating accurate interview questions.

The theoretical framework of this study is based on theory of growth, strategic management and the balanced scorecard (BSC). These theories are used to evaluate each case farm in their way of defining goals, formulating strategy, their ability to locate success factors of their firm growth and profitability over time. In this case study where several farms are included, the theoretical background provides a good understanding of the business activities the farmers may work with. The BSC model is commonly used as a tool to enhance strategic thinking with a focus on the future. In this thesis, the BSC model will be used more as an evaluation tool and explanatory framework of performances in the past.

A thorough literature review is important to explore earlier studies and their findings in the field of topic. All studies provide a set of individual findings and approaches towards theory and methodological issues. By a broad literature review search, the number of critical issues within the research field can be easier handled or avoided. The literature used in this thesis originates from academic journals, textbooks and published articles. The literature research was associated with *Farm growth*, *Farm management*, *Strategic management farm*, *BSC* and *SME*.

## 4.3 Case study

A case study research approach is a qualitative method (Robson, 2002). Case studies can be applied to an individual person, groups or an organization. Case studies involve a high

devotion towards research design, data collection, analysis, interpretation and reporting of results. Using a case study approach often leads to multiple methods of data collection. Both quantitative and qualitative data can be used although qualitative data most often account for the greater part (Voss *et al*, 2002). Case studies focus on the case itself but also its context and setting and are fundamental towards answering the research questions. Conducting a case study with two researchers requires mutual involvement and participation in the process of formulating interview questions (Robson, 2002). In case studies the formulated questions are very important although time consuming (Yin, 2009). Common questions are “why” and “how” and they have to be well directed and formulated. In most case studies it has been appropriate to study more than one single case.

It is argued that multiple case studies may be viewed as several experiments. Usually six to ten case studies are suitable to fit in the research project (Rowley, 2002; Yin, 2009). This thesis motivates a number of eight case studies in order to obtain a deeper understanding of the problem. The literature reviews show that case study has been a frequently used methodology approach in similar studies (eg. Rompho, (2011); Bigliardi & Bottani (2010); Mäkinen et al, (2009); Gumbus & Lussier (2006); Shadbolt (2003). In all academic research the unit of analysis needs to be defined (Yin, 2009). In this study the unit of analysis is the participating case farmers and to identify key management factors among the case farms. The case farms will be economically compared to SCB farms which will be a relevant reference concerning the growth and profit difference. The study is relevant since farm units tend to become larger and often struggle to maintain profitability when capital investments increase (Lund & Noell, 2002). Since this trend is believed to continue, this topic of study will hopefully gain further research attention. Hopefully this study will result in a guideline of competitive thinking for Swedish farmers.

## 4.4 Collection of data

### 4.4.1 Interviews

The collection of data was made by interviews. Interviews are frequently used in research methodology (Robson, 2011). There are several types of interviews which can be performed, and they all have their advantages and disadvantages. Depending on the research topic, fully structured interviews, semi-structured interviews or unstructured interviews can be used. Less structured approaches often allow more flexible answers from the interviewee. Interviews are usually conducted face-to-face and one-to-one. However, they can also take place in groups, or by telephone, due to efficient resource minimization (Robson, 2002). Questionnaires and interviews have been used in similar research which has been studied in the literature review (eg. Mäkinen et al, (2009); Rougoor, (1997); Harling & Quail, (1990). Therefore, our data collection mainly relies on semi-structured interviews.

Semi-structured interviews are often used in flexible research designs, with pre-prepared interview questions, to which follow up questions could be added when needed (Robson, 2002). A number of follow up questions may often raise some interesting discussion and add

further questions to the research project. A personal interview will also result in more detailed answers (Denscombe, 2009). Since qualitative approach aims to reveal the setting of the investigated case, interviews are an efficient method of providing understanding of the phenomena. In this thesis, face-to-face and semi-structured interviews were performed at each case farm and seemed as the most suitable interview approach. This is motivated by meeting the interviewees and to visit each farm in order to make an objective and subjective evaluation of the management of farm growth and profitability. Semi-structured interview questions make it easier to maintain focus and structure during the interview with the possibility of using follow-up questions (Robson, 2002).

Testing the interview questions is an essential and initial step towards data collection in order to make sure the questions are clear and understandable (Robson, 2011). The interview questions were discussed with LRF Konsult, the thesis supervisor and tested on two independent farmers. Testing the interview questions and method provided useful feedback and good practice. The main revisions made after the pre-tested questions were mainly changes in the formulation, structure and extent. Some additional questions were added in order to obtain further details.

The pre-prepared interview questions were distributed to all participants a week prior to the interview. The purpose was to give the interviewees a chance to reflect upon the questions and to prepare themselves. The interviews were scheduled at an early stage of the research process. Since the thesis timeline reaches through a labor intense period of time for agricultural seeding, the interviews had to be scheduled in advance. The interviews were structured into sections, based on theory and they are presented in appendix 1. The first section was labeled as *Brief background of the farmer and the farm*. The first section aimed at getting a broad understanding of the history of the farmer and the farm production, as well as to make the interviewed farmer comfortable as Trost (1997) recommended in order to increase the quality of the study. The next section was labeled *internal business perspective*. This part involved questions of how the farmer worked with goals and improvements within the farm operation. The next section was labeled *the customer and market perspective*. This section involved questions regarding how the farmer worked with goals and strategies towards the customer and market. The next section was labeled as the *financial perspective*. This section involved questions on what financial goals the farmer had and how he worked towards reaching them. This part also included a part where the farmer rated his experience of growth and profitability. The final section was labeled *The learning and growth perspective*. This section involved questions concerning learning and experiences in the farm business and how these can help the farmer to further develop the operation. Experiences and thoughts of the future were deeply discussed.

#### 4.4.2. Respondents

The choice of respondents can be selected randomly or individually depending on the specific characteristics demanded (Denscombe, 2009). Brinkman & Kvale (2009) argue that there are no optimal numbers of interviews and it differs between studies. However a reliable number

is about 5-25 performed interviews. Within qualitative research a smaller sample of respondents is preferred since the analysis of interviews becomes more clear (Trost, 1997).

In this study the population of interest is farmers who operate a growing and profitable farm enterprise. The study will rely on multiple sources and conduct eight interviews in total, at 8 different farms in Sweden. In order to select farmers, LRF Konsult contributed with a sample of recommended farmers for this study and their contact information. All the eight contacted farmers were happily participating in the study through interviews and assisted with financial data. All meetings were scheduled one month in advance and the interviews were performed in the farmers home. The two researchers of the study were mutually taking notes and asking questions. Notes were taken with pencil and computer and no recording devices were used. In table 2 below, the schedule of the week when the interviews took place are presented.

*Table 2. Schedule of interviews at case farm 1-8*

	<u>Monday 2/3</u>	<u>Tuesday 3/3</u>	<u>Wednesday 4/3</u>	<u>Thursday 5/3</u>	<u>Friday 6/3</u>
<b>Morning</b> 09.00-12.00	Case farm 1	Case farm 2	Case farm 4	Case farm 6	Case farm 8
<b>Afternoon</b> 13.00-16.00	-	Case farm 3	Case farm 5	Case farm 7	-

#### 4.4.3. Direct observation

Observation is a common technique to examine the real world (Robson, 2002). The advantage of observation is its effectiveness which requires no questions or preparation. Observations only require the researcher to observe and listen. There is however a risk of misunderstanding and misinterpreting the situation in a wrong way. Observations are commonly used as a complementary method in order to receive further understanding of the investigated problem area (Yin, 2009).

In this thesis direct observation formed an essential part of understanding the farmer and his business. The direct observation contributed to an increased validity of the study and provided a more accurate analysis of the interviewee. The observations were conducted during the visit at the farm. The interview provided impressions and insights of the farmer and his setting.

#### 4.4.4 Transcription

After the interviews were performed, they were transferred from oral notes to written language. It is important to transcribe material fast as the possibility of losing data increases (Brinkman & Kvale, 2009). Throughout the interviews notes were taken by pencil and computer. After each conducted interview a summary was made of results and discussions of the data obtained.

### 4.5 Data analysis

A large part of the research process is to analyze collected data (Robson, 2002). The analytical part of the thesis requires a clear link with the objectives, chosen theory and literature (Yin, 2009). As this study is conducted with a qualitative method most data consists of interviews and observations. In addition to this the study also involves some quantitative data consisting of a financial ratio analysis. The Financial ratios were then compared with

statistics from SCB reference farms. This thesis uses thematic coding to organize the data. The aim of thematic coding is to explore what the results mean (Robson, 2011). After the transcription of the results the data was sorted into several themes. The thematic coding in this study focused on summarizing and displaying the empirical findings into a clear and understandable structure for the reader. The different themes developed for this analysis method are structured into the four BSC perspectives; financial, customer, internal and learning- and growth. Moreover, the data was displayed into tables and figures.

Thematic coding analysis is a flexible tool for analyzing different sorts of qualitative data (Robson, 2011). This analysis summarizes the key features of the data and its result and may leave less room for interpretation. The method is chosen to summarize key features which can be easily communicated. In this thesis, the thematic coding was motivated by the clear structure and easy understanding of results which could provide a deeper understanding of the problem. By structuring the results within the four BSC perspectives, the results will be displayed and gathered into relevant themes.

## 4.6 Ethics in research

Ethical consideration is an important factor to consider during research (Robson, 2011). It is of great importance to prepare and discuss what ethical aspects and dilemmas that might occur before conducting the interviews. Since this thesis relies on anonymous participation of eight farms the need for discretion and ethical approach is essential. When involving other parties in the study the importance of sharing the objectives of the study with the participant's parties are essential (Oliver, 2010). In this thesis all involved participants were informed about the aim and model applicable to the study. The assembled data cause some ethical issues in terms of reporting and publishing results for example regarding the confidentiality and the trust among the participants (ibid). A good way of dealing with this dilemma is to give the participant farmers the opportunity to read and validate the transcribed material. The role of structure and formulation of issues are also to be dealt with carefully. Since the participating farmers share their personal experiences and accounting records, the importance of keeping a respectful approach and mindset is vital.

## 5 Empirical study

This chapter contains the empirically collected data and will provide the reader with the findings of this thesis. 5.1 provides some additional information for the conducted case study. In 5.2, the findings from the interviews with each case farmer in the BSC framework are displayed. 5.3 presents the financial performance of the farms.

### 5.1 Empirical background

This chapter aims to give the reader a better understanding of empirical material. The regional area where the study is conducted is characterized by plain agricultural land. By help from LRF Konsult, the researchers have been able get in contact with eight farms. As one of the objectives of the study is to keep the participant farmers anonymous, no recognizable details will be presented. Altogether, these farms represent about 4000 hectares of arable land and a high throughput of animals.

### 5.2 Qualitative findings structured in BSC framework

In this chapter the empirical findings from the interview will be summarized for each case farm individually in a BSC framework. In appendix 1, the interview questions used are presented which are theoretically based on the theory of growth, strategic management and balanced scorecard (seen in figure 3).

#### 5.2.1. Case farm 1

Case farm 1 is a large-scale ecological crop producer.

##### *Financial*

The financial strategy priorities of case farm 1 are to have a pleasant life, a viable farming business and to build a wealthy farming unit. By working with cost consciousness one of the targets is to make sure that there is no liquidity shortage during the summer before the harvest starts. When it comes to the machinery costs he believes in the importance of recognizing the true costs and thereby an accurate interpretation of the bookkeeping is essential. The financial development over time has been good which have led to increased tillable land and increased production and furthermore provided a better net margin.

##### *Customer*

The customer perspective of case farm 1 has been a high value product oriented business approach. The farm involves a high degree of niche production, which is based on the increased public demand. Since the demand for ecological products has increased over the years case farm one believes in future development of the business. There is a high demand for ecological milling grains although many of these products end up in the feed industry. *“You have to know your customer, but you need to know your customers’ customer better”* (pers. com., farmer 1, 2015). The farmer aims to follow the debate of ecological farming and to evaluate on a weekly basis what customers in the food store purchase. The role of CAP in the internal business perspective is most valuable when it comes to investments in the farm. The subsidy is believed to be beneficial but not necessary. Case farm one believes that the

customer's willingness to pay is what matters the most. The sale channels used are widely spread and one of the targets is to have a wide range of business customers. Lastly, the most important factor for the business is to be flexible in the customer perspective. The farmer fears the risk of having invested too much capital which could limit the flexibility of the operation.

#### *Internal*

In the internal perspective devotion is crucial for the farm business. A high level of communication and experience are beneficial during expansion. In order to maximize the economic results of the internal business, all the enterprises activities originate from the fertility of the tillable soil. The technological development has made the internal business processes more efficient and has improved the results. The farmer of case farm one believes that the farm operation is highly competitive and could be recognized among the top ten most competitive ecological farms in the region. The knowledge within the company is based on the farmer's educational background as an agronomist and the heritage of the family farm. The workforce during the harvest consists of some extra employees.

#### *Learning & growth*

Case farm 1 has undergone a rapid expansion of the farm business over a period of years. The increase of tillable land has been steady. The expansion has left an experience in the farm that when they increased in land the revenues increased by 100 % but machinery expenses only increased by 40 %. Therefore the profitability and contribution margin have been increasing over the years. The workload and the ability to run the farm are also believed to become easier. "*Running a farm is like riding a bicycle, it is easier to keep a good balance when one has a higher speed*" (pers. com., farmer 1, 2015). The quotation is referred to the farm manager's experience of managing the farm in terms of financial and technical parameters. Another important aspect that has made the expansion easier to accomplish is the availability of manure which has been delivered by an external partner. In this particular farm operation the supply of enough manure is of great importance. Because of the supply of manure, the crop production has been improved.

### **5.2.2. Case farm 2**

Case farm 2 is a large-scale hog and crop producer.

#### *Financial*

The main financial goals of case farm two consist of having a buffer that allows the farm to handle possible and necessary investments. A reasonable amortization plan and well-planned depreciations are of high importance. The goal is to be among the top 25 % most successful farms in the market. The farm has over the past years used several monitoring devices in order to compare the farm operation against others. The farmer believes that being compared is a good way of finding the farm's strengthes and weaknesses. The monitoring is especially used in the pig enterprise part of the farm but it is not as satisfying for the crop production. The aim for the future is to have more standardized monitoring where each batch is

thoroughly evaluated. A financial key to success has been the purchase of land. Since the value of land has increased the solidity of the farm has been increasing which has made it easier to manage and finance further investments. The profitability of the farm has been perceived to be satisfying over the years.

### *Customer*

The customer and market perspective of case farm two is fairly standardized. The farm operates a large bulk production in Swedish terms but in an international comparison the farmer considers himself to be very small. The main customers are SCAN and grain traders. The farmer believes that there always will be a market at some price for their products. Over the past ten years the market for hogs has been decreasing but now it starts to improve and he is optimistic about the future. The farm has on the other hand tried to develop its production by finding new products to increase customer satisfaction. The farmer has tried to create a niche product as a complement to the bulk hog product. The aim has also been a better risk position and to find interesting projects. He does not believe that the farm is in the front line of developing new products. *“In that case we would have started making our own on sausages”* (pers, com., farmer 2, 2015). The farm has been open-minded to diversification and new product development although very few of the ideas have led to any further development. The farm has also been open for co-operation and so far he has not experienced any problems. The farmer is not a fully convinced supporter of CAP, but does apply for investment subsidies.

### *Internal*

The farmer believes he has a benefit of his interest in being in the stables, which is important in order to maintain a profit in the daily production. The motivational drivers are the entrepreneurship and the unpredictable farming lifestyle and also the next generation's interests and willingness to continue farming in the future. The farmer believes that there has been an enormous improvement in the technological development over the years, in both machinery and the structural changes in increased tillable land. He also believes that the farm has experienced the same land increase and machinery cost scenario as case farm 1. During the years they have improved the efficiency and managed to increase the output capacity with 100% while only increasing the cost by an extra 40%. In that way they are now more efficient on a large area of land compared to what they were before. They also believe that there is still a lot of improvement left to do. Overall the feeling has been that the agricultural regulations have mal-functioned the production both in the pig industry and the grain market. The farmer is not really interested in expanding the grain production instead he tries to focus on maintaining and increase yields on the existing acres. He believes that he has been growing because there have been opportunities and not because he has been forced to. The farmer also believes that he has always been a little bit to stressed to do a good planning work, something he now wishes to improve. Decision making in the farm operation is based upon the production economic aspects rather than the farmer's instinct.

*“The instinct has fooled me before, and it can become expensive to be wrong in this market”* (pers, com., farmer 2, 2015).

### *Learning & growth*

The farmer has developed an idea on how to inspire the employees. The farmer sold out a part of the hog production to an employee in order to inspire and increase the profit. The goal was to increase the number of piglets per sow, which would lead to a huge increase in profit. By analyzing the initiative the farm has increased the production with 1500 piglets a year, which has resulted in an increased profit. The farm is open-minded for this solution in other enterprises as well. The experiences of co-operating with other farmers are that the social bonds between the cooperators are very important to consider. A more intensive cooperation with many operators is believed to create more problems than positive results since the difficulties in decision-making and the problems of entry and exit become larger. When evaluating the expansion period that the farmer has been through, the importance of having a monetary engine in the farm is necessary. The hog production has created a great cash flow and provided manure and utilization of feed grain. *“For me, the hogs have been the most important reason why I have been able to expand in such ways.”* (pers, com., farmer 2, 2015). As for the future, the aim is to improve the primary production and utilize the production even more. The farmer sees no greater need for further increase of tillable land, rather to become more efficient.

### 5.2.3. Case farm 3

Case farm 3 is a large-scale crop co-operation.

#### *Financial*

The financial goals of case farm three are to maximize the profit for the owners. The company is a merger of several farms where all crop production is assembled. As a part of the merger the farmers put up certain economical goals that they want to achieve. They strived to reduce their machinery costs and increase their profit. By lowering the machinery costs they would obtain economies of scale simply by measuring their machine cost per hectare. The farm operates in a low marginal business with a bulk product, therefore they believe it is easier to reduce the production cost than to increase the sales prices. The contribution margin along with the profit has increased since the cooperation began.

#### *Customer*

In the customer perspective the aim is to work towards a broad range of different buyers. By selling and buying products only from one dealer they risk not to get the best price in the long run. By attracting new buyers the possibility of receiving a higher price and establish a new customer relationship increases. *“Making a few calls to various different buyers within an hour, can easily result in a substantial revenue increase, these things are important to consider in this low margin business.”* (pers, com., farmer 1, 2015). The farmers perceive a substantial importance of maintaining a good network for future knowledge, inspiration and guidance. The farm has a strategic plan of maintaining its network and also to expand it. The farm is not working a lot with CAP and the owners are not in favor of the policies. The farm only strives to receive the basic subsidy and nothing more. Discussions concerning reorientation of the company towards more niche production have taken place, but not developed

further. Ecological production is perceived as an option but it is not regarded among the owners as a required option or goal.

#### *Internal*

The internal strategy is to strive for structural advantages and after the merger, the farmers have not considered anything else than conventional agriculture. However, as prices still rise on ecological products they might consider it for the economic benefits. Another internal strategy is to keep the companions motivated in the farm, and for the leader the strategy is to guide them in the appropriate direction. One internal process goal when the cooperation started was to increase efficiency. Over the years the company only has one employee the CEO but during season when the labor capacity increases all the four owners work which provides the company with a good capacity. By going from several individual farms into a new cooperation created a great need for developing a team spirit. The goal was to ensure that every voice from the owners was heard and discussions were allowed and responsibilities appointed. It was believed that new thinking and adjustments among the new owners would be as much of an advantage as it could be a potential source of conflict.

#### *Learning & Growth*

An important part of their philosophy is to maintain a good relationship with each other. It is of great importance for their companionship that every social connection to each other is stable. Another part for the company is to integrate the different companies' culture together. Every single companion had his own company culture and with that own ideas on how things were supposed to be done. As a leader it is important to get everyone to accept the strategic goals and to make them understand the overall picture and motivate every companion to strive for the common goal. The owners have attended several educational meetings, where new knowledge and issues have been raised. It is important to be inclined to change and adapt to changes in the market. An opportunity to diversify the crop production could be to invest in bioenergy. *"When it comes to farm management an open mind and a trial and error mindset are essential in order to develop"* (pers. com., farmer 3, 2015). Concerning further growth of a farm business requires a stage of maturity before further expansion. *"You need to grow with profitability, if you have a lack of profitability in the first place you cannot assure yourself to reach it by growing."* (pers. com., farmer 3, 2015).

#### 5.2.4. Case farm 4

Case farm 4 is a large-scale crop and cattle producer.

#### *Financial*

Case farm four has clear financial goals; the first one is to achieve a reasonable profit. The goal is to reach a financial result of 1 million SEK each year. The farm is also monitoring the actual result in addition to the accounting result. Another goal is to have a profit of 10 % relative to the turnover, which they have not achieved yet. The farmer also has a good follow up on the debt divided on the turnover ratio and demands it to be between 1 and 2. *"I do not want to be underleveraged, I want to be in power instead of the bank."* The farmer has a

belief that it is first of all the farmers rather than the market that determine if the financial target is reached or not. If the financial target is not reached, it might be caused of the wrong choice of supply chain management or the use of inputs. The farmer works a lot with long term contracts, which requires planning.

### *Customer*

The farm has designed different strategies for various products. The marketing of grain is based on short-term customer relationship by simply accepting the best price offer at the time when it is suitable for selling. When it comes to cattle the strategic goal is to be the best customer towards the slaughter house, this is a long term strategy based on the simple idea that the slaughter house does a better job dealing with the beef then the farmer does. The farmer also believes that they have benefited because of the increased demand for Swedish meat through the years. The farmer tries to be in the front when it comes to adopting new technologies and tries to get as much as possible out of CAP. As a part of a plan for being more available towards the slaughter house the farmer built the new cattle stable accessible for cattle in all different weights, in comparison with traditional cattle stables which only can handle a certain weight. The farm's grain dryer and storage are also built to be able to separate different crops with different quality. With a good liquidity the farmer believes he will be able to sell the products at the best time throughout the season. Across the years the farm has changed crop production from livestock feed to grain for human consumption production.

### *Internal*

A strategic goal of the farm is not to invest too much and as a company to maintain a cost efficient bulk production. The farm does not have any specific quality and efficiency goals, instead they try to assess the whole picture and act from that. The farmer also believes that the farms in general have become more efficient over the years because of economies of scale. The farmer also has a 100% trust in the performance monitoring which he puts a lot of effort and time into. He also has a strategic goal concerning the leadership to maintain good level of communication and to be able to guide the employees. The farmer has a strategy that he follows in his decision-making, which is to develop easy routines on the farm so that anyone could be able to perform the daily operations. Therefore the entire company does not rely on one single person and the human capital is less crucial. The farmer's idea is that he should be able to operate the farm from a wheel chair in case something happens. He has also formulated four different social goals (1) it is I who choose my future (2) find a good balance between work and family (3) do not invest more then you can handle (4) make sure the business is viable every year.

### *Learning & Growth*

The farmer believes that the underlying factors that determine the success of the farm are the decisions from the leader of the firm. One of the main challenges for farm growth is to try to motivate the staff without increasing their salary. He also believes that there has been a progress in the development of new production technologies over the years. He believes that the key to success over the years in farming has been to own land and to have an

understanding of the market. The increased land prices have made short term unprofitable investments viable over the years for a lot of farmers, simply because of the increased value of the land. Inflation has eaten up the loans and increased the solidity of the farm. However, the farmer believes that this is not the case for him where all investments have to pay for themselves. The farm has formulated different goals for the different enterprises. In grain production they strive to increase the yields on the land they already possess, rather than to increase the land area. The farmer would like to secure the calf supply from the slaughterhouse and increase the weight on the heifers. The manager does not fear expansion in terms of operational matters, the only fear is the increased debt. Overall the farmer believes that the ability to pay for the agricultural product may decrease and to maintain a stable liquidity and to have the means to store grain is crucial. The farmer believes that one of the best things he has accomplished over the years was to take the step to become a farmer. The farmer has a philosophy when it comes to co-operations, if outsourcing is more suitable for the job in relation to the costs, it may be more profitable to choose outsourcing since the farmer is able to invest the time in other activities.

#### 5.2.5. Case farm 5

Case farm 5 is a large-scale crop and a hog producer.

##### *Financial*

The company has defined a financial target of reaching 8-10% profit on its turnover. The philosophy is to strive to amortize debt in accordance with the depreciation plan. The farmer perceives a fear of not being able to amortize the loans on the buildings and machinery, but has on the other hand a more restrained philosophy concerning mortgage. The strategic goal is to keep a 1/1 scenario between turnover and debt in the long run since agriculture is often characterized by large investments from year to year followed by smaller the next year. The objective is to maintain a high solidity and good profit. Each month the farmer examines the results thoroughly.

##### *Customer*

The company has a strategic plan of being open towards the customers. The farmer believes in a philosophy that one should be open and not have anything to hide. He works in close cooperation with restaurants. The restaurants demand to visit the farm, therefore one can not have anything to hide. By having part of the production in the bulk industry, one part in the restaurant business and also selling grains the farm obtains a good level of diversification which is needed for a stable company. The farmer is also open to new ventures and is in the front line of developing new products together with the slaughterhouse. In terms of CAP the farmer is not a big supporter. He does the minimum required to obtain the basic subsidies but also tries to keep an eye open if there is something that one could search. “*You have to keep an eye open for that*” (pers. com., farmer 5, 2015).

##### *Internal*

In terms of production the farmer has a strategic goal of being a part of the top 25% of the producers. The goal is determined no matter what material they receive from the

slaughterhouse in terms of piglets. The farmer also has a strategic goal of having a rational and efficient crop production. In addition, the farmer highly values the human capital where the strategy is to maintain the staff and keep them focused and motivated by offering a good salary and thereby hopefully inspire them to be efficient and independent. The employees also receive a bonus if the farm is doing well. The farm has recently conducted an intergenerational transition which the farmer believes was good both for the new generation that is able to start up early and also for the old generation, that did not have that much spirit left. The internal business processes are operated through goals that are subject to monitoring. After each batch, the results are measured and discussed with veterinarian and the feed nutrition advisor. This goal also involves a documentation that may provide feedback for the future. Another goal is to be adaptable and maintaining good operation planning. Decision-making often starts with an intuitive process but is followed by proper calculations.

#### *Learning & growth*

The farmer has maintained a cost minimization strategy by reducing costs but is still able to expand. The farmer also perceives a need of learning how to market grain in the future market. The idea is simply to decrease the risk by securing the price for the coming crop. This marketing strategy has not fully been adopted by Swedish farmers but it is a helpful tool especially for the future with higher demands from credit holders (Lund & Noell, 2002). Overall the farmer believes that he needs to be more efficient with grain marketing. An important part of the growth strategy of the farm has been to follow up what the Swedish consumers demand at the moment. The farmer also believes it is of great importance to maintain a high level of documentation. By keeping a good documentation one could do an easy performance monitoring.

#### 5.2.6. Case farm 6

Case farm 6 is a large-scale crop producer.

#### *Financial*

The financial perspective has focused on having a low cost production. Statistical data of machinery, grain production costs and the results of expenses versus revenues have been evaluated during a long time. Since the overall goal has been to deliver a surplus and a profit all investments have been made when the farmer has considered them appropriate. The level of possible investments has been evaluated when investigating the depreciation. The depreciation is set and equal to the appropriate and possible amortization plan. Economy of scale is an interesting phenomenon but it is also facing threshold effects that limit the efficiency increase. At the current stage of production and with current external business climate, the need for further expansion in the grain production is believed to add no higher utility to the farmer.

#### *Customer*

The customer perspective of case farm six is primarily focusing on grain bulk production. Although several diversifications have occurred in the business in earlier years, one of them is currently out of service and another has become a large independent company. The focus of

the farm has gone from fewer niches towards more bulk. The farmer recognizes that there are more opportunities in the market today than earlier. The farm has not used hedging and pricing contracts a lot over the years. The farmer believes in having a wide spread of different customers to receive the best price. A considerable amount of the crops has ended up on boats for export as well as delivered to local mills.

### *Internal*

The internal business processes have primarily focused on efficiency in the production. The starting position of all business activities has been to maintain and improve the fertility of the soil. A strict focus has been on decreasing all damageable impacts. The technological development of machinery and cropping systems are also believed to have returned revenues and minimized damage to the environment and the soil. *“Since the main surplus of the production of Swedish quality grains mostly end up in retail industry, our focus needs to be more on receiving a higher price for our product instead of decreasing our production cost”* (pers, com., farmer 6, 2015). In order for the farm to maintain competitive and efficient there has been a level of different cooperation with other actors and farmers over the years. The farmer believes that cooperation is the only way to expand a minor business over time. On the other hand when the farm reaches a certain level in size the utility decreases and at that point of time it might be more rational to act independently.

### *Growth & learning*

In every business there is a great problem of motivating, encouraging and maintaining experienced good staff. Modern farming requires a high workload during the intensive period of harvest and sowing, but low workload during winter. *“Teaching a new staff all the farm specific characteristics takes time and is fully implemented first after several years of field work.”* (pers, com., farmer 6, 2015). The greatest learning experience over the investigated time period is the importance of follow up production results and discuss new approaches. Lending money is easy today compared to when the farm was bought back in the 1980s. Over the past years more external capital has been needed in order to develop the farm. Almost all loans of the farm have been for investments in land and forestry. Machinery and other technical devices have a certain degree of loan finance but the aim is to borrow less. *“During my first 20 years in the business I drove old machines in order to reduce the cost of machinery, at that time it was also easier to self-finance machinery.”* (pers, com., farmer 6, 2015). The farmer believes that the process of operating a farm business has become easier after every expansion. He believes that operating 600 hectares of grains is easier than operating 300 hectares. The lesson taught on co-operating with machinery is positive. *“Owning less machinery was beneficial for the social bond between us owners and whenever there was technical wreckage on the machine we were two with a common problem.”* (pers, com., farmer 6, 2015). The farmer believes that whenever there was a different opinion about machinery the discussion among the farmers usually lead to the best result.

### 5.2.7. Case farm 7

Case farm 7 is a large-scale hog and crop producer.

#### *Financial*

At case farm seven the financial planning and control are well monitored. Each year there is a control of the past year's financial performance. The farm works according to their business plan which is updated and represented to the board of owners each year. All investments are discussed on the board and planned for the next year. The production is planned in 10 years' time and desired financial key ratios are set. The required profit margin of the farm is 10 % and has over the years reached an average of 4 %. To be able to even out the result over the years they use deposition funds to increase or decrease the year's result. Since the farm has two large production areas hogs and crop production they complement each other well in terms of diversification. The production cost of their products is well calculated and the farm has a break-even point on all of their products.

#### *Customer*

The main customer goal is to produce high quality products that the customer has demanded and is willing to pay for. At the farm mainly two products are produced, grains and hogs. Both production areas are at bulk scale but with a slight niche selection. The board continuously tries to find new channels for distribution and through the years there have been many different buyers. Another goal in the customer perspective is to try to increase the farm's involvement in the production line towards the end consumer. An example the farmer believes in is the Swedish poultry industry, which has a good control of the production line.

#### *Internal*

The internal business processes originates from the fertility of the soil. With performance reporting and planning all activities are planned for ten years ahead. This motivates and indicates the acquired level of manpower, machinery and all necessary resources needed in the production. Since the farm employs several full time employees and consists of several owners, the board continuously works with a specified business plan. Each year the business plan is complemented and updated towards the future. Decisions are made together on the board and they always plan larger investments a year ahead. Weekly meetings are set at Monday mornings in order to structure the work and keep a good communication among the employed staff. In order to motivate the employed staff and make sure that they develop farm activities, field trips and educational activities are performed on a continuous basis, both in the country and abroad. *"We have expanded since we want to and find it interesting, we have been lucky and able to increase our profits"* (pers, com., farmer 7, 2015).

#### *Growth & learning*

The growth over time and the learning experiences have raised a positive attitude towards the future among the owners. Further development of sales channels and a broader product selection are discussed as well as the increase in efficiency and production scale. A central part of the development of the farm is a continued knowledge development both at farm level and at the national research level. The success factors of the farm have been to have a positive

approach to expansion and resources of knowledge in different fields. Since there are several owners of the farm unit who work part-time outside the farm, the knowledge within different fields has been an advantage for the development of the farm. The aim has always been to have a rational unit where the capacity is pushed hard in order to stay profitable. The learnings of last year's debate about Swedish meat production in comparison to Danish and German meat, have made us realize that we have to strengthen the competitiveness. *"Since we have convinced our Swedish customers that the Swedish meat is better than the Danish or German, I believe that our competitiveness has risen"* (pers, com., farmer 7, 2015).

#### 5.2.8. Case farm 8

Case farm 8 is an large-scale ecological crop producer.

##### *Financial*

At case farm eight the farmer admits a lack of specified financial goals. The overall goal has been to develop and increase the production and withstand a reasonable profit. Before the farmer took over the farm he worked in an accounting firm. Therefore the farmer believes that the economy is fairly structured and well-organized, even due to the lack of specified goals. The mind-set focus of the farm is to be flexible and not to invest in such a scale that there would be no options for other investments. The farm also tries to decrease the depreciation period to shorter periods than average, mostly for internal higher financial goals. The investment program from CAP has been helpful concerning several of the larger investments, which have contributed with shorter depreciation periods.

##### *Customer*

The customer perspective is focused on delivering a niche product. All grain and grass seeds are ecologically produced and marketed. Most of the produced grain and seeds are sold to the cooperative Lantmännen. The farmer believes that Lantmännen offers an easy sale channel and provides a good payment system. The service level is perceived to be good and the farmer has a strong belief and involvement in the cooperative Lantmännen. Cooperation with other farmers has been developed through mutual advantages. Fields are sometimes shared in order to get vegetables into the crop rotation circle. Manure from a neighboring farm unit is also bought and traded in a similar way. The farm has also benefited from the increased demand of ecological products. The production at the farm aims for customer satisfaction, which is the decisive factor on what to grow and produce.

##### *Internal*

An internal business matter, which is highly linked with financial savings, is the ability to maintain a high staff resource during season. Most of the employees work outside the farm except for labor intense periods. The internal processes aim at following a low cost strategy in the grain and grass seeds production. Since there are numerous uninfluential parameters in growing crops and seeds such as weather conditions etc., the need for minimizing the risk is high. The farm is not connected or educated in the Lean programme "Lean Lantbruk" but tries to act accordingly to that philosophy. The technical development in agriculture has increased

the efficiency in production and the farmer believes that this is a necessary step, which has helped the expansion of tillable land.

### *Growth & learning*

The growth and learning perspective has been influenced by many factors over the investigated period. The production of ecological products has been recognized by trial and error. Ecological production is more difficult and the level of expertise and advice is less compared to conventional production. The future goal is focused on an increase in efficiency and profitability during the current circumstances. A new strategy aims to become better instead of larger. Success factors of the expansive period have been many but one large part has been the educational and working background in correlation with a large regional and national network. The exchange of information and experiences has been useful and has contributed to valuable thoughts and discussions regarding the production. Most of the decision-making has relied on instinct and beliefs but will in the future become increasingly based upon economic monitoring. Up until today no well-established decision support system has been used. The employees have played a central role in the expansion of the business. The aim is to try to involve them and push for personal development and to create a feeling of a team with a common goal.

## 5.3 Case study results

The quantitative support to the BSC findings is an analysis of the financial results of the farms through the past years. The financial monitoring provides support to the financial perspective in the BSC that the investigated farms have managed to grow and still maintain a positive economic result. The case farms are compared to an average farm from SCB (The Swedish Statistical Bureau). The average farm according to SCB is a crop producing farm that works 1600-3000 hours per year combined with an average pig producing farm that works 1600-5599 hours to get a validity comparacy to the case farms. In figure 4 the financial results for case farm 1 are displayed. Similar to Lund & Noell (2002), the turnover or the total revenue of the farm has been illustrated over the years as well as a financial measurement of the economic result before depreciation and financial costs, EBITDA (Earnings before interest, taxes, depreciation, and amortization). When studying growth and profitability there are different growth indicators that may be used for example in figure 4, sales (Gilbert *et al*, 2006; Shepherd & Wiklund, 2009; Storey, 1994). In appendix 1 all case farms independent progression is displayed. The financial development over the years is displayed for each case farm, as for example in figure 4. By examining the EBITDA one could notice that almost all of the case farms have been growing more rapidly than the average SCB farm.

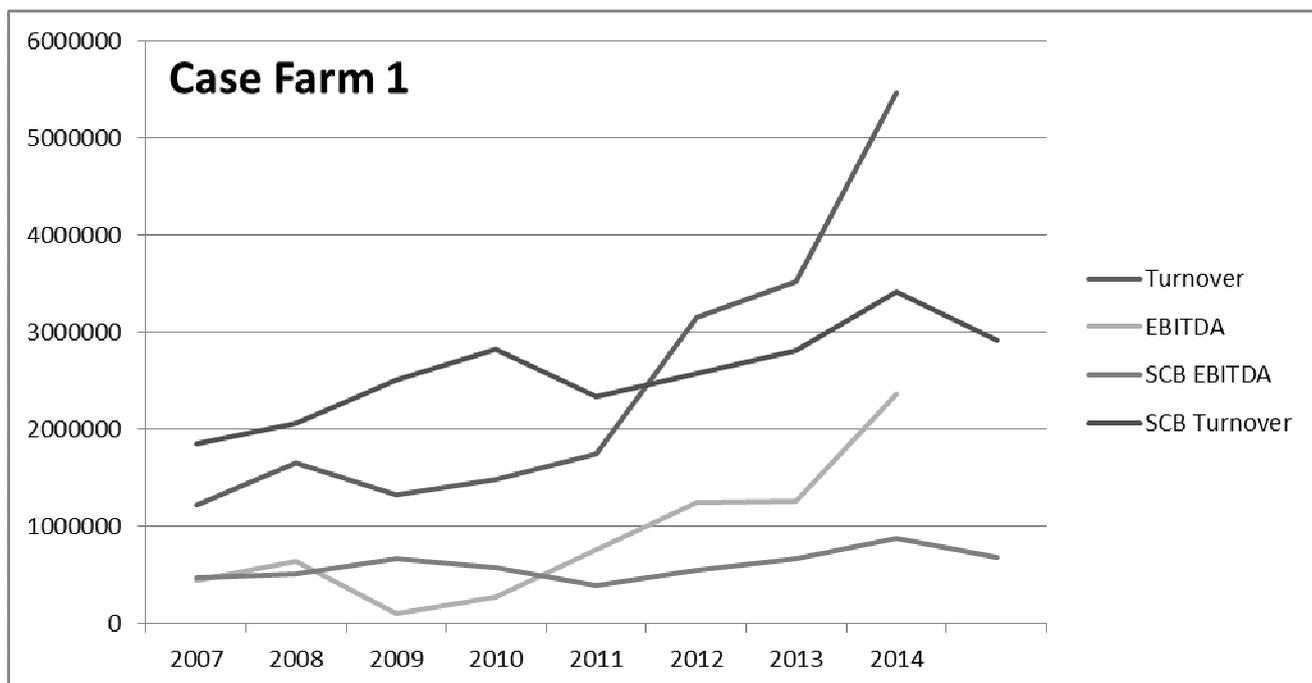


Figure 4. Financial monitoring of case farm 1

The financial results are displayed more in detail in Appendix 1. For example case farm 1, see figure 4, has expanded its turnover from 1,225,000 SEK to 5,465,000 SEK during a period of eight years providing a yearly average increase in turnover of 27%. The EBITDA has increased from 450,000 SEK to 2,362,000 SEK in the same period of time with a yearly average EBITDA increase of 66%. The farm has experienced a yearly average financial stress factor of 65%, which is considered to be highly exposed to stress. The farm has also showed an average EBITDA/Turnover factor of 33%. Some of the years the results may go down, for example in 2008 for case farm 1 as seen in figure 4. When monitoring growth over a long period of time one may pay less attention to annual variation. The focus should be on the growth rate or difference in size between two time units in this case 2007-2014 (e.g., Delmar *et al*, 2003; Zook & Allen, 1999).

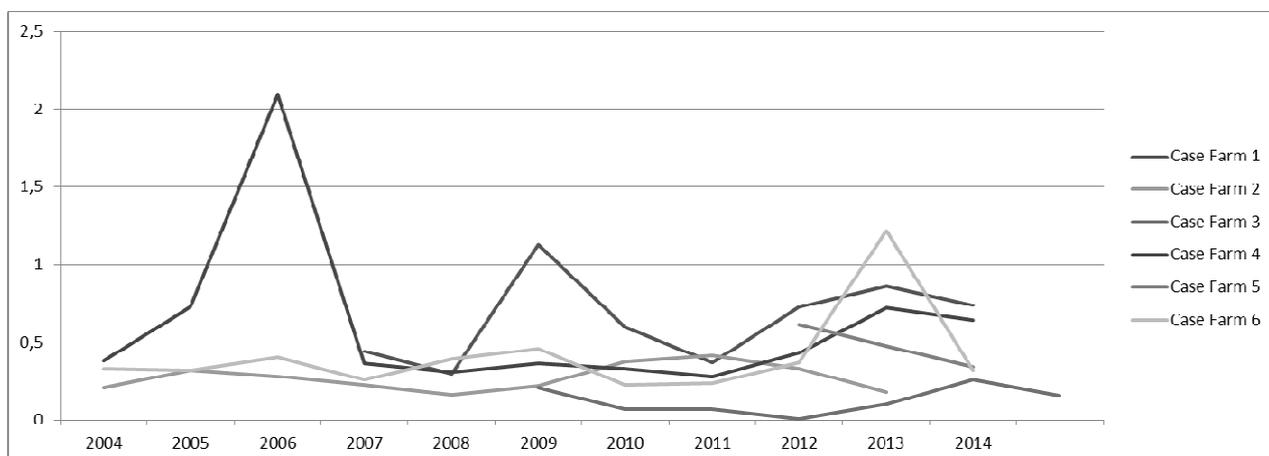


Figure 5. The stress level of the individual farms over the years

In figure 5 the financial stress level of the individual farms is illustrated over the years according to Frank’s (1998). If the stress factor is 0-25% the firm does not face any stress, if the factor is between 25-40% the firm faces possible stress, and if the factor is 40% or above the firm faces palpable stress. In figure 5 it is noticed that almost all of the case farms are exposed to substantial stress over the years.

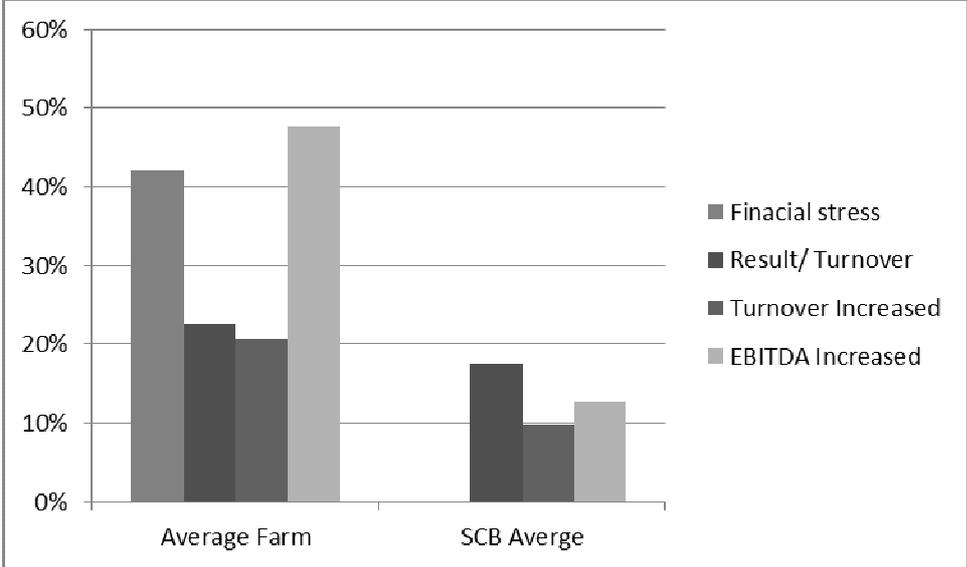


Figure 6. The composed average farm

By defining the average development of the case farms one is able to develop a composed average farm (Figure 6). The combined increase in turnover and profit can thereby be compared to the SCB average. The composed average farm has increased the turnover with 21 % every year. The composed average farm has increased the EBITDA with 48 % over the years and has had an average financial stress level of 42%. The composed average farm has had an average factor of 22% of the turnover in EBITDA.

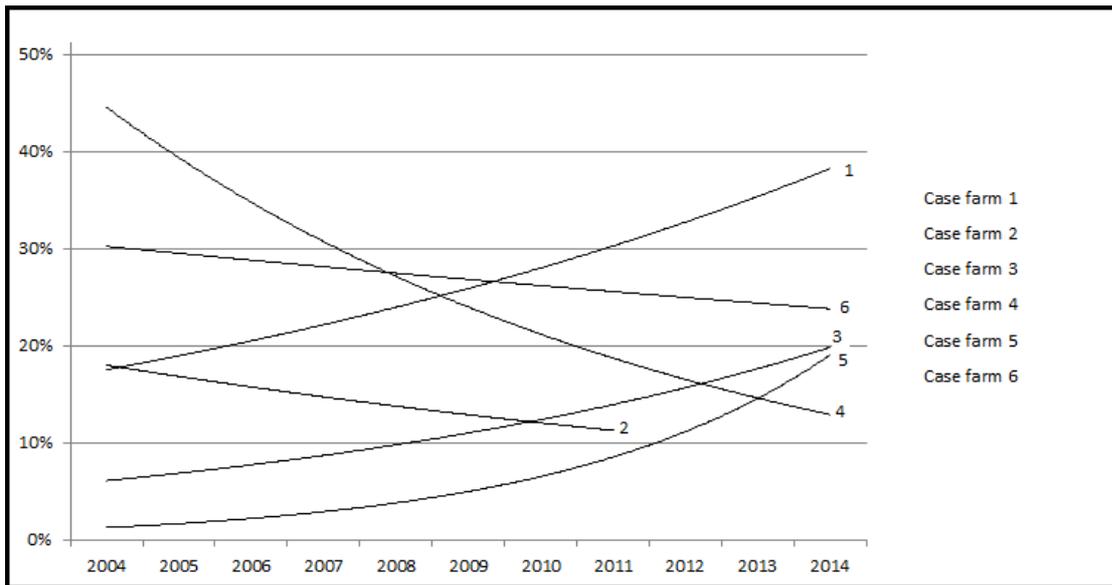


Figure 7. Trend EBITDA / Turnover for the individual case farms for each year.

In figure 7 the trend of the measure EBITDA divided with turnover is displayed. Since that ratio is changing considerably over the years a trend is displayed in figure 7 instead of a normal procentage figure. The interesting aspect is the development of the individual case farm over the years. Examining the profitability trend some of the case farms, for example case farm 4 and case farm 6, have not had a positive trend. However all the case farms increased their profits and turnover during the time period. As discussed before, to be able to determine if the case farms have been able to grow while maintaining profitability one has to examine the difference between two time units (e.g., Zook & Allen, 1999; Delmar *et al*, 2003).

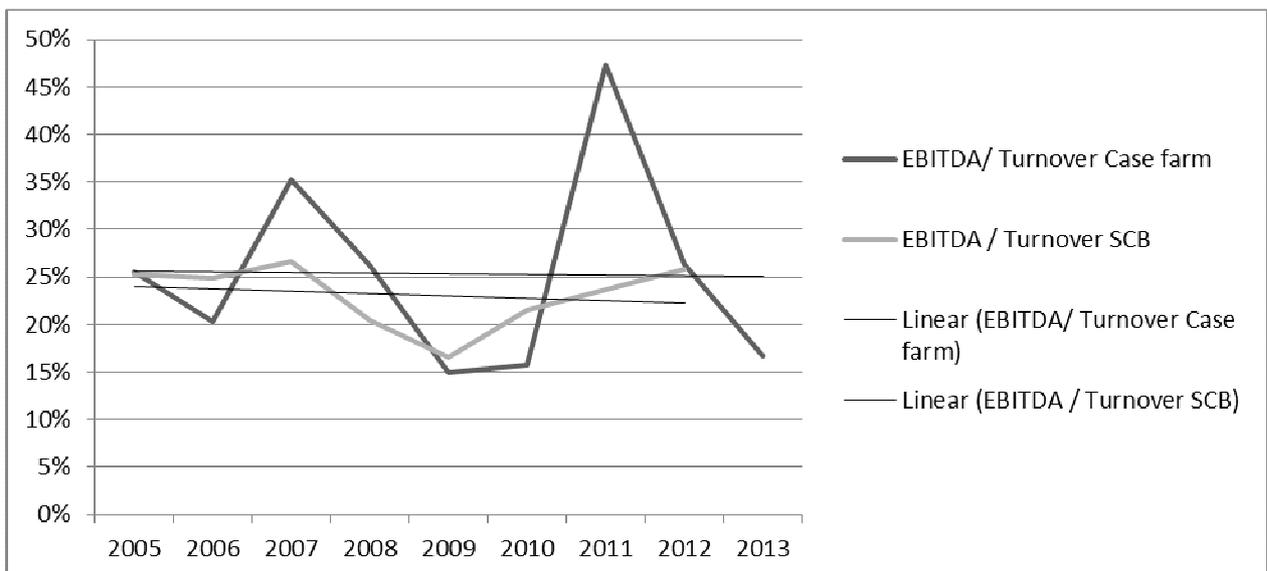


Figure 8. Trend EBITDA / Turnover SCB farm and combined average case farms over the years and SCB average over the years.

In Figure 8, the average EBTIDA/Turnover is compared to the same ratio as that of the SCB farm over the years. It is noticeable that over the years the profitability of the case farms has been following the SCB average. In figure 8, the trends are also displayed for both the case farms and for the SCB. It is noticeable that the average case farm is over the years higher than the SCB farm. The SCB decreasing over the years where the case farm is fairly stable. However as displayed in figure 8, the profitability between the case farms is shifting. In the analysis of the case farms financials, case farms 7 and 8, have been taken away, the reason is incomplete financial monitoring from the case farms.

## 6 Analysis and discussion

This chapter provides an analysis and discussion of the empirical findings and the theoretical framework. In this section a link is provided between the empirical findings, the theory of growth, strategic management and BSC.

### 6.1 Analysis & Discussion

#### 6.1.1 Research question 1: What is the similarities between the farmers from a balanced scorecard perspective?

Monitoring is an important business activity in strategic management (Hill & Jones, 1998). All case farms work with annual monitoring in order to receive feedback on their farm operations and to discover areas of improvements. In order to receive an objective evaluation, several of the farmers use external sources for business monitoring to complement their own. The shared experiences of external monitoring were positive. External monitoring in comparison with other farm units serves as a platform for identifying possible improvements and farm business grading. Lund & Noell (2002) argue that in order to observe the farm in a more objective perspective it is necessary to create a stakeholder perspective. This might be difficult for smaller farms. Due to their size the case farms of this study should be able to act under the same business management principles as other farms in the same size with investment plans and monitoring.

The BSC framework provides a holistic picture of the farms and is a better method than traditional accounting, since it links the strategy and vision to the farm operation (Kaplan & Norton, 1992). The BSC framework is found to be efficient when evaluating a farm. The different perspectives accumulate important business measures and activities, which increase the understanding of the business operations. In earlier studies the BSC has mostly been used to create a successful strategic management plan for the future. Fernandes *et al.* (2006) applies BSC on British middle size businesses to help them face the new global competitiveness in a more volatile market atmosphere. In their case study they found big improvement possibilities for the firms.

Shadbolt (2008) also argues for the usefulness of BSC since it enhances the perspectives of human resources such as innovation, continuous improvement and learning. Harling & Quail (1990) also prove the usefulness of BSC for farms. Their study was conducted at an early stage and BSC proved to be applicable on farms and not only an instrument for industry. Lund & Noell (2002) apply BSC on Danish case farms. Similar to Fernandes *et al.* (2006) they conducted a study in order to support managers of the farms for the future by applying BSC. Lund & Noell had a specific idea on how they should apply BSC on farms with a heavy focus on the vision and mission of the farm. The BSC used in this study does not take any special consideration of a strategic vision and mission for the farm as Lund & Noell do. On the contrary, Lund & Noell (2002) discuss the future use of BSC whereas this study seeks to

identify success factors in the past. They do however use the same four categories financial, internal, customer, and learning and growth in their BSC framework.

This study it is relatively straightforward to identify financial and internal perspectives, since the case farms had objective targets and strong ideas of internal and financial ratios. However, more subjective targets were identified in the learning and growth perspective as well as the customer perspective. The case farms had ideas but it was harder to formulate goals. Bigliardi & Bottani (2010) also concluded, in their case study where they applied a BSC on firms in the food supply chain that most of the firms already had a strategic plan but not necessarily in accordance with BSC. They found that most of the firms already acted within a strategic frame of thinking in all perspectives except from the learning and growth perspective. In this case study many of the farms were more focused on the internal perspective relative to the customer perspective. Some of the farmers had however increased their customer relationship by producing niche products with closer ties to the consumer.

Lund & Noell (2002) conclude in their study that the farmers should focus more on the customer perspective in addition to the the internal. Shadbolt (2003) also points out the lack of knowledge of the customer’s perspective among the farmers. Rompho (2011) also found that a limitation of the BSC is that strategy can be revised all too often and harm the business operation. External changes often tend to trigger change in strategy and this may cause confusion among the employees. This issue addresses the importance of communication among the employees of the farm. Although a common vision may exist, the need for having a clear strategy is important (Kay & Edwards, 1994).

The case study identifies a pattern of individual assessments of the future of the business where the case farms define their own strategic path. The strategy differs a lot between the farmers but one could still distinguish their individual plan. The study reveals that most of the farmers have strategic goals in all of the different perspectives, a summary of key findings are revealed in table 3. To have strategic goals has proved to be a critical element for successful farm management (Kay & Edward, 1994). These could be an underlying reason for the success of the case farms and several of the farmers have pointed out its relevance in farm business.

*Table 3. Summary of empirical findings and case farm goals in BSC format.*

	Financial	Customer	Internal	Learning & Growth
<b>Case Farm 1</b>	Pleasant life	High value niche product	Fertility of soil	Economies of scale
	Cost consciousness	Flexible customer	Technological development	Availability of manure
<b>Case Farm 2</b>	Top 25% producer	Bulk production	Technological development	Inspire employees
	Monitoring		Structural improvements	Monetary engine
<b>Case Farm 3</b>	Maximize profit	Several buyers	Structural advantage	Good relationships
	Machinery cost	Good network	Companions motivated	Integrate different culture backgrounds
<b>Case Farm 4</b>	Monitoring	Different sale strategies for different products	Cost efficient bulk production	Structured management
	Long term contracts		Economies of scale	New production technologies
<b>Case Farm 5</b>	Monitoring	Open towards customer	Top 25 % of producers	Efficient grain marketing
			Rational crop production	
<b>Case Farm 6</b>	Low cost production	Bulk production	Efficiency in production	Maintaining valuable staff
	Economies of scale	Several buyers	Fertility of soil	Monitoring of the farm
<b>Case Farm 7</b>	Financial planning	High quality products	Fertility of soil	Knowledge in different fields
	Monitoring	Bulk production	Business plan	Rational unit
<b>Case Farm 8</b>	Increase production	Niche production	Low cost strategy	Trail and errors
		Growing market	Technological development	Increased efficiency

This study does not primarily take social considerations into account when investigating the managerial process of the farmers. When conducting the interviews the farmers paid much attention to the social goals and aspects of the farming lifestyle. Since the BSC framework does not include social goals and parameters as Shadbolt (2003) states, these findings become interesting issues for discussion. Several of the farmers state that farming is a lifestyle where the difference between work and social activities is more or less non-existent. Incentives and motivational factors are often based on family history and interest from the next generation to continue farming in the future. Subjective impacts may be hard to measure but it is interesting to note that studies have proved that the financial performance of farms can vary significantly even if the farm has similar operational management and faces the same conditions, which may strengthen the importance of social consideration (Rougoor *et al*, 1997). Mäkinen *et al*, (2009) find in their study that the success in the management of the farm heavily hinges upon the subjective aspects. Their conclusion is that the subjective beliefs concerning the opportunity of the venture tend to determine the performance of the farms. Similar thoughts were discussed during the interviews with several farmers where the farmers underlined the importance of subjective assessment of the farm performance and life quality.

The study showed that the investigated case farms use strategic management thinking in terms of defining goals and formulating strategies. Continuous monitoring and allocation of resources that aim for business growth are used among the case farms. As well as keeping a cost-minimizing strategy several of the farmers also focus on finding new ways of improving the price of their products. Financial goals were heavily influenced by achieving a sustainable growth and acceptable profit. The importance of recognizing the true production costs, keeping an accurate depreciation and amortization plan was believed to be a crucial part of determining how the farm performed. Most internal business processes aimed at high effectiveness in the production and a strong commitment among the involved workforce at the farm. Also, the internal business focused much on the technological development of machinery since farming business typically involve few employees. In terms of the customer perspective, goals aimed mostly at being flexible in order to find the right marketing channels and to establish customer relationships. The strategies differed between the farms, but they all had an individual strategy that they adhered to. Some favored well established customer relationships and some operated towards a wide range of different and new customers. The tendency was that trade of livestock was further utilizing contracting devices compared to trade of crops. The learning and growth perspective discussed the need for knowledge and networks where shared experiences and agriculturally related discussions were obtainable. The motivation among staff, owners and family was discussed as a critical element in order to sustain the business. All participating farmers were motivated by the benefits of the farm growth. The contribution margins were perceived to have increased as a result of the growth process. Operating a larger firm was perceived to require an equal amount of management as a smaller farm unit. "Running a farm operation is similar to running a bike. It is easier to keep the balance with a higher speed" (pers. com., farmer 1, 2015). The participating farmers revealed a high confidence and pride in their work. Their belief was higher compared to the average Swedish farmer. The interviews showed that all farmers were practicing management with structured planning and creation of goals and strategies. The main differences among the

farms were the level of detail in formulating goals and strategies. In common they all had a vision and worked in some way towards it by their strategy.

Earlier studies show that increased management in farms influence farm performance positive. This study shows that the farmers used management extensively during their growth period and have been relatively successful. Our results are in line with earlier findings but can however not prove that management leads to increased financial performance.

### 6.1.2 Research question 2: Why does the case farm grow?

Penrose (1959) claims that the reason for growth within a firm is caused by either external unused available production funds or internal positive production opportunities. Analyzing each of the farms one may note different production funds and production opportunities in all of them. Overall the positive production funds are the easiest to identify. The difficulties are to determine the appropriate growth indicators (Weinzimmer *et al*, 1998). During the growth over the years the farms have been increasing in scale and have lowered their costs, which is an example of economies of scale. Incentives for growth to achieve the economies of scale have been emphasized among all of the participating case farms. One of the case farms is for example a co-operation between four different farms that was originally created to obtain economies of scale and cost efficiency. Several of the farms also claim that they have been achieving economies of scale through technological development such as GPS.

The positive production funds of the farms are also identified (Penrose, 1959). One example is that one of the farms has a special opportunity to receive ecological manure from a local biogas plant. The short distance is of great value for his farm and has created an important advantage. Furthermore, another important positive production opportunity is the technological development of agricultural machinery. This factor is similar among all farms and it is the adoption that may differ. However, the farmers mention that the technological developments have been helpful in increasing both efficiency and production as a result of higher precision and lower expenditures. Several of the case farms have also developed an access to special markets. Case farms 3 and 5 have special contracts for delivering premium products through unconventional sales channels. This is argued by the farmers to be an important and profitable step towards becoming an important supplier and to strengthen their position as a farmer.

Unused production funds are one of the internal reasons for growth (Gilbert *et al*, 2006, Penrose, 1959). Unused production funds are more difficult to detect given an objective external view due to the lack of knowledge of the internal daily operation. An example is case farm 2 where one of the employees was offered a share of the ownership of the livestock facility. This resulted in increased efficiency within the farm. The operation appeared similar to before but the result increased which is an example of development of new productive services. The ultimate limit to growth is the development of the managerial capabilities (Lockett *et al*, 2011). Over the years the employees develop new operation structures that

result in higher efficiency and lead to improved result when the individual is given a part of the ownership.

As described earlier, each of the farms has experienced economies of scale and positive production opportunities as an external development. These could just have been created by internal factors (Penrose, 1959). For example the increase in land growth may originate from internal indivisible production funds where as before the farm had too high machinery capacity and now experienced a higher utilization rate. The technological development that has been a part of the external opportunities could stem from internal technological development in the daily operation that has utilized unused production funds.

The participating farmers’ incentives to growth were mainly consisting of two reasons; (1) the economic benefits of large scale operations and/or (2) the personal, family interest of continuing farming into the future. Several of the farmers had positive production funds, which became better utilized when the operation expanded and thereby experiencing economies of scale and technological development. Other farmers found new ways of entering special markets or establishing new markets. This study did not intend to study social issues of expanding a farm. However the discussion with farmers contributed to leave a large footprint in this topic. The motivational drivers of the firm were heavily influenced by social goals, such as the lifestyle itself and passing on the family farm through generations.

**6.1.3 Research question 3: Have the investigated case farm maintained their profitability during their growth?**

The financial results of the case farms were evaluated and shown to be characterized by more extensive growth and increased EBITDA than the average SCB farm. The ratio EBITDA/ Turnover has been similar to the SCB farm during the period. However some of the individual farms have not been able to maintain their profitability in comparison with the average farm, for example case farm 4 & case farm 6. The financial stress level among the case farms was also palpable over the years. Earlier studies show that increased management in farms influence farm performance positive. This study shows that the farmers used management extensively during their growth period and they have been relatively successful.

*Table 4. Total average case farms and SCB farm average increase of turnover, EDBITA and factor EDITDA / turnover.*

Case farms	% Increased Turnover	% Increased EBITDA	Finacial stress	EBITDA/ Turnover
Total Average	21%	48%	42%	22%
SCB Average	10%	13%		23%

The financial analysis shows that all farms have expanded their operations in terms of turnover, with a total average of 21 %, shown in table 5. By comparing the average farm with the SCB farm one can note that the case farms have been able to grow more. Along with this increased turnover the EBITDA has increased among the case farms with an average of 48 %.

As a result of the financial growth the financial stress has been palpable among the case farms. The average financial stress factor on the case farms has been 42% over the years, which is regarded as high. The EBITDA in relation to the turnover has been similar in the SCB farm and the case farm, which indicates that the profitability has been equal.

Earlier studies show that increased management in farms influences farm performance positively (Rougoor *et al*, 1997; Jose & Crumly, 1993). This study shows that the participating farmers used management extensively during their growth period and that they have achieved growth and profitability. Our results are in accordance with earlier findings but are not able to prove that management leads to increased financial performance.

# 7 Conclusions

*“The aim of the study is through a balanced scorecard approach, identify how eight case farms formulate strategies, goals and initiatives towards expanding their businesses and profit.”*

## 7.1 Conclusions

The study shows that the case farms work with management in order to maintain profitability of their farming business while growing but the strategy varies between the case farms (see table 3). The main reasons for growth originate from either the economic benefits of a large scale production or individual and social incentives. The findings show that the farmers are characterized by a clear and well formulated strategy and vision. The farmers work with goals concerning the financial, internal, customer, and learning and growth perspectives of their farm.

The balanced scorecard has been used as evaluation tool for current and past strategic management processes within each case farm, and was perceived as a functional instrument to evaluate a number of case farms retrospectively. The difficulty with the BSC framework was to distinguish a conclusion regarding the measures, targets and initiatives of the goals for the examined case farms. The case farms also reveal a strong belief and commitment to the farm operation. The strategies originate from how to reach certain formulated goals. The empirical findings show that all farmers have a strategy which they follow, although the strategies differ from case to case. Similar to the strategic management theory, accurate monitoring and evaluation of results and processes are perceived by the farmers as a critical element for future improvements.

A financial evaluation shows that the case farms have grown and expanded their turnover during the investigated time period. Their EBITDA results show an increase of profits in the case farms. The ratio EBITDA/Turnover is similar between the SCB reference farms and the average case farm in the analysed period, which indicates that the profitability has been equal. The financial stress among the case farms is also relatively high, which implies that the financial risk has been high. As earlier studies have shown, management at farm level is a critical element in the business and management becomes significantly more important when the farm units become larger and may enhance the financial performance. The participating farmers agreed with earlier studies of the importance of applying management in practice.

## 7.2 Further research

When this thesis was conducted much attention of the farmers was directed towards the social incentives of farming business. Further research within this topic could investigate the social goals of farmers and how they affect the farm operations. Another idea would be to perform a new study on the same farms in a four to five years' time to examine if the strategy has changed and if they are still successful.

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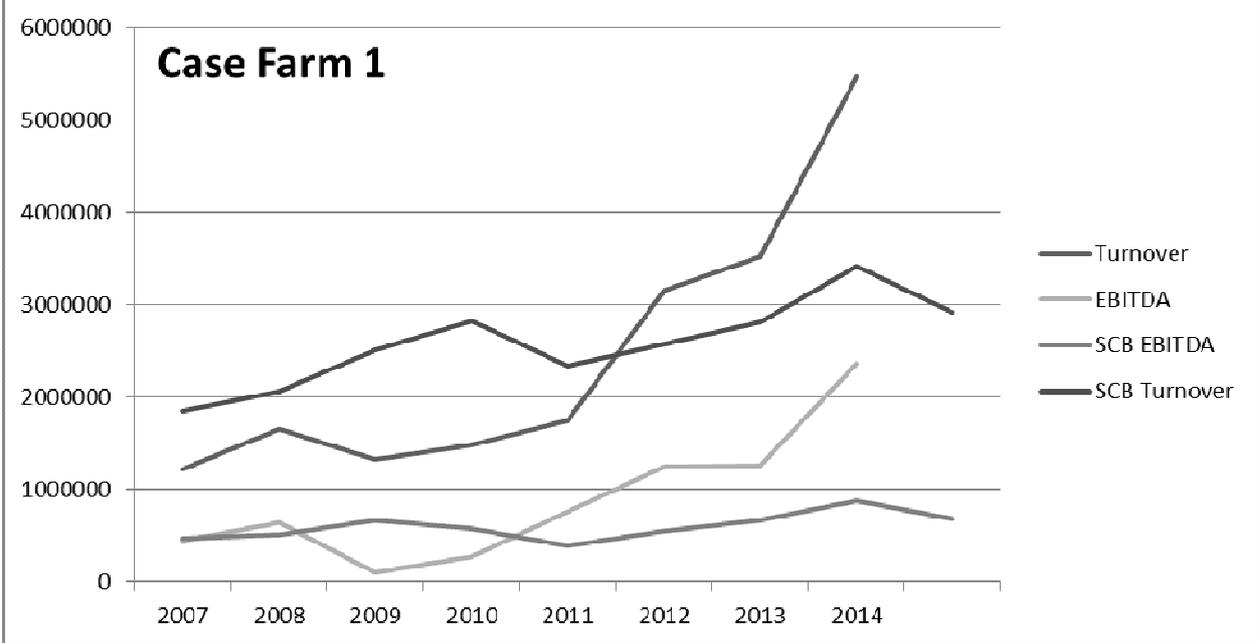
United States Department of Agriculture (USDA)

Commodity Forecasts, Agricultural Long-term Projections to 2021,

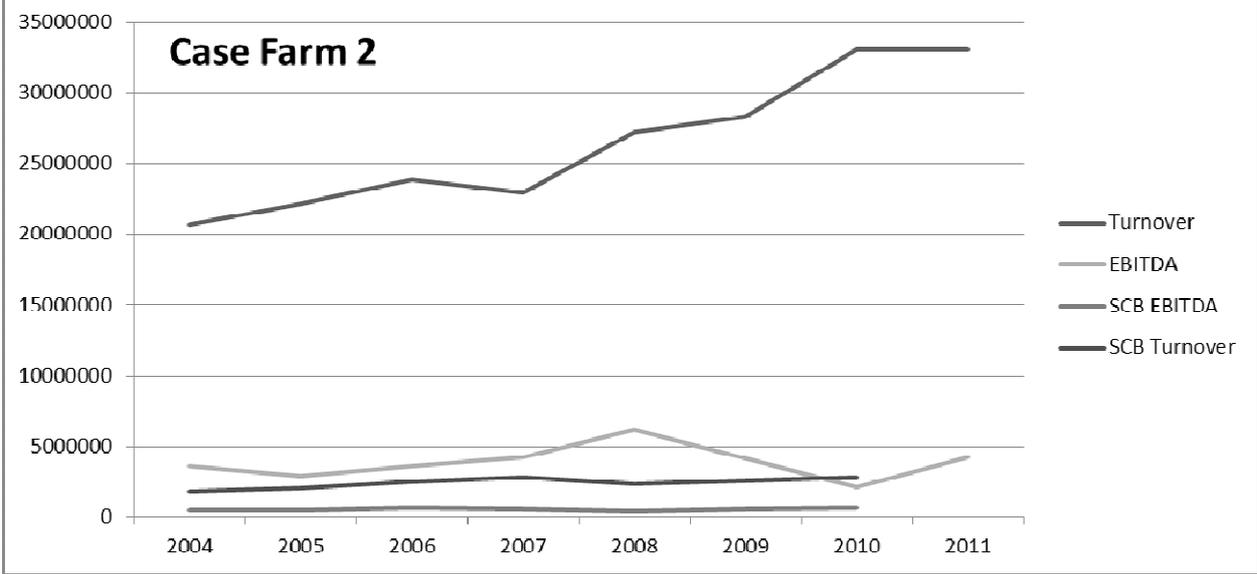
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# Appendix 1: Visualised development in case farm

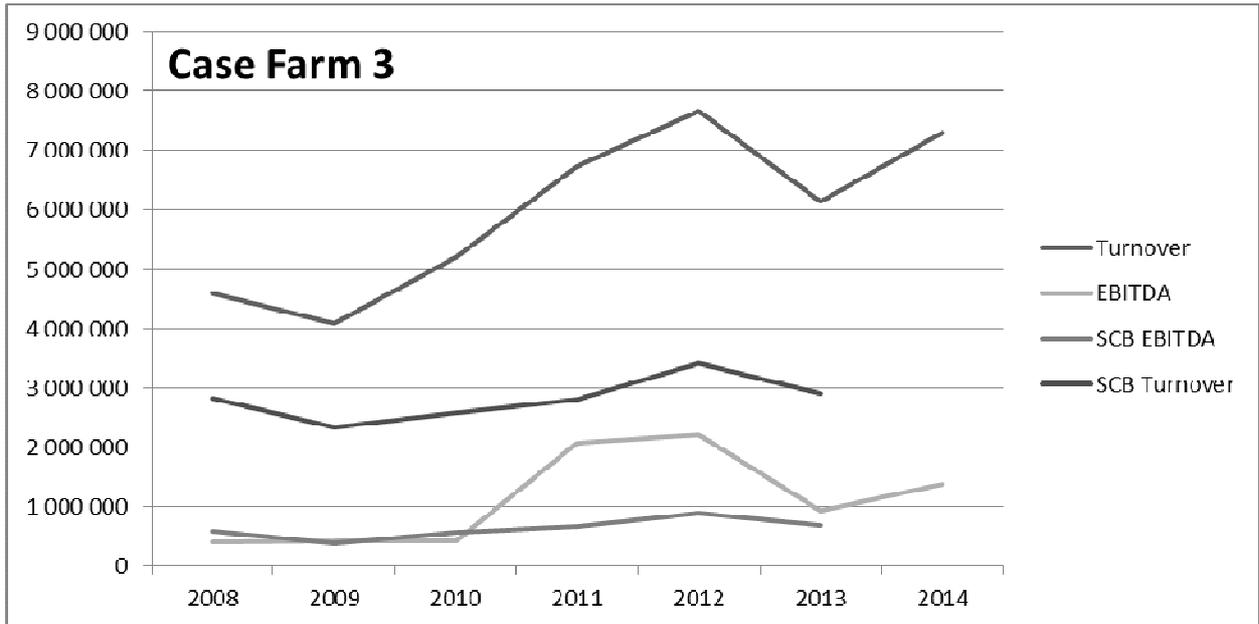
## 1, Case farm 1



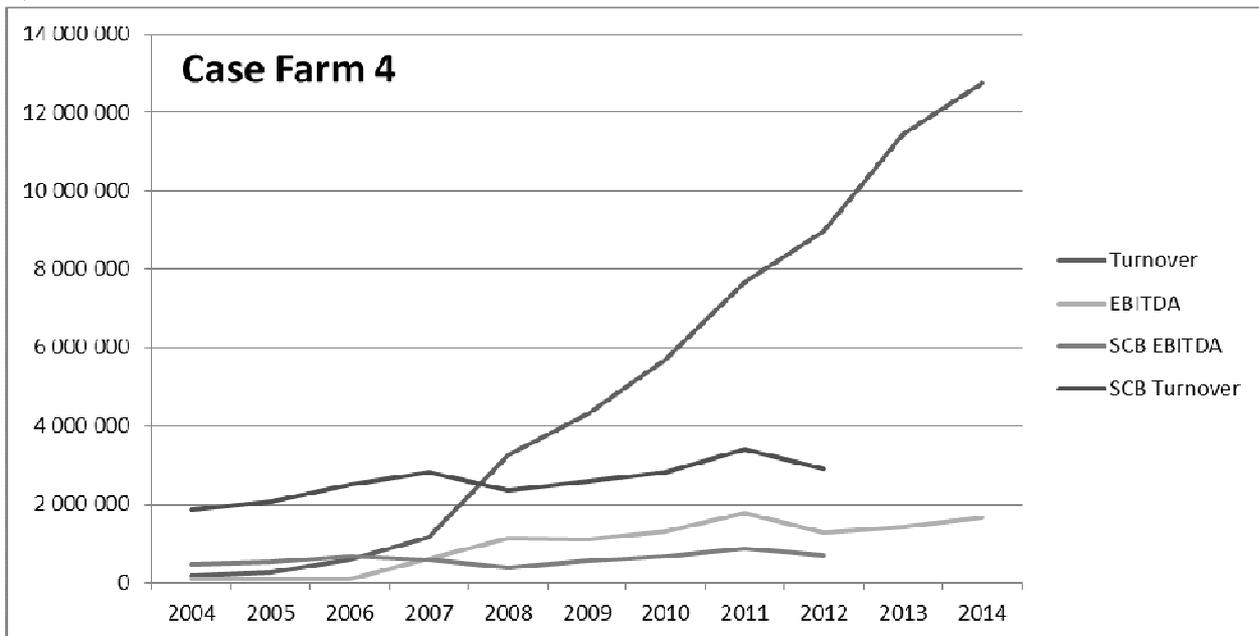
## 2, Case farm 2



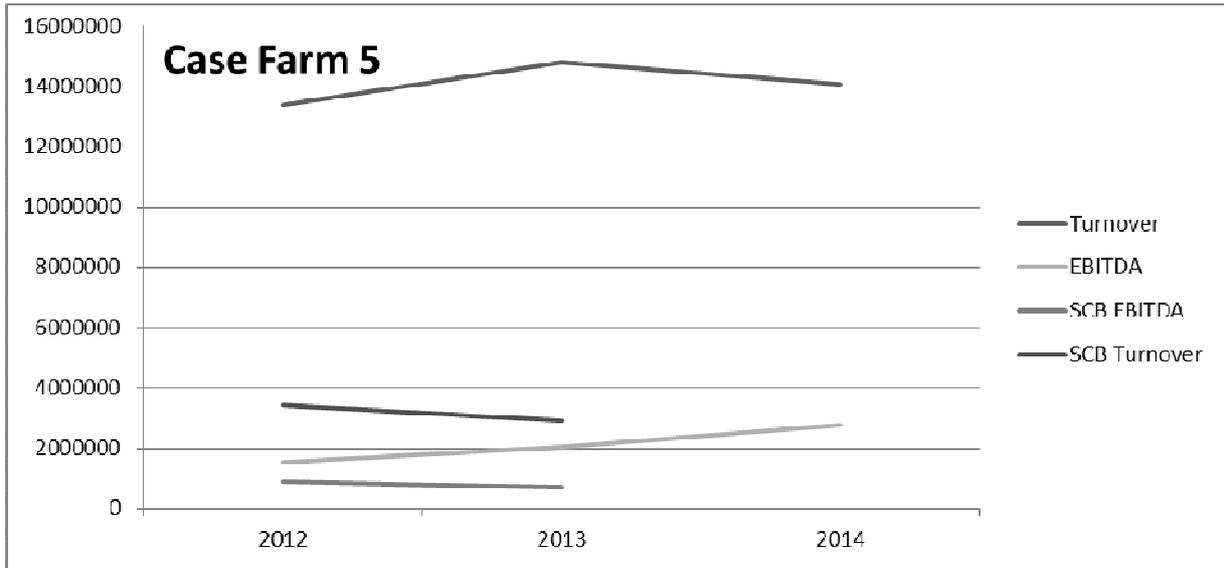
### 3, Case farm 3



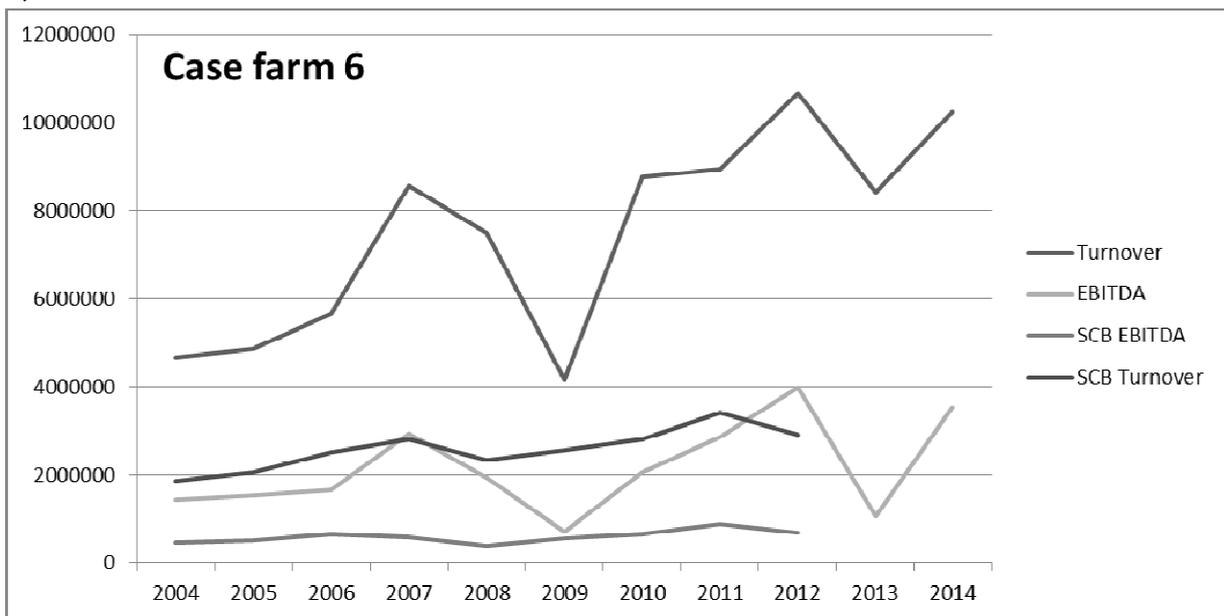
### 4, Case farm 4



#### 4, Case farm 5



#### 6, Case farm 6



Case farm 6

## Appendix 2: Economical development in case farm

Appendix 2 displays the development for all individual case farms. The first column shows which year the ratios are visualized. The second column is turnover of the year. Third column the increase in turnover in percentage terms each year. Fourth column displays the EBITDA of the year. Fifth column is the increase in the EBITDA in percentage over the year. Sixth column is the financial stress ratio of the year. Seventh column is a factor of how big percentage of the turnover the EBITDA were. In the last row there is a calculated average over the years.

### *Financial monitoring of case farm 1*

Case farm 1	Turnover	% Increase T	Result	% Increase R	Finacial stress	Factor Result/ Turnover
2007	1 225 000 kr	35%	450 000 kr	44%	44%	37%
2008	1 652 000 kr	-20%	648 000 kr	-85%	30%	39%
2009	1 328 000 kr	11%	100 000 kr	171%	113%	8%
2010	1 480 000 kr	18%	271 000 kr	179%	60%	18%
2011	1 742 000 kr	81%	756 000 kr	64%	37%	43%
2012	3 149 000 kr	12%	1 241 000 kr	2%	73%	39%
2013	3 520 000 kr	55%	1 266 000 kr	87%	86%	36%
2014	5 465 000 kr		2 362 000 kr		74%	43%
Average	2 445 125 kr	27%	886 750 kr	66%	65%	33%

### *Financial monitoring of case farm 2*

Case farm 2	Turnover	% Increase T	Result	% Increase R	Finacial stress	Factor Result/ Turnover
2004	20 708 000 kr	7%	3 576 000 kr	-18%	21%	17%
2005	22 144 000 kr	8%	2 943 000 kr	23%	32%	13%
2006	23 835 000 kr	-4%	3 617 000 kr	16%	28%	15%
2007	22 965 000 kr	19%	4 206 000 kr	48%	22%	18%
2008	27 258 000 kr	4%	6 220 000 kr	-33%	17%	23%
2009	28 329 000 kr	17%	4 190 000 kr	-50%	22%	15%
2010	33 029 000 kr	0%	2 107 000 kr	102%	37%	6%
2011	33 066 000 kr		4 254 000 kr		42%	13%
Average	26 416 750 kr	7%	3 889 125 kr	11%	31%	15%

### *Financial monitoring of case farm 3*

Case farm 3	Turnover	% Increase T	Result	% Increase R	Finacial stress	Factor Result/ Turnover
2008	4 592 118 kr	-11%	408 131 kr	1%	21%	9%
2009	4 078 012 kr	28%	412 244 kr	0%	7%	10%
2010	5 206 340 kr	29%	414 183 kr	399%	7%	8%
2011	6 735 700 kr	14%	2 068 390 kr	7%	1%	31%
2012	7 672 766 kr	-20%	2 218 618 kr	-58%	10%	29%
2013	6 140 190 kr	19%	923 449 kr	49%	26%	9%
2014	7 310 934 kr		1 373 483 kr		16%	19%
Average	5 962 294 kr	10%	1 116 928 kr	66%	12%	16%

### *Financial monitoring of case farm 4*

Case farm 4	Turnover	% Increase T	Result	% Increase R	Finacial stress	Factor Result/ Turnover
2004	166 880 kr	62%	94 841 kr	-9%	38%	57%
2005	270 000 kr	121%	86 000 kr	11%	73%	32%
2006	595 790 kr	96%	95 498 kr	532%	209%	16%
2007	1 168 275 kr	179%	603 318 kr	87%	36%	52%
2008	3 259 578 kr	32%	1 129 246 kr	-3%	31%	35%
2009	4 310 310 kr	32%	1 091 322 kr	19%	37%	25%
2010	5 693 842 kr	35%	1 298 280 kr	36%	33%	23%
2011	7 672 293 kr	17%	1 765 292 kr	-27%	28%	23%
2012	8 991 973 kr	27%	1 284 060 kr	10%	43%	14%
2013	11 449 710 kr	12%	1 411 274 kr	17%	72%	12%
2014	12 766 921 kr		1 646 400 kr		64%	13%
Average	5 122 325 kr	61%	955 048 kr	67%	55%	27%

### *Financial monitoring of case farm 4*

Case farm 5	Turnover	% Increase T	Result	% Increase R	Finacial stress	Factor Result/ Turnover
2012	13 390 000 kr	11%	1 552 000 kr	31%	61%	12%
2013	14 806 000 kr	-5%	2 040 000 kr	36%	47%	14%
2014	14 096 000 kr		2 782 000 kr		34%	20%
Average	14 097 333 kr	3%	2 124 667 kr	34%	48%	15%

### *Financial monitoring of case farm 6*

Case farm 6	Turnover	% Increase T	Result	% Increase R	Finacial stress	Factor Result/ Turnover
2004	4 669 488 kr	4%	1 451 478 kr	6%	33%	31%
2005	4 879 256 kr	16%	1 543 335 kr	9%	32%	32%
2006	5 669 605 kr	51%	1 677 000 kr	75%	40%	30%
2007	8 582 736 kr	-13%	2 933 198 kr	-34%	26%	34%
2008	7 496 098 kr	-44%	1 931 773 kr	-64%	39%	26%
2009	4 178 000 kr	110%	704 000 kr	192%	46%	17%
2010	8 780 522 kr	2%	2 053 000 kr	39%	22%	23%
2011	8 938 376 kr	19%	2 862 557 kr	40%	24%	32%
2012	10 675 183 kr	-21%	3 996 132 kr	-73%	37%	37%
2013	8 416 739 kr	22%	1 072 565 kr	231%	122%	13%
2014	10 250 000 kr		3 548 494 kr		32%	35%
Average	7 503 273 kr	15%	2 161 230 kr	42%	41%	28%

# Appendix 3: Interview with case farms

## Part 1, Background and personal information

### 1.1 The farm & The Operation

1. Which extent has the operation, Tillable land, Forest, Contract operations etc.?
2. Does the farm have any animal production? which extent?
3. Owned land, leased land, family farm? How is it distributed?
4. Does the farm operate as a limited company or not? Why, why not?
5. How many employees are there in the business? What is the level of expertise among them? What is your wishful mode, and how can you achieve it?
6. What do you think about the future of your farm and your business?
7. What do you think about the profitability and structure of Swedish agriculture in 10 years?

### 1.2 Personal

8. How long have you been running the farm / business? How long has the farm been in your family?
9. Have you, as manager of the farm any form of agricultural education and work experience?
10. What do you feel are most important to successfully operate a farm? Give three main factors.
11. What strengths and weaknesses have you as a manager and as a person? Give the three main factors for each:
12. What is it that drives and motivates you to be a farmer?
13. How does the farm/business appear in a 10 years time? Are yo still the manager?

## Part 2, Questions based on the Balanced Scorecard

### 2.1 Based on the internal process perspective (lead times, quality level).

14. What quality and efficiency goals do you have in your business?

15. What is it that influences if these can be achieved?

16. How do you measure them? (Machine costs, working hours / hectare, feed consumption, etc?)

17. What difficulties are there to develop the internal processes? (hours/ hectar, milk minus feed etc?)

18. Do you feel that you have developed your production technically? (structural rationalization?)

19. Has there been a change in the last 10 years?

20. Is there any potential to develop the technical production conditions?

21. What have been the success factors over the last 10 years, and what do you believe you missed during the last 10 years?

22. What has become better or worse? Both generally and in your own business, name three points:

23. Has the internal processes helped to grow your business? (know-how within the company, organizational and staff.)

24. How do you make decisions when it comes to internal processes? In a scale 1-10

1      2      3      4      5      6      7      8      9      10

Hunch

Follow-up of production results

25. How much do you work with performance monitoring? In a scale 1-10

1      2      3      4      5      6      7      8      9      10

26. In what branches are you working performance monitoring?

27. How much trust do you have in your own performance monitoring?

28. How important do you think it is in your business with accurate monitoring?

1      2      3      4      5      6      7      8      9      10

29. Do you feel you have over-capacity in any of your production areas? (If so are they reasonable and how do you justify them?)

30. Do you have fear of growth or do you rush on and expand in full speed? Why, why not?

31. Do you fear of growth or gas in the ground? Do you grow because you have to, or because you want to?

## **2.2 Based on customer and market perspective (customer satisfaction, market share):**

32. What are your strategic objectives from a customer and market perspective? (bulk, niche, diversification, etc.?)

33. What factors determine if it is possible to achieve the objectives? (which you can influence)

34. How do you evaluate this, do you have any special key ratio or similar? (monitoring, feedback, increased sales, etc.?)

35. Do you feel that the demand for your products has increased in recent years?

36. Have you developed the business from a customer and market perspective? New products, niche, new customers?

37. How do you think the development in customer and market perspective has been in the past 10 years (market for agricultural products)?

38. Have you been at the front or just tagged along? (active or neutral?)

39. Has the development in customer and market perspective helped the growth of your business through the years? (new customers, markets, sales, development, certification)

40. Are you at the front of testing new ways to distribute your products? (or are you awaiting etc?)

41. Is there any potential for your business to develop in that perspective?

42. Do you utilize CAPs voluntary programs?

43. What is your belief about ecological production, in customer and societal dimensions?

44. Have you changed anything in your business by being flexible and trying new market opportunities? Combined greater customer segments, customer and society, for example?

Has it changed over time?

45. If the right opportunity hasn't appeared yet, how interested are you when it comes?

46. Has your approach changed in what you produce and to whom?

### **2.3 From a financial perspective (financial position, profitability)**

47. What are your financial goals with the business? What is your rate of return? If you were to put a figure on it, what would it be? Is it before/after your pay?

48. Do you use indicators to measure and assess how your business is doing? If so, what do you use mostly?

49. What determines if you can achieve these financial goals? Answer in point form:

50. What can you affect / influence? (exclude external factors that can not be influenced)

51. What is needed to handle this?

52. How do you feel that your growth has been the past 10 years? (personal reflection, ignore the forestry)

1      2      3      4      5      6      7      8      9      10

- What is that depending on?

53. How do you feel that your profitability has been the past 10 years?

1      2      3      4      5      6      7      8      9      10

- What is that depending on?

54. How competitive do you perceive your business to be?

1      2      3      4      5      6      7      8      9      10

- What is that depending on?

55. What do you think about your company's future growth?

56. What do you think about your company's profitability in the future?

57. What do you think about your company's competitiveness in the future?

**2.4 From a learning and development perspective (innovation intensity, new products, share of sales):**

58. What are your development goals? (New production areas or knowledge?)

59. How do you plan to get there?

60. Do you have any way to measure this?

61. What are the main challenges in the operational development of leadership in your business?

62. Uncertainty in increased operational size?

63. Do you fear that the market for the product will disappear?

64. Do you experience any change in the market, opportunities or threats?

65. Is it good or does it create more uncertainty in the development of the company?

66. Transparency in the settlement prices, do you experience it as good or bad? Do you use future trading?

67. If you look back 10 years, what are you most satisfied with and what would you have done that you did not do?

68. What is crucial for where you are today? (mistakes, lessons learned, things that could be done differently)

69. What is your view of cooperation with others, would you rather do everything yourself, networking, information exchange, etc.? How important has it been for your development?

70. How do you succeed best with both growing and developing the business while still maintaining profitable?