The Balanced Scorecard (BSC) for Danish Farms – Vague Framework or Functional Instrument?

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Abstract

Nowadays agricultural firms are more often than in the past decades forced to adapt operations, plans, strategies etc. to changes and uncertainties in their legal and business environment. The Balanced Scorecard (BSC) as an approach to strategic controlling in agriculture is discussed as a answers to the growing management demands in Danish farms. A brief description of the BSC-concept, its development process as well as principle potentials and limitations is given. In a case example on a dairy farm the current Danish strategic planning framework and the BSC are compared. The need for a stricter orientation of strategic planning to external demands (customers, stakeholders) is emphasised. Necessary prerequisites for the implementation of the BSC- concept into practical farming are discussed. Finally five critical success factors to the BSC adoption by Danish farmers are identified.

Keywords: Balanced Scorecard, Strategic Management, Management Accounting, Consulting

1 Introduction

Today's agricultural firms are more often than in the past decades forced to adapt operations, plans, strategies etc. to changes and uncertainties in their legal and business environment (see e.g. Noell, 1995 & 1998; Woodburn et al., 1995). New demands to product quality, food safety and sustainable agricultural production have further motivated the interest in new management accounting approaches for the farm level. Despite many strategic management research projects carried through for Danish agriculture (see e.g. Pedersen 1986, Jeppesen 1990, Jensen et al. 1993, Lund and Larsen, 2002), there is still a lack of substantial knowledge on how

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to implement strategic management and strategic consulting on real farms. The problems related to the insufficient implementation can be realised in many ways: there is no systematic relationship between long-term and short-term plans, no coherent investment planning is ensured, no feed-back is provided to farmers, who have developed a strategic plan, and there is only a weak link between the competitive business environment and the internal farm structure.

Main purpose of the development and introduction of new management accounting methods and principles like Activity Based Costing, Target Costing, Economic Value Added, Benchmarking, Balanced Scorecard was the general finding that after the introduction of Strategic Planning in the 1970s and Strategic Management in the 1980s a lack of co-ordination between the level of strategic decision making in a firm and operational level became more and more visible. The Balanced Scorecard (BSC), developed by Kaplan and Norton (Kaplan and Norton 1992, 1996) found widespread acceptance as a major contribution to overcome "implementation gaps" that result from a lack of internal co-ordination. The implementation gap can be understood as an incomplete implementation (and development) of a firm's strategy into its business operations; that is insufficient links and feed-backs between the strategic and operational level of the firm, between short-term and long-term perspectives as well as between financial and non-financial performance measures and between stakeholder demands and internal business processes.

In the course of a stronger business orientation of the primary food production farmers, advisors, and researchers are becoming aware of similar needs for improved co-ordination of the traditional management functions. While it might look in the first glance as if farms were not suitable for the application of the BSC-concept or other new management accounting methods, it turns out that currently particularly small and medium sized firms like corporate or family farms have to make large efforts to overcome their specific "implementation gaps". Increased contract production, environmental regulations, food safety demands and a general increase in business and financial risks asking for a more professional handling of the farming business.

2 What is the Balanced Scorecard (BSC)?

2.1 Basic Concept

In Kaplan und Norton's (1992, 1996) original concept the BSC is intended to fill the gap between the development of a strategy and its realisation. As definition and specification of strategy serves Porter's (1998 & 1980, 1985) concept of competitive strategy. The BSC-framework supports and links four "critical" management processes, that is (1) clarify and translate vision and strategy, (2) communicate and link strategic objectives and measures, (3) plan, set targets, and align strategic initiatives and (4) enhance strategic feedback and learning. Furthermore, the business dimension of the strategy formulation is composed of external perspectives (shareholder and customer) and internal perspectives (internal processes and learn-

ing/development/growth). The "balanced" consideration of critical issues in the management and business dimension is (at least theoretically) assured by its combination with a controlling (=feed-forward control) dimension, that covers (a) financial and non-financial performance indicators, (b) short-term and long-term indicators and (c) lagging and leading indicators. Finally, Kaplan and Norton emphasise the strict hierarchical order of the selected performance measures, the existence of causal relationships among them as well as their measurability and relevance. The main intention of the BSC is to overcome the shortcomings of purely financial and economic performance measures, not to overcome the final goal of profit maximisation. The maximal sustainable profit is in the long-term objective of the application of the BSC-concept, and the relevance of all other measures and perspectives is determined by their direct and indirect relation to the firms profitability.

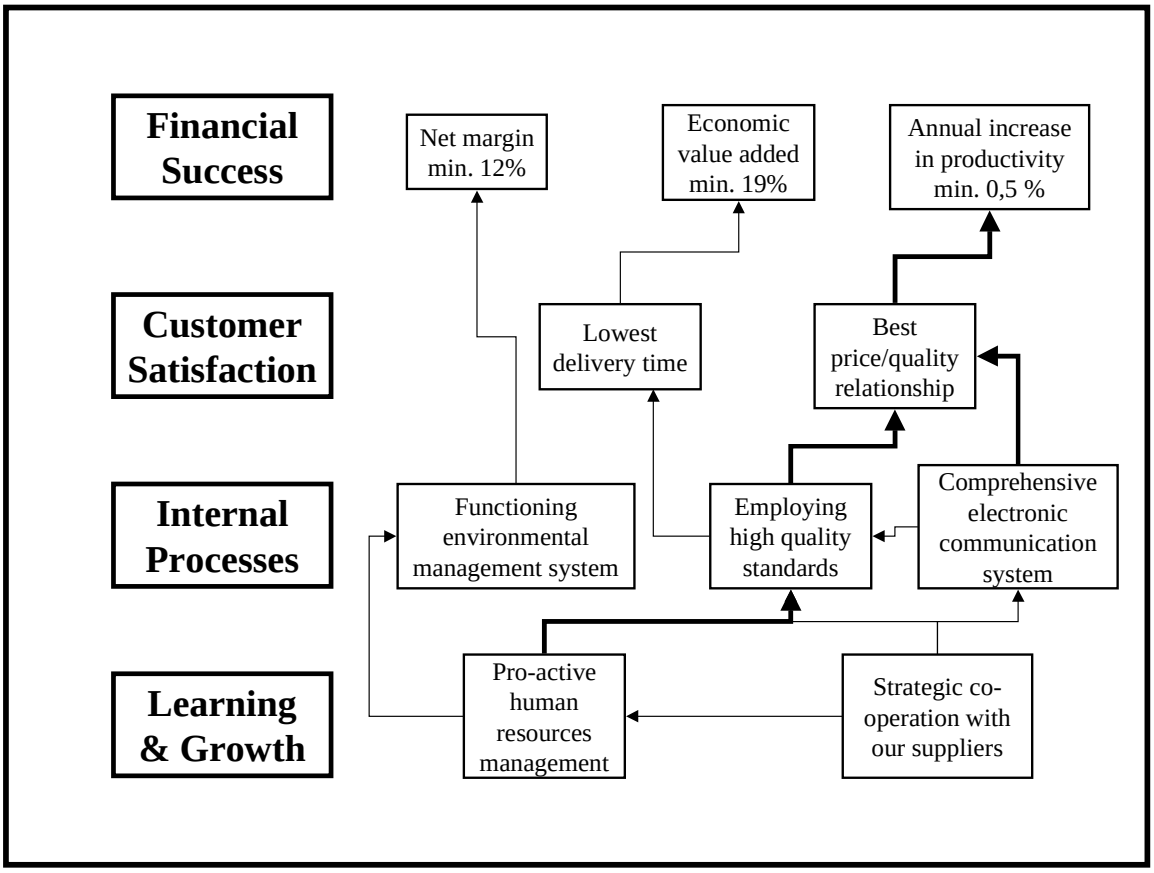

Figure. 1 Hierarchical system of strategic goals in the BSC (following Ahn, 2001, p. 448; Sim and Koh, 2001, p.21)

Figure 1 illustrates the basic properties of a BSC in Kaplan and Norton's original concept. The bold arrows indicate a typical unidirectional cause-effect chain across the variables of different hierarchical levels. For operational use the network of strategic goals had to be translated into a network of measurable indicators. Again, the network of goals (and subsequently measures) had to be derived from the overall firm's strategy.

2.2 Steps in the Development of a BSC

As the BSC-concept is intended to bridge the gap between a firm's strategy and its daily operations, the development of a BSC has to be rooted in the strategic management area and has to result in a practically usable management tool. Ahn (2001) describes the phases of the development process as he has applied it in the development of a BSC for ABB industries as follows:

1. **Starting the development process:** *Identifying strategic goals.* Kaplan and Norton's four perspectives (financial, customer, internal processes, learning and growth) are applied to the process of goal identification or classification, respectively.
2. **Structuring the BSC:** *Modelling chains of cause and effect.* Identification of causal links between the previously identified strategic goals. This phase results in a BSC in an intermediate stage as presented in figure 1.
3. **The qualitative BSC:** *Defining measures for quantifying achievement of goals.* Those measures should quantify the benefit of goal achievement, have a motivating effect and cover various aspects of a goal.
4. **The quantitative BSC:** *Setting milestones and targets for the measures.* Here the target is to describe the final goal level to be achieved within the given strategic planning rhythm (3 years in the case of ABB), and from this milestones (=stage levels) for each year have to be derived. The analysis of a considerable amount of data will be necessary in this phase.
5. **Implementing the BSC:** *Developing strategic programs for achieving the goals.* For each set of goals one or several strategic programs should be developed.

Step by step the qualitative, long-term and broad scopes of the strategic management level are turned into a quantitative, short-term and narrow system of performance measures. Each development step actually produces a BSC with a different degree of specification. Much of the controversy about the BSC can be traced back to a misunderstanding of its multi-layered structure. In many cases the first time specification of a BSC will be based on an already existing strategic management framework. Then the first two or even three steps of the development will for practical reasons be substituted by an intermediate development step. In this step the existing strategic management structure has to be translated into the perspectives of the Balanced Scorecard (see e.g. figure 2).

2.3 Potentials and Limitations of the BSC-Concept

The BSC is by far not an easy-to-develop management accounting tool. A number of authors and even the original proposers of the concept have pointed out that the BSC needs significant adaptations and modifications for its successful use in the business reality. Frequently repeated points of criticism (Nörreklit 2001) are the following:

- The assumption of *cause-effect relationships* across the four major perspectives is problematic. More often the relationships among the performance variables are ambivalent (e.g. the relation between customer satisfaction and financial success), statistical (covariance, but no causal relationships), purely logical (e.g. relationships developed from neoclassical reasonning) or simlpy not existing.
- The assumption of a *hierarchical relationships* among the four major perspectives is questioned. For example might management development lead to increased profits, but sufficient profits are needed to finance management development. Consequentially, instead *interdependent* rather then *unidirectional* relationships among the measurement variables are suggested.
- The *time-dimension* is neglected in the BSC due to the assumption of hierarchical cause-effect relationships. The original approach is often considered static instead of dynamic and as such unsuitable for strategic management.
- The strict focus of the BSC on Porter's (1980, 1985) concept of competitive strategy, where the *firm's environment determines the choice of strategy* (cost leadership or differentiation) and the firm adapts its core competence to the strategy is generally rejected. The BSC is assumed to be as well applicable to a strategy development that takes the core competence of a firm as starting point. This fact is particularly important for agricultural firms, because they are generally quite restricted in utilisation and transformation of their resources.
- The restriction to a number of *four* in the BSC's *perspectives* as well as to their *scope* is regularly criticised. It should be taken into account that finally the purpose of the BSC is to satisfy all relevant stakeholders of a firm in a "balanced" way. Thus e.g. the "financial" perspective takes into account the ownership side of a firm, the "customer" perspective takes demands to product/service quality into account and so on. If necessary and reasonable the type of stakeholder and thus the customer perspectives should be adapted accordingly.

Th above list could be further continued. For a comprehensive discussion of the strengths and weaknesses of the BSC-concept see among others Olve and Sjöstrand (2002), Jones and Sasser (1995). Nevertheless it should also be mentioned that the criticism is partially misleading. On the one hand, performance and scope of the original BSC-concept are often overtaxed and on the other hand it is not taken into account that any BSC applied to a real firm is an "intermediate-" or "end-product" of a comprehensive and repeated process of strategy-development, -implementation and -controlling. Furthermore, the different conceptual levels of the BSC are often neglected, that is the basic concept is described as vague and unclear, while the nature of an implemented BSC as an management accounting tool is not considered and vice versa. Recent findings of more empirically oriented papers like those from Olve and Sjöstrand (2002), Andersson (2002), Ahn (2001), Kaplan and Norton (2001), Sim and Koh (2001), Hoque and James (2000) a.o. in-

dicate that the process of development of a BSC and its embedded in the strategic management process.

3 Strategic Planning and the Balanced Scorecard in Danish Agriculture

3.1 Current Strategic Planning Framework

As a starting point for the construction of a BSC for a farm the Danish strategic planning approach for agricultural firms has been chosen. This approach was originally developed in the eighties as described in Pedersen (1987) and has since then been further developed, see e.g. Jensen et al. (1993) and Lund and Larsen (2002). The approach consists of five basic elements. The **vision** is a qualitative statement describing the kind of life the farm family wishes to realize, while the **mission** should describe the needs demanded by the society that the agricultural firm is expected to fulfil. The first sub-strategy is the **financial strategy**, where some generic objectives of the strategy could be consolidation, use of own capital for consumption, taxation policy and self-financing contra external borrowing of new investments. Another sub-strategy is the **activity strategy**, where some typically generic objectives in farming are specialization or diversification. Economics of scale and cost minimisation are the normal economic drivers behind a specialisation strategy, whereas adaptation of non-farm activities such as tourism or aquaculture could be agricultural examples of diversification. The third sub-strategy constitutes of the **capacity strategy**, where the generic objectives of the strategy typically are depreciation, maintenance or expansion. Usually young farmers wish to expand, while older farmers often decide to depreciate their production capacity. The fourth sub-strategy is the **organisational strategy**, where the generic objectives are related to the choice of organisation of the firm, including the delegation of tasks and responsibilities, choice of information systems and human resource development.

The main challenge of the development of the BSC is to translate the system of these four sub-strategies into a set of interrelated measures, targets and initiatives in the context of the four perspectives of the BSC as indicated in figure 2. In the following chapter this transformation will be illustrated by the use of a case example from dairy production. As there is no practical experiences with the development of Balanced Scorecards in Danish agriculture yet, and as the autors have not available any realistic agricultural examples from other countries, the case example will necessarily be a hypothetical one. Thus, the example will serve the purpose of demonstrating the basic properties of BSCs for farms.

3.2 Linking a Farm Strategy and BSC: the (Hypothetical) Case of a Dairy Farm

The dairy farm used as a case is assumed to be owned by a younger, married farmer. The farmer and his wife have not yet any children and the wife is working

outside the farm. About 80 per cent of the farm income comes from **milk production** and the herd size is assumed to be 145 milking cows. The breed is Holstein and the milk yield is 7.500 kg milk per cow. The land size is 130 ha of medium soil quality, which is mainly used for cereals, grazing and forage. There are modern machines, whereas the buildings and the milking equipment are rather old and thus labour consuming. A 21 years old man is employed full-time as farm worker. **Debt ratio** is 95 per cent as there in the last two years have been seriously disease problems in the herd.

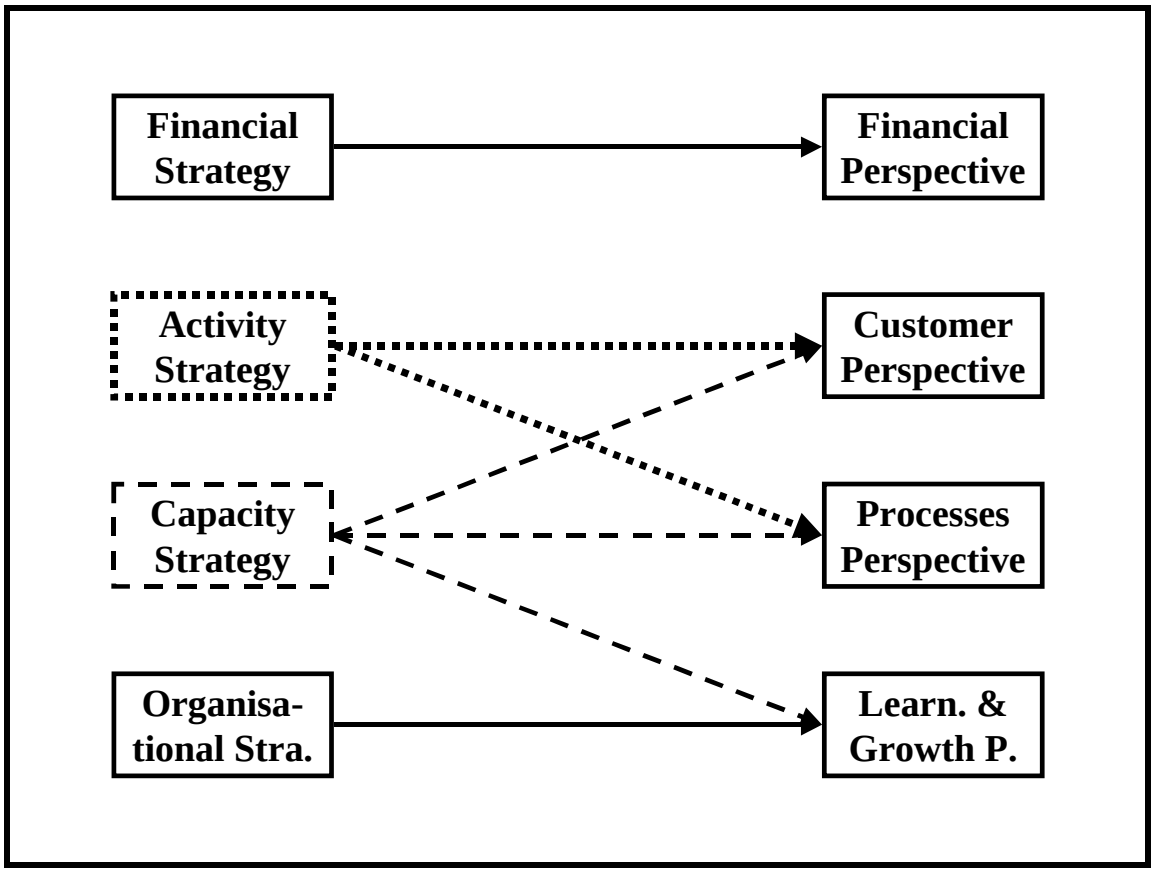

Figure 2. Links between the idealised Danish strategic planning model for farms and the perspectives of the Balanced Scorecard concept.

The vision and mission statement of the farm family's business was formulated by the farmer and his wife before the bought their farm three years ago. The **vision** (see e.g. Noell, 1994) of the family includes a farm business with employees, good conditions for family life, children, the wife being involved in the management of the farm and time for involvement in the local community. The **mission** of the business is to deliver healthy and high quality products, to carry out environmental sound production, creating job opportunities for the local community and to guarantee attractive payments to all "share- and bondholders". Based on a recently performed **SWOT-analysis** a number of strategic issues where identified: (1) clarification of the future development of the farm in light of the vision and mission, op-

portunities and threats in the environment and the strong and weak points in the business, (2) increased productivity and flexibility in relation to uncertainty and changes in external factors, (3) development of a better investment planning and improved capacity utilization, (4) a sufficient self-financing of investments and a more sustainable economy, (5) development of the farmer's competences as a farm business manager.

Regarding the **economic performance** the following three main problems were identified (1) a benchmarking revealed that the current productivity in milk production was to low compared to similar dairy producers, and (2) no targets for the profitability and priorities of new investments have been formulated, and finally (3) there are no systematic links between short-run and long-run financial planning. In the process of developing a new strategy for the farm emphasises was especially put on the relationship between short-term and long-term financial goals and their relationships to the sub-strategies in order to improve the future income generation.

3.3 Relating the Structured Strategic Plan to the BSC-Concept

Figure 3 shows a simplified version of the result of these efforts. In order to increase the productivity three important processes have been identified in the activity strategy: 1) The cow replacement policy; 2) feed utilisation; and 3) the yield of milk. Intensive work was carried out to reveal the **cause-and-effects** relations between these and other strategic issues. For instances, there are a close causal relationships between the choice of replacement policy, i.e. replacement of old cow with heifers, and the expected milk yield. As another example there are causal links between the utilisation of feed and the facilities and equipment for storage of forage, which are part of the capacity strategy. In formulating the capacity strategy a distinction between existing investments and new investments have been made. The main problems with existing investments is the lack of utilisation, whereas the instalment of improved planning routines was seen as most important with respect to new investments. The preparation of investment plans, capital budgeting and systematic feedback procedures were seen as necessary parts of the future investment planning on the farm.

The fulfilment of the objectives in the activity and capacity strategies require specific organisational changes in order to increase the future farm income. As shown in figure 3 these initiatives include 1) employment of higher skilled labour, 2) adaptation of better information systems and 3) supplementary education in financial management. It is here hypothesized that a higher skilled labour force together with access to better and more timely information will increase labour productivity. At the same time it is expected that the a new information system might provide the relevant information for investment planning, which the farmer should learn to appreciate by further education in financial management.

Farming is characterized with a rather long production time, because there is a long time span from operational decisions are taken until the financial results will be shown. For instance is there more than two years from a heifer calve is born and it can start to produce milk and when it comes to investments in new building facili-

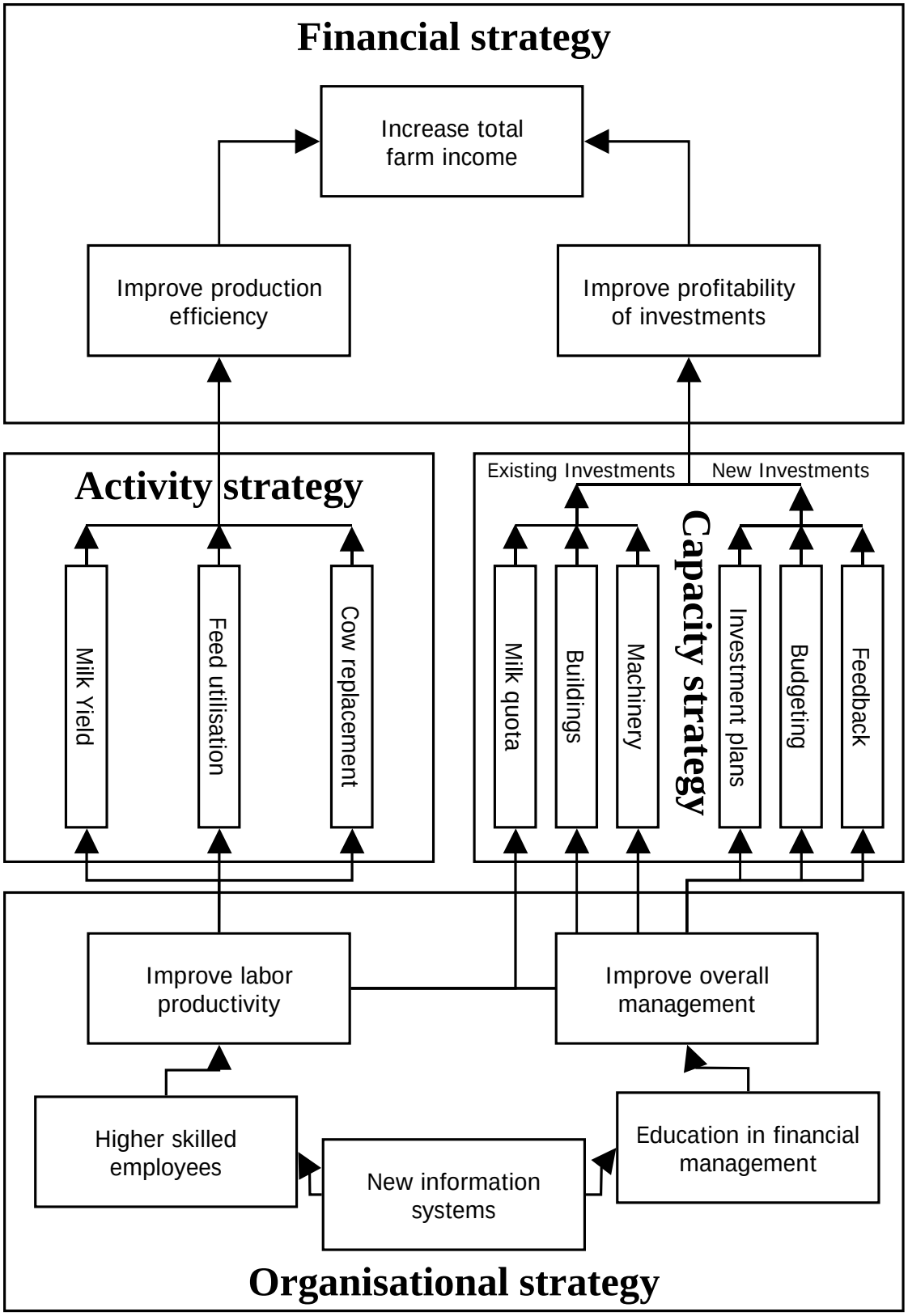

Figure. 3 The structured strategic plan for the hypothetical Danish dairy farm

ties the time span could be 20 years or more. Under such circumstances it is especially important that a strategic plan as shown in figure 3 is supplemented with a mixture of leading and lagging measures to evaluate the business performance and motivate the staff employed in the farm. Table 1 summarises the leading and lagging indicators for our farm case example.

Table. 1 Sub-strategies, strategic objectives, indicators and their correspondence to the perspectives of the Balanced Scorecard concept.

Sub-Strategies and Strategic Objectives	Measures		Corresponding Perspective of BSC-Concept
	Lag-indicators	**Lead indicators**	
Financial			
F1: Increase total income	Income statement	Cost drivers	*Financial*
F2: Improve production efficiency	Gross margin per cow		*Financial*
F3: Improve profitability of investments	ROI	Investment portfolio	*Financial*
Activities			
A1: Better health status	Replacement rate	Number of farm visits of dairy advisors	*Customer*
A2: Improve milk yield	Milk yield per cow	Hygiene and sanitary standards	*Internal Processes*
A3: Improve utilization of feed	Feed units per cow		*Internal Processes*
A4: Higher yield of forage	Feed units pr. ha	Crop rotation	*Internal Processes*
A5: Less storage loss of forage		Investments in new storage facilities	*Internal Processes*
Capacity			
C1: Better utilization of milk quota	Gross margin pr. kg quota	Replacement of dairy stock	*Internal Processes*
C2: Improve utilization of buildings	Percent of stalls idle	Purchase of more milk quota	*Internal Processes*
C3: Better utilization of machinery	Machinery costs pr. Ha	Machinery contracting work	*Internal Processes*
C4: Reduce the use of labour	Hours pr. milking cow	Investments in labour saving installations	*Internal Processes*
Organisation			
O1: Hiring of a more skilled herd manager	Gross margin pr. Wage dollar	Targets for practical and theoretical education	*Learning & Growth*
O2: Use of better information systems	Costs to bookkeeping and production control	Sharing of information	*Learning & Growth*
O3: Development of managerial competences	Numbers of course days	Available time for overall management	*Learning & Growth*

The adopted lagging measures such as i.e. the income statement, the gross margin per cow and per kg, machinery costs per ha and hours used per cow are often ge-

neric in the sense that they are the same for many agricultural producers. Many of these can be found in traditional production and accounting reports. The leading indicators, or the performance drivers, are however often unique for the individual firms as it is these indicators that should drive the firm towards excellent results. In farming most of the performance drivers will be located in the activity, capacity and/or organisational strategy. Examples of assumed leading indicators in our case example are use of cost drivers, the implementation of new hygiene and sanitary standards and sharing of information.

3.4 Compatibility of Strategic Plan with BSC

The results from table 1 indicate some important similarities and distinctions between the existing strategic planning model for Danish agriculture and Kaplan and Norton's Balanced Scorecard concept:

- "Financial strategy" and "financial perspective" largely match each other. The long tradition of financial performance measurement in agriculture would make any other result quite surprising.
- "Activity strategy" partially corresponds to the "customer perspective", but mainly to the "internal processes perspective". With a strict focus on production the activity strategy assumes a relatively narrow perspective of short-term operations.
- On the one hand "capacity strategy" fully corresponds to the "internal processes perspective", but on the other hand it almost exclusively refers to investment activities in production.
- While "organisation strategy" and "learning and growth" perspective largely match each other the organisation strategy in this example covers a much shorter time horizon than the learning and growth perspective in the original BSC-concept would suggest.
- The cause effect relationships in the structured strategic plan (see figure 3) could only partially be transferred to a Balanced Scorecard, mainly because an extension of the "customer perspective" would imply new relations among existing indicators and possibly make the introduction of new indicators necessary.

Seen from a BSC standpoint the "customer perspective" is only implicitly taken into consideration in the existing strategic planning concept. The much discussed development of agriculture from *production driven markets* to *market driven production* has obviously not yet had a fundamental impact on the farms' management structure. The focus is mainly on the "internal processes perspective". Furthermore, the "learning and growth perspective" is undervalued. These results are not unexpected because agriculture traditionally has a very strong orientation of all its structure towards production, while the market or general outside orientation is much weaker. Not at least for this reason the results show that the implementation of the (original) BSC concept into Danish agriculture has to be accompanied by a general shift in the business orientation. Finally, it must be concluded that the differences be-

tween the traditional strategic management framework of Danish agriculture are much bigger than their technical similarities seem to indicate initially.

4 Implementation of the BSC into Danish Agriculture: The Role of Research and Consulting

4.1 Importance of Cooperation among Institutions

Previous research projects (Henneberg et al. 1991, Henneberg 1995) have confirmed that there is a need for a more holistic consulting approach to improve the efficiency and long-run profitability of Danish dairy firms. Although many initiatives have been taken during the last decades, holistic consulting methods are still not generally implemented in the Danish advisory service. In order to introduce business consulting based on the principles of BSC's to farmers, there is a need to develop:

- general *procedures and methods*, that is interactive tools for the construction of BSC's, whereby the individual farmer's vision, mission and strategy can be transformed into objectives, measures and initiatives that may guide the future decision-making and action-taken in the specific firm,
- *feedback processes*, where performance data is collected about the strategy that makes it possible to test the hypotheses about the relationships between strategic objectives, initiatives and actions, and
- *consulting processes* that promote learning from the performance data and makes it possible to adjust the strategy to new questions and conditions that may emerge.

Furthermore university and research institutions could enhance the economic efficiency of the BSC-implementation by developing **Standard-BSCs** for different types and sizes of farms and different lifecycle-stages of farmers. Those standardised BSCs could than be further specified and customised to the needs of practical farmers by the advisory service and subsequently adapted to single farms by local advisors. To fulfil the above requirements there is a need for a close cooperation between university, research institutions and the advisory service. One important reason is that consultants in the existing advisory service do not have the necessary competences and methods to give farmers' feedback on their strategy and to help them test the assumptions and expectations that their strategy is based on.

4.2 Importance of Double-Loop Learning

Most consultants have only been trained in single-loop learning, where realised results are compared and evaluated according to some a priori formulated plans. This feedback method is functioning well as long as the farmer and/or his consultants have complete information about the objectives and the required actions to reach the objectives. It is a single-loop feedback process, where the objectives is already

determined and will not be changed. Deviations from the planned results are not making the farmer ask, whether the planned results are still wanted. Furthermore, by this method the farmer is not asking, whether the adopted strategy to realize the planned objectives are still suitable. Deviations from the planned path are regarded as random errors and all energy is focused on getting the firm back to the planned course. However, overall farm strategies cannot any more be regarded as stabile or linear in such a way. Today, the farmer needs feedbacks on more complicated strategies and more turbulent environments. A given farm strategy may – although it is developed by the best intentions and by use of the best available information – no longer be suitable or valid under the existing conditions. Consultants should therefore have the ability to promote double-loop learning, which is the learning that happens when farm managers are questioning the underlying assumptions and make reflections if the adopted strategy is still in line with the evidence, observations and experiences that they have today. Sometimes, farmers need to formulate new strategies to utilize the opportunities and avoid threats that could not be predicted at the time the original strategy was formulated. It should be the responsibility of research institutions (Lund, 1997 & 1998). For the implementation of the BSC it can be directly concluded, that BSCs suitable for practical purposes have to be flexible and adaptable. Consequentially the Balanced Scorecards for Danish farms should have to consist of two parts: a less specified **development part** that allows and stimulates double-loop learning and a highly specified **operational part** that is derived annually from the development part and allows single loop learning.

4.3 Importance of Participation

Furthermore, past experience indicates that it has been difficult to implement integrated solutions, when different consultants from the advisory organisation are involved at the same time. If consultants assist in the development and implementation of BSCs to practical farmers, there will be a need for teambuilding and new organisations of cooperative consultancy activities. Jointed activities between research and advisory organisations with respect to teambuilding and the process of strategic consultancy have already been carried out during the recent years in Denmark. Experiences obtained from these activities, which are summarized in Lund & Larsen (2002), show that Action Research is an efficient approach to stimulate teambuilding and the development of strategic consultancy processes. In order to utilize economics of scale, marketing of BSCs to practical farmers could be promoted by the development of consulting packages. To be successful, one requirement is that different consulting packages should be customised to different types of farmers and different farm enterprises. An important requirement is that consultants specialized in BSC activities have received the skills to identify the **unique resources, competences and opportunities** in the individual farm in a dialogue with the farmer and other important stakeholders in the firm.

5 Perspectives of the BSC for Danish Agriculture

5.1 Is the Balanced Scorecard Applicable to Practical Agriculture?

In this article we discussed the relevance of applying the BSC concept to the Danish primary agricultural sector. As for most other commercial companies the BSC for farms should also include the four perspectives "financial", "customer", "internal processes" and "learning and growth". However, once a farmer in Denmark has decided to be a crop, dairy or pig producer he cannot change his specialisation or his business strategy easily. Even his choice of production technologies is largely restricted by legal regulations. Neither can he choose freely to sell his products to whom and at a price he wants. The majority of agricultural producers are selling their products to big processing and packing companies and are also buying most of their input factors from big suppliers. The primary agricultural sector is also characterised by low market power of individual farms. Altogether the typical Danish farm is a *highly integrated small business with low strategic flexibility*. Do these facts make any of the typical perspectives of the BSC invalid for the farm business? Is strategic management possibly not applicable to farms at all? In the authors' opinion the answer to both questions is clearly "no". The reason for that simply is, that size, scope and flexibility of a firm certainly determine its possibilities to shape the business environment and to play a dominant role in the markets, but these characteristics do not effect the general need for a firm to optimally adapt to its legal and business environment (see e.g. Noell 1995, Noell and Diers, 1994). Thus, the perspectives of the BSC and the rules of strategic management are basically the same for any size and type of business – and are certainly as valid for farming as for any other small business. To some extent traditional farms are even better suited for the application of strategic tools than corporate firms: e.g. entrepreneurial visions need to be tied to individual persons rather than to a (management) group for long-term effectivity (Noell, 1994).

5.2 Does the "Customer Perspective" Apply to Farms?

The innovation and development of new customer value packages are normally seen as a typical part of the "customer perspective" in the BSC concept, but generally individual farms are too small to carry out independent innovation and development activities e.g. in breeding or production technologies. Those activities are usually carried out by universities and public research institutions. The results are regularly disseminated by consultants of the advisory service. Does this have any implication for the "customer perspective" not being applicable to a farm's business environment? The opposite is true: a farm's profit is essentially depending on its ability to match the demands made by the already mentioned big firm's that are mainly buying its products. It is true that product and service innovations are not important to a farm that (as the over whelming majority of all farms) follows a strategy of "cost leadership" (Noell, 2002), but the farm has to meet certain quality and food safety demands of its customers (dairy firms, slaughterhouses etc.) in production with corresponding consequences for "internal processes" and the

other strategic areas. A dairy farm for example has to meet high hygienic standards or target values for fat or protein content of the milk delivered. If a farm is following a "focus strategy" or a strategy of "product differentiation an active consideration of customer satisfaction is a necessary core competence (Noell et al. 2001). The explicit consideration of the "customer"- perspective is and will always be important. For the farm firm the customer-perspective is aside from the buyers of their products also including the different representatives of agricultural policy that pay subsidies and make transfer payments to agriculture. The "customer perspective" might be further extended to a (multiple-) "**stakeholder-perspective**" to take into account the special strategic situation of farming. Strategic management would than be well suited to the current and future demands to agricultural "multifunctionality".

5.3 Conclusions

For a successful implementation of the Balanced Scorecard for farms in Denmark five major issues should be considered:

- *First*, shifting from a more or less static strategic planning framework to a more dynamic and comprehensive strategic management practice.
- *Second*, shifting the main strategic focus from "internal processes" to "customer"-perspective and establishing of close links between those two perspectives.
- *Third*, developing a "stakeholder-perspective" and focussing the entire strategic management process on it.
- *Fourth*, because of the peculiarities of the farming sector, the primary starting point of all strategic thinking should be (and remain) the area of resources, capabilities and other potentials of a given farm, while market and product opportunities should be chosen accordingly.
- *Fifth*, the farm accounting practice should be adapted to the needs of strategic management and the Balanced Scorecard. The orientation of agricultural accounting towards processes, products and services should be further strengthened e.g. by the introduction of Activity Based Costing, Target Costing and profitability measurements adjusted for cost of capital (EVA).

Those demands can only be met in close cooperation between research, the advisory system and the farmers themselves. Only in this case the Balanced Scorecard – or any customized derivative for farms – can be used as a functional instrument in agriculture.

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