INTERNATIONAL FARM MANAGEMENT CONGRESS 2003
FARMING AT THE EDGE

A CRITIQUE OF THE USE OF THE BALANCED SCORECARD IN MULTI-ENTERPRISE FAMILY FARM BUSINESSES

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Abstract
Business strategy is very important to small and medium family businesses as many are both fragile and vulnerable; strategy provides a solid foundation for survival. Various studies have identified that businesses that engage in strategic management outperform those that do not. Despite this knowledge the uptake of many aspects of strategic management by farm businesses has been slow. Although the development of business plans is now common there is often a disconnect between monitoring and strategy. The Balanced Scorecard (BSC) was applied to case study farms during both the planning process and as they implemented and controlled their strategic choices to determine areas of difference that restrict or enhance it as a management tool for both family and farming businesses. The BSC was immediately applicable in the strategic management process for those businesses with current business plans. It could be used to test the degree of balance between the goals already identified in their plans. It was able to be used to critique the control measures they had in place and to determine how well they could be used to derive the causal chain from the operational level to family goals. In some instances either outcome or driver measures were recognized as being missing, in others the wiring within the balanced scorecard revealed some strategic measures without linkages.

The identification of the cause and effect linkages allowed the strategic measures that require improvement to achieve superior performance to be identified.

Introduction
While it may seem that strategic planning is a very explicit and formal process, research into smaller businesses has identified that in practice it can be haphazard and informal (Cuthbert & Johnston, 1997). The link between business performance and planning in small ownership managed businesses has, however, long been recognised in strategic management literature. In a recent analysis by Tanewski *et al* (2000) using a multi-method approach of focus groups and a cross-sectional survey of 748 Australian farmers it was found that business planning, farm business size, and farm owner's level of education and age are associated significantly with higher farm performance. Significant predictors of business planning amongst these farmers included level of farm entrepreneurship, perceptions of environmental uncertainty and farm owner's internal locus of control.

For the control function of strategic management to succeed it is essential to select the correct key performance indicators for each business goal and to understand how they relate to other goals and the whole business. The disconnect between monitoring and business strategy idnetified by Kaplan and Norton (1992), has also been observed with farm businesses (Byles et al, 2002) who reported that 47% of farmer interviewees identified measurements not related to their definition of successful business performance. Kaplan and Norton (1992) developed the BSC to assist managers to determine whether they have both the right goals and performance measures. The BSC provides a framework to translate a strategy into operational terms (McJorrow and Cook, 2000). The scorecard addresses the basic aim of financial profit by revealing the drivers to creating long-term performance through investment in such areas as employees, customers, partners and technology (McCann, 2000).

The long-term vision of a farm business is more likely to be achieved if the Balanced Scorecard is used in the strategic plan as it forces the farm business to link its goals to that vision and its monitoring to its goals. In a study of the balanced scorecard in dairy farm businesses, Rawlings *et al* (2000) found that most farms had vague values and absent goals and a tactical and operational management focus. Doonan (2001) found that in Tasmania 90% of the dairy businesses operated without a written plan. Well defined values, however, did not automatically lead to realistic goals or strategy development. Rawlings *et al* (2000) also discovered that the presence of strategic goals did not necessarily shift management focus from its tactical and operational bias as, the appropriate measures for goal attainment were not in place. This tactical and operational focus encouraged farmers to accept production-based goals with a narrow range of business health indicators. It stifled creativity.

A study of ten Tasmanian dairy farms by Davey and Nettle (1997, cited by Doonan, 2001) also found that having a strategic goal did not lead to success if not accompanied by strategic implementation and control. The farms had all expanded herd size

to increase income, employ more labour and to justify capital expenditure. More labour was employed to achieve a better balance between work, family and leisure. For most of the farmers herd expansion did not result in economic or social gains. The expansion changed farm structure and organisation particularly with respect to herd health, stock movement and labour management.
Farmers had fallen into the 'expansion overhead cost trap' and satisfaction levels were low. Only one of the ten farmers had started with a written five year strategic plan, most simply hoped that the investment would eventually pay off. Business expansion without strategy had not resulted in the goals and objectives being achieved (Doonan, 2001).

One of the most significant contributions of the Kaplan and Norton model was to identify the need to translate vision and strategy into concrete directions for action (Atkinson & Epstein, 2000). They further state that the measures in the balanced scorecard were not a wish list for continuous improvement but a plan for strategic execution.

The purpose of this paper is to determine the relevance and applicability of the Balanced Scorecard to multi-enterprise family farm businesses and to evaluate it as a management tool for both family and farming businesses. The paper describes the process by which case study family farm businesses used the balanced scorecard during planning and as they implemented and controlled their strategic choices

The Balanced Scorecard

The balanced scorecard (BSC) summarises a strategically oriented set of goals and their indicators grouped into four different perspectives: financial, customer, internal processes and learning and growth. Some organizations have expanded the basic model to include other perspectives relating to the community or society; others have changed the order of the perspectives for example not-for-profit organisations have reversed the roles of the financial and customer perspectives as the latter more accurately reflects their objectives (Atkinson and Epstein, 2000). The balanced scorecard is based on a common vision for the business. A common vision is a challenge in family businesses where conflict often exists between business and family visions and purpose (Gasson, 1973; Byles et al, 2002). A solution proposed by Andersson (2002) was separate visions for business and for family lifestyle issues and to add a fifth perspective to the BSC, called 'life'.

The absence of goals or abundance of goals in any perspective gives a quick, visual indication of whether the business is "in balance". The key performance indicators are also specified for each goal, both the outcomes (lag indicators) and the drivers (lead indicators).

The next crucial step in the balanced scorecard approach is to identify any linkages or 'cause and effect' relationships between indicators and to see them as a continuum from learning and growth to internal processes to the customer and to the financial results.

Non-financial indicators are usually drivers, informing the manager of likely future performance. For example, learning new knowledge and skills, a lag indicator for learning and growth, is a lead indicator of the farm staff's ability to ensure best practices at 'harvest' are in place. Without investment in staff learning and personal growth, the business has less ability to deliver to the product quality specifications identified in its customer related goals. The under utilisation of non-financial key performance indicators in business control was one of the key findings that led to the development of the balanced scorecard by Kaplan and Norton (1992).

The BSC is a management process not a measurement process and is built upon the organization's vision and strategies; building the scorecard develops consensus and teamwork throughout the organization (McJorrow and Cook, 2000). The measurement element of BSC tells the story of the strategy through both outcome and driver indicators and is balanced between financial and non-financial operating measures.

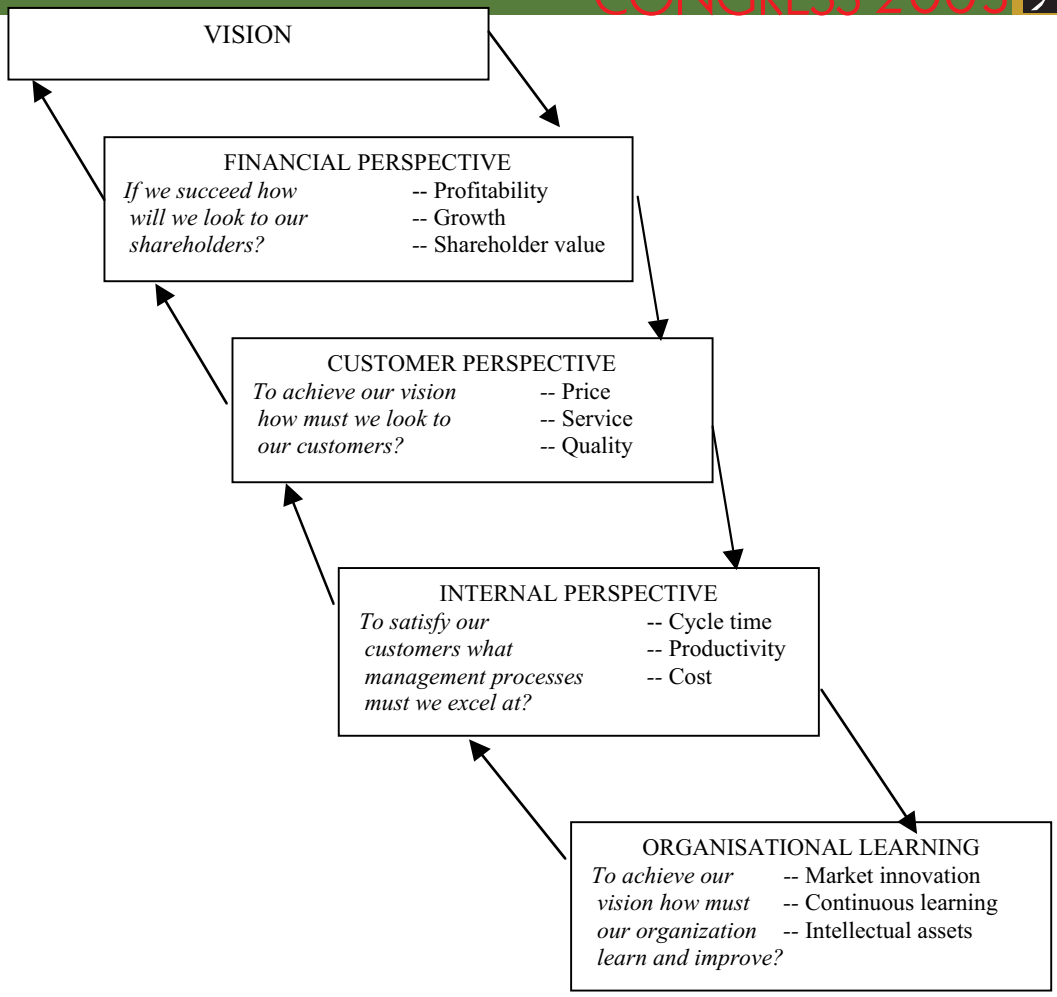

Figure 1: The BSC provides a framework to translate strategy into operational terms (Source McJorrow and Cook, 2000)

Once an organisation has developed a BSC the next task is to move the concept down the organization hierarchy and devise complementary scorecards. Atkinson and Einstein (2000) refer to this as cascading the scorecard or drilling down the organization hierarchy. When properly undertaken the scorecards at each level align everyone's effort because they are relevant, understandable and controllable at all levels. While family farm businesses have less hierarchical structures the complexity of their ownership/governance/management structure would suggest this next step in the BSC process is no less important than it is for the larger corporate businesses.

CASE STUDY FARM ONE

A balanced scorecard was tested with the first case study farm by Brier (1999) as a tool to determine the measures to benchmark. The farm was an intensive mixed farm finishing cattle and lambs to tight market specification throughout the year, growing field crops and organic vegetables which were marketed directly to households. The farm had already completed a detailed strategic plan with the help of a local accountancy firm so had clearly identified goals and measures.
The four perspectives of the balanced scorecard provided the following observations:

The financial perspective demonstrated the strategy of increasing profitability while maintaining both business equity and proprietor's income.

The customer (and supplier) perspective demonstrated the strategy of good relationships with customers and suppliers, and superior customer service.

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The internal business process perspective demonstrated the strategy of increasing and intensifying production while satisfying partners and operating in a socially responsible manner.

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The learning and growth perspective demonstrated the strategy of utilising technology, improving partner and employee knowledge through off- and on-farm training and developing off-farm contacts.

BSC Design

The linkages of the balanced scorecard demonstrated two key indicators (core outcomes) for this businessbeing operating profit and partner satisfaction. Each of these lag indicators were, in turn, affected by other indicators. Three lag indicators, available time, days spent on personal development and partner satisfaction with contacts, and four lead indicators, hours worked per partner, staff satisfaction, array of contacts and customer feedback, drove the lag indicator of partner satisfaction.

Six lag indicators and a lead indicator also drives the operating profit. The lag indicators are customer satisfaction and feed back, percentage of product that hits the target market, number of active customers on databases, kilograms of meat per kilogram of dry matter and the number of organic boxes sold. The lead indicator that drives operating profit is actual cash received against that budgeted.

These drivers of operating profit arise from the internal business perspective and customer (and supplier) perspective. The drivers from the internal business perspective are the number of boxes of organic vegetables sold and kilograms of meat per kilogram of dry matter. The lead indicator of lamb and bull growth rates that are affected by another lead indicator of soil fertility drives the kilograms of meat per kilogram of dry matter. The number of boxes sold is driven by the lead indicator of the number of boxes sold per week that is effected by diversity of product range, growth of database and demand for services that are lead indicators for the customer perspective. These two drivers also affect the lead indicator of actual verses budget.

Discussion

The use of the balanced scorecard identified some issues of interest for multi-enterprise family farm businesses. These include the total number of strategic measures and a need to drill down to enterprise level and to identify any strategic measures not linked to strategy which were therefore unnecessary and a distraction to management.

Also identified was the significant amount of linking that ended at the lag indicator of partner satisfaction. This would suggest that 'partner satisfaction' is of considerable importance to the partners both as a shareholder and an employment issue. The importance of partner satisfaction was not reflected in the vision statement. The balanced scorecard therefore revealed an area that had been overlooked in the strategic planning process.

CASE STUDY FARM TWO

This farm had fewer enterprises than the first farm being a pastoral unit that bred and finished sheep and beef cattle and ran a small number of deer. The stakeholders had previously only monitored the operational and tactical plans that had been implemented with the help of agricultural consultants. The challenge for the stakeholders was to successfully implement a strategic monitoring and control system to enable the longer-term goals (strategic) to be monitored and managed. The balanced scorecard implemented by Beeby (2001) addressed this problem.

Various non-financial measures such as animal growth rates, feed availability, soil fertility and faecal egg counts, are monitored. However, this was undertaken on an ad-hoc basis and the linkages with overall strategy were not always apparent.
The basis for the new business plan was that the owner would look after the strategic control with the staff carrying out control of operational activities. Therefore the system needed to have in place a framework where only appropriate information is supplied.

BSC Design

The design of the BSC for this farm involved 'drilling down' the respective responsibilities of the owner and the staff and linking them to the strategic plan. Strategic control for the farm owner combined three perspectives (financial, customer, and learning and growth) because the decisions are non-routine and non-recurring, with uncertain outcomes. Staff control the lead indicators for both the internal business process and the customer perspectives. Staff responsibilities include routine monitoring of pasture growth rates, animal intakes, animal growth rates, young bull feeding and all animal health recording. This information is then presented to the farm owner where tactical and strategic decisions can be made on feed deficits and nitrogen use, stock weight and stock marketing, and providing suppliers and buyers with information to consolidate relationships. This information can also be used to measure lag indicators such as feed conversion efficiency, target stock weights and meat produced per hectare.

The farm manager and staff, with goals and measures for the perspectives of customer and internal business processes, used individual 'focus' area scorecards for the areas they controlled. This scorecard incorporated lead indicators, providing early warning in relation to the tactical goals. The tactical goals have been aligned by management, to meet the strategic objectives for the two perspectives of the business scorecard in which this focus scorecard will operate.

The implementation of the BSC gave these stakeholders a clear idea of current business health and a framework for future strategic planning and control.

CASE STUDY FARM THREE

The balanced scorecard approach was adopted for the third case study farm by Beeby (2001) with the emphasis being on a central scorecard to identify progress towards goals; however, the internal business perspective was expanded to include individual enterprise scorecards. The aim of this approach was to obtain a greater understanding of the farm's enterprises, and define a blueprint, so current strategies could be replicated on another farm.

Two major challenges for this farm were identified, each at different ends of the management spectrum. Firstly, a farm system was designed to maximise the strengths of the individual soil types. The farm possessed a range of soil types with distinctive characteristics, each requiring different management.

The second challenge is maintaining business momentum as the family and business move through life-cycle changes. In particular the business now appears to have left 'entry phase' and entered a combination of the 'growth' stage Boehlje & Eidman (1983) and 'success' stage Peiser & Wooten (1996). Also as the business has moved through a life-cycle change the farming family is also set to enter another phase as the children begin school. The BSC was used to test whether the goals were correct to meet the business and family vision is met.

On this farm lead and lag measures were understood. A complete monitoring system had been developed over the preceding years. This had mainly been used for relationship building with buyers and for enterprise and system analysis. The only new skills required were a deeper understanding of the financial principles involved. As there is considerable monitoring already in place on this farm the balanced scorecard was seen as a means to add structure and definition to a very comprehensive system.

BSC Design

The goals were grouped within the four perspectives of the BSC as follows:

1. Financial: Stakeholder expectations, sustainable business and equity growth, financial security, and operating performance.
2. Customer: Maintain existing client relationships, build new relationships, and provide more than the average farmer so as to be a preferred supplier.
3. Internal: Sustainable business operations, increase profitability and flexibility, and systemise components of the business.
4. Learning and Growth: Build and maintain staff relationships, grow personal knowledge, increase business and personal profile.

The lag and lead indicators for each goal were identified. A particular strength of this farm was their customer perspective.

CONCLUSIONS

Evaluating the use of the BSC on multi-enterprise family farm businesses led to the identification of some interesting issues on its application. The first test was to determine whether these businesses required additional or enhanced perspectives. As with some of the dairy farmers reported by Rawlings et al (2000), the customer perspective provided some challenges. Those businesses with goals in this perspective were very specific and identified the role of the business in the respective food or supply chains concentrating not only on buyers but also on the suppliers of inputs relevant to business success. The enhanced perspective recommended for this area is therefore to term it the supply chain perspective to enable management to include goals that include aspects relevant to both buyers from and suppliers to the business. These aspects might include relationships, levels of service/contact, alliances and price.

The other feature specific to family farm businesses that created some confusion amongst case study farms was determining which perspective to use when addressing goals that related to family expectations such as time off, family holidays and educating the children. As the family is both owner of and employee in the business it became apparent that a distinction had to be made between the goals that related to improving the employee environment, such as time off, which fit in the organizational learning and growth perspective and those that related to delivering to owners' requirements irrespective of 'working conditions', such as providing sufficient funds to educate the children. To make this distinction it is recommended, rather than adding a fifth 'life' perspective (Andersson 2002), that the financial perspective be recognized more clearly as the shareholder/financial perspective. This will enable the recognition of all shareholder expectations whether they be goals that are reliant on a financial result such as children's education or, as is not uncommon, goals that are not immediately reliant on profit to be achieved, such as environmental ethics and 'stewardship of the land', to be included in the top perspective. The BSC framework could then be used to identify for cause and effect linkages from the other perspectives to these goals and, ultimately to the overall vision.

The second test with these case study farms was to determine whether drilling down the BSC was relevant in a smaller business. The multi-enterprise businesses researched provided useful examples of smaller businesses that could benefit from drilling down, either to the enterprise level or from the owner to employees. The risk of too much drilling down is that a plethora of lag and lead indicators would be developed and the linkages between them and the business vision would be lost. Lack of clarity could lead to the BSC becoming a measurement process and not be the management process it is designed to be. However given the complexity of some of the multi-enterprise farm businesses researched some drilling down is essential if strategy is to be translated into operational terms. This would ensure that everyone's efforts are relevant, understandable and controllable in each enterprise.

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