Business options and strategies: a study of small herd owners views in the Waikato, New Zealand

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Abstract. In the last thirty years the size of the average New Zealand dairy herd has almost tripled. Despite this growth, 36% of herds are considered small with less than 250 cows. It is important to develop an understanding of the goals and future business strategies of owners of small farms. In the Waikato region of New Zealand, 13 owners of small farms were interviewed using a semi structured qualitative approach. The farmers' two key goals were flexibility and time for non-farming activities, and sufficient funds for the family and business. The business strategy was to generate a strong annual cash surplus and reduce debt to a low level by retirement. Then funds previously used to repay debt could be used to employ staff to milk the cows. The key lesson was that farm owners with small herds follow a strategy that focuses on generating a strong cash-flow and debt management or minimisation. This information will allow extension programs and commercial products and services to be tailored to the needs of owners of small herds.

Keywords: small dairy farms, capital, debt, survival, business strategies.

Introduction

There has been a dramatic increase in the average dairy herd size in New Zealand in the last thirty years. In 1981/82, there were on average 130 cows per herd, by 2011/12 this had increased to 393 cows per herd (Dairy Statistics 2013). There were pronounced regional differences in average herd size. Canterbury, in the South Island, had on average 776 cows per herd, whereas the traditional dairying areas of Taranaki and the Waikato have small herd sizes of 279 and 312 cows, respectively (Dairy Statistics 2013). Thirty-six per cent of New Zealand's dairy herds are considered small-scale with less than 250 cows. Given the high proportion of small herds in New Zealand, it is important to understand the goals and business strategies of farm owners with these sized herds. Extension agents can then tailor programs specifically to meet the needs of small scale dairy farmers in New Zealand.

There is concern in the United States for the survival of the small farm, with large farms outperforming them on all economic indicators (Nehring et al. 2009). In New Zealand, the economic farm surplus per hectare (EFS/ha) for small (<50 ha) farms was greater in the mid 1990's than the EFS/ha of larger arms, however fewer hectares meant a lower total cash surplus for small farms (Allen 1998).

It has been suggested that small farms will continue to amalgamate in the future, and the average farm size will continue to increase (Allen 1998; Parker et al. 2000), but this will lead to a loss of social capital (Parker et al. 2000). The definition of how many cows or hectares constitute a small farm is arbitrary and has increased over the years. Allen (1998) used a farm size of 40 hectares and Parker (2000) used a farm size of less than sixty hectares or supporting fewer than 180 cows. This study used farms with fewer than 250 cows, the level initially used by the organisation Smaller Milk and Supply Herds (SMASH), although this group now prefers not to specify a farm or herd size to qualify as small (Brown J, pers. comm.).

Researchers and farm consultants have put forward strategies for owners of small dairy farms to improve their viability. These include increasing farm productivity and profitability, amalgamate, move to a larger farm, generate off farm income, diversify or leave the dairy industry (Allen 1998; Parker et al. 2000), invest 'off-farm' (Allen 1998; Anderson 1999) erode equity in the farm or do nothing (Allen 1998).

There has been a trend to intensifying dairy farming systems over the last ten years from predominantly all grass, to systems incorporating increased supplementary feed (Greig 2012). According to Hein and Roth (2007), farmers reported the key drivers for their intensification were to increase profits and to gain personal satisfaction from maximising returns from the land. Researchers have also noted that more intense systems can be more complex to manage (Headly 2006). There is, however, agreement in the literature that the level of farm intensification by itself is not a good or reliable indicator of farm profitability (Newman and Savage 2009; Shadbolt 2012).

Expansion is another potential farm business strategy. Expansion could involve increasing the size of the home farm or relocating to a larger property in another district. Many Waikato farmers have relocated to Canterbury, to purchase cheaper land and to have the opportunity to

develop a large farm, employ staff and adopt new technology (Pangborn 2012). Challenges for relocating farmers included distance from friends and family and employing staff (Pangborn 2012). Farmers could also expand their business without moving or altering the size of the home farm by investing in an equity partnership. Equity partnerships are a relatively new option where investors pool their funds and expertise to purchase a farming business (Reekers et al. 2007). The critical factors for a successful partnership centre on the interpersonal relationships between the partners (Reekers et al. 2007).

Diversification is another possible strategy. In the United Kingdom, small dairy farms have been encouraged by the government to diversify to non-food producing activities, such as renting out farm buildings. However, this strategy has had mixed success at increasing farm incomes (McNally 2001). Diversification of the dairy farm business could involve investing off farm, for example investing in shares or a non-agricultural property. Investing off farm has the potential to enhance the farmers' income and diversify their risk. However, in order to invest off farm, the farms cash-flow has to be able to meet expenses such as debt servicing and provide funds for initial investments (Anderson 1999).

The aim of this research was to investigate the business strategies of owners of farms with small dairy herds in the Waikato under current economic conditions and to report the range of business strategies considered by the farmers interviewed and the reasons why they were following their particular strategy.

Methods

A group of 13 small dairy farm owners in the Waikato region were interviewed for this research. The aim was to interview dairy farmers who were at different stages in their farm ownership career and operated a variety of farming systems in a range of environments within the region. The farmers were identified through a snowballing method, several initial contacts suggested other interviewees. The farmers were interviewed using a semi-structured, qualitative approach with question probes. During the interviews, farmers were asked to describe their current farming system, then their future farming goals and the strategies they were using or planned to use to achieve their goals. The majority of interviews (10) were recorded and transcribed, while detailed notes were taken during the other interviews. The interviews were then reviewed, looking for common themes relating to farmers objectives and business strategies. Several clear and common themes emerged from the material which were summarised.

Results

Description of interviewees' farms, and farm system

The interviewees' farms ranged in both farm size and number of cows milked, as shown in Table 1. The topography of the farms also varied from steep hill to rolling and flat country. Several farmers commented that their farms were also wet and prone to pugging in the winter. The amount of purchased supplement fed per cow ranged from 60 to 1,500 kgDM/cow/year, and the level of milk production varied between farms, as shown in Table 1. Of the farmers interviewed, two per cent were in the early stage and half (54%) of the sample were in the mid and a third (31%), were in the latter stages of farm ownership.

Table 1. Descriptive statistics for interviewees' farms

	Minimum	Maximum
Effective farm area (ha)	40	72
Number of cows milked	110	225
Purchased supplement (kgDM/cow/yr)	60	1500
Per cow milk production (kgMS/cow/yr)	275	454
Per hectare milk production (kgMS/ha/yr)	775	1428

Farmers' goals and drivers

Two key goals became apparent during the interview analysis. These were the desire to generate sufficient income for the family and have spare time and flexibility for other non-farming activities. In addition farmers did not want to become 'people managers'. One farmer commented:

> There are other things to do apart from milking; its lifestyle first, cows give security of income, although I'm not passionate about the cows'.

Farmers in general also commented that they weren't motivated to generate additional wealth or capital per se. The motivation was for a sufficient, but not necessarily maximum income, and the farmers interviewed often cited this reason for not targeting the purchase of a larger farm. Another farmer said:

> I didn't see the need to go bigger, if we can make good money on a small farm, why have the hassles of going bigger, it is fairly simple. There is no point about being greedy about it, we have enough and don't need any more'

Farmers' business strategies

The farmers interviewed were able to purchase their farm with their own funds and a relatively large mortgage from a bank. During the initial stages of farm ownership the key strategy of the majority of farmers interviewed was to generate a cash surplus from the farm business each year, even in difficult times.

Borrowing extra funds, in addition to the existing mortgage during the early stage of farm ownership, was not an option for many of the farmers. The farmers focused their spending on parts of the business that they believed generated a profit, yet were frugal in other areas of spending. Typical comments regarding attitudes to spending money were:

> … we prioritised everything….. if we couldn't afford it we didn't do it

> Financial discipline was really the key to it and I used to count the dog biscuits

Some of the farmers used formal budgets and cash-flows to assist with their tight financial control, yet others relied on 'gut instinct' and spent as little as possible. Several of the farmers ran their business with the business bank account in credit and therefore did not need an overdraft facility. This was done to minimise the interest cost to the business.

The next key strategy following generating a cash surplus was to meet debt servicing requirements. The farmers also targeted completing essential capital development. This meant bringing basic farm infrastructure such as stock water, races and fencing to a standard at which the farm could be managed efficiently. Most of the farms required moderate to significant spending on essential development. The challenge faced by the interviewees during the early phase was meeting debt repayments yet 'getting the farm up and running'. To minimise the cost of the essential capital spending, farmers talked of doing as much of the work themselves and recycling as much material as possible. Typically it was said:

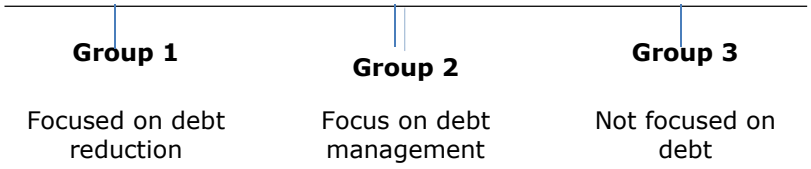
> You would get a little bit when you could afford a little bit, virtually all the fencing was just re-arranged rather than much new stuff

The majority of farmers' prioritised the essential work to be done and undertook the capital development as funds allowed. In some cases this led to extra work on the farm such as running two herds.

Following the initial stages of farm ownership, farmers continued to focus on generating a cash surplus, but they fell into three key groups with regard to their business strategy, as shown in Figure 1. The first group of farmers focused heavily on debt reduction. Their aim was to be debt free, and to have cash reserves, when they came to retire. In later years they planned to use the annual sum used to repay debt to pay for a staff member. A sentiment such as:

> If we do put a labour unit on I feel we need to be mortgage free' was commonly voiced.

Figure 1. Interviewees focus on debt



Farmers in the early stage of their farm ownership career considered alternatives to debt repayment but the returns had to very good. Often these farmers made additional principle repayments.

The second group of farmers were also focused on debt management, but firstly to get debt levels down to a level they considered acceptable. This group of farmers became more active in considering alternative uses for their funds. However, these farmers, and those in the first group, had strict, conservative, criteria that an opportunity had to meet before they would consider investing. Firstly, the investment had to generate a cash surplus under conservative production and milk payment estimates. If not already debt free, the return would then be compared to that which could be achieved from debt repayment in the existing business.

The third group of farmers believed that debt repayment was not important. Only a few farmers interviewed were in this category.

In general farmers believed that the farm business was primarily to provide retirement support. Farmers were keen to financially assist their children where possible, but not at the expense of their retirement. One farmer noted:

> ….any farm succession will be by way of cash settlement when we are dead and buried.

For most farmers any increase in capital gain of their properties was a secondary consideration. In fact many farmers were concerned about potential overcapitalisation, especially in relation to houses. Most farmers were prepared to renovate both the owner's and staff accommodation, but were reluctant to build new houses. This led to some interesting solutions such as purchasing a house in a nearby town, or importing a relocatable house which could be removed and sold separately to the farm.

Farm intensification Once the essential capital development was completed, the next question the farmers faced was whether to invest in infrastructure to make the farm more productive, through intensification. For the group of farmers focused heavily on debt reduction (farmers in group 1) the decision was simple and clear cut. They believed that they could get a higher return either from investing in debt repayment, or off farm relative to the return from on farm productivity gains. To the question 'How good would lifting production have to be before it overtook repaying debt', two farmers replied:

> … almost double… so I try to have as little risk as possible.
>
> I don't want to do any marginal spending here because I would sooner put it all into the Ports of Tauranga or Auckland airport.

Farmers assess or had thresholds for return on investment needed before they would focus on increasing milk production on their property.

Some farmers in group two had invested in capital to improve on farm productivity. A common investment was an in-shed meal feeding system. This investment was selected as it allowed supplements to be fed during milking, reducing the workload on farm. Another farmer had installed automatic cup removers in the dairy shed, again for increased labour efficiency. Few farmers interviewed were interested in significant spending to improve on-farm productivity. Several farmers commented that they would intensify their system, for example install a feed pad, if it allowed their business to remain viable or allow the farm to financially support family members, returning to the farm.

> I think it has its merits, but I would only consider it if we employ someone or my son would come and work for us…. If that is an option to keep farming in the future we need to consider it' was a common sentiment.

Farm expansion Several farmers had purchased small parcels of land adjoining their home farm. These purchases had to meet the farmers criteria of being cash-flow positive. Purchasing adjoining land was not always seen as a viable financial option, farmers were cautious and prepared in some cases to forego the opportunity. For example, if purchasing the land would require additional cows, and hence major alterations to the shed and workload, or if they believed that the land itself was overpriced then the proposition was not viewed favourably.

Most farmers in a secure financial position had considered equity partnerships, however very few farmers were currently in this form of business partnership. Interviewees considered the key risk as the unknown characteristics of partners. Farmers also considered the equity partnerships that they had investigated as over-leveraged with poor returns compared to the returns from their home farm.

Farmers said they would consider equity partnerships with small numbers of partners, who they could work with and if the partnership had an appropriate capital structure. Many farmers had

also investigated moving to a larger farm in the South Island, either Canterbury or Southland, but had not moved as family members had not wanted to move away from friends and extended family.

In response to the question 'Why the interviewed farmers had remained on their small farms' most commented that they could generate enough money for the family's needs from the small farm, and had no need or motivation to move to a larger farm. Typically they said:

> When does need become greed', it's already a gold mine why go larger?

In addition, many farmers did not want the problems of employing staff, and felt more comfortable farming by themselves or their family. When it was pointed out that many of the farmers hoped to employ staff when they retired, the comment was that would be different as they would not be able to do the work themselves. Flexibility was another very important reason for staying on their small farm. There were numerous comments about the farming couple having time for other community and family activities whilst operating their small dairy farm. One said

> We have done a lot of community stuff but that was a conscious decision to be on a property that it gave us a financial base and the flexibility that it didn't need the two of us here.

Farm diversification Investing in off-farm investments was another key strategy used by about half of the farmers with other farmers commenting that they would consider investing off-farm when in a financial position to do so. Several farmers had substantial share portfolios worth half as much as the farm business. These farmers had taught themselves about investing and had enjoyed the challenge. The main off-farm investments used were shares and commercial property. However, one investor noted:

> The ones we looked at in the past were primarily shares and equities… we discounted commercial property as too hard to manage and we don't have core competencies around it and its relatively high risk

Summary and discussion

All farmers interviewed met the criteria of milking less than 250 cows. In addition the farmers represented were at different stages of their farm ownership career, operated farms with differing topography and used different levels of purchased supplement to achieve their farms production.

Drivers of farmers' business strategies

Two key motivators for small farm owners' business strategies emerged. The first driver was to have sufficient time and flexibility for family and non-farming activities. While previous authors have highlighted the importance of 'lifestyle' (Parker et al. 2000) this is an inadequate descriptor as in these cases the farmers talked of value systems that encompassed 'having sufficient for our needs and not requiring more'. Farmers also had a preference for allowing sufficient time and flexibility in their daily routines without becoming people managers, hence moving to a larger farm with staff didn't fit their drivers. In general farmers were not highly motivated by increasing the capital wealth of the business; however they were largely interested in generating cash surpluses.

The second driver was generating sufficient funds for their families' requirements and to maintain the farm business. The emphasis was on generating a 'sufficient return' rather than maximising the return and this finding was in agreement with the findings of Nuthall (2010) amongst others.

The cash return from the home farm was also important to provide a benchmark with which to compare returns from other potential capital investments. As reported by Parker et al. (2000), the farmers interviewed in this study preferred to use a cash surplus to repay debt and develop the farm rather than purchase farm equipment or additional land. Repaying debt was seen as a virtually risk free investment and farmers felt it provided a higher return compared to purchasing infrastructure for intensification, or purchasing a larger farm. Many of the farmers in this study were also conscious of over capitalising their farm.

The farmers' business strategies

The business strategy followed was remarkably similar across all of the farmers in this study. Their strategy was to focus on generating a cash surplus each year and debt repayment or management. There was also a strong emphasis on cost-control which is important in generating a cash surplus in low input systems (Shadbolt 2012). In agreement with Allen (1998), farmers believed that their farm with low to no debt could survive and even thrive financially in the medium term. When they came to retire farmers aimed to have low to no debt

and preferably some cash reserves or off farm investments. When farmers retired, funds previously used to repay debt could be used to pay staff to run the farm. Thus farmers planned to remain on their farm, receiving an income from the business, but not milking. Farmers identified their own health as a key risk to this strategy. Employing a staff member earlier in the strategy than planned would reduce the cash surplus available for debt reduction or off farm investment and thus the financial position of the business when the famer came to retire.

The majority of farmers commented that while they were would like to assist their children financially, the farm was primarily to fund their own retirement. This attitude would allow farmers to use the retirement option suggested by Allen (1998) of eroding their high equity in the business by adding farming financial losses to the mortgage.

Intensification

In earlier research farmers indicated that they could potentially increase milk production by milking more cows (Parker et al. 2000) or intensifying their system. Interviewees were divided on the profitability of feeding additional supplements to cows. They were conscious that the level of supplement feeding is not a good indicator of farm profitability (Newman and Savage 2009; Shadbolt 2012). The main concern with intensification was, however, the investment required in infrastructure and the associated increase in workload. The majority of farmers believed that they could get a higher return with less risk by repaying debt, or investing off farm. The exception was infrastructure that reduced labour requirements on farm such as in-shed meal feeders.

Expansion

Expansion was another potential strategy for owners of small farms. The majority of farmers were not looking to expand, unless the expansion allowed for the next generation of the family to join the business. As indicated by Parker (2000), farmers were generally very happy with their current farms' location and reluctant to move away from friends and family. In addition, many farmers were generating cash surpluses on their home farm which they believed would be difficult to achieve on another, larger farm. Parker et al. (2000) commented that a lack of capital was a barrier to raising the income of farmers on small properties, yet farmers in that study did not rate capital as a limitation. In this study farmers were not motivated by increased wealth or capital, unless it was to incorporate the next generation of the family into the business, so there was little economic motivation to move to a larger farm. Moving to a larger farm meant becoming 'people managers' which, as already noted was not a driver of the farmers interviewed.

An alternative option for expansion, which most farmers had considered, was investing in an equity partnership. Despite farmers finding that earlier partnerships were over leveraged with relatively poor returns, and considering the risk of investing with other unknown partners, farmers were still prepared to consider this business strategy in the future. It may be valuable for extension agents to provide owners of small farms with up-to-date information on the development of this business option.

Diversification

Diversification into non-farming businesses was the most popular investment option following repayment of debt. Parker et al. (2000) came to a similar conclusion. None of the farmers interviewed in this study were running a non-agricultural on-farm business, such as bed and breakfast accommodation, as is often the case in the UK (McNally 2001). While some farmers were working off-farm and bringing in additional income, it was seen as more of a chance to follow opportunities rather than a long term business strategy as has been suggested (Allen 1998; Parker et al. 2000). The most common off-farm investment options were shares and commercial property, with the final choice depending on the farmers' personal preference. The potential to reduce risk, by spreading their business over two different sectors appealed to farmers. Some farmers expressed an interest in learning more about off-farm investment, this information and knowledge could be provided by extension services.

Conclusions

It is clear that the majority of owners of small farms were satisfied with the income and time/flexibility afforded by their farm business. They were clear and confident in their business strategy, which was realistic given their drivers and businesses. Even as NZ farm size increases the small farms are currently still able to run profitably into the foreseeable future.

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