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Introduction to Financial Management of Aquaculture Businesses

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Careful financial management is essential for the success of an aquaculture business. While financial management is a complex topic that can be approached from many perspectives, some of the key questions that the manager of an aquaculture business must answer are:

1. Will the business survive in the long run? Can it generate enough value over time to pay off its debts? (Economists call this "financial position.")
2. Is the business profitable in both the short and long run? (Economists call this "profitability.")
3. Can the business generate enough cash when needed to pay its bills? (Economists call this "liquidity" and "cash flow position.")

The business must be able to respond affirmatively to these questions to be successful, but determining the answers requires careful, thorough and comprehensive analysis. This publication outlines the types of analyses and financial statements required to answer these critical questions.

The concepts of financial position, profitability and liquidity/cash flow are quite distinct. While each interacts with and affects the others, each must be analyzed and monitored independently to isolate its effects and to make informed decisions. Different financial statements must be used to assess the three questions/concepts. Financial position is determined from the balance sheet, profitability from enterprise budgets and income statements, and cash flow from the cash flow statement. These are the three key financial statements that must be prepared to adequately assess and monitor the financial performance and prospects for the business. (See SRAC Publications 4401, 4402 and 4403 for details on these financial statements.)

Financial analyses and management should be integrated into an overall business plan to provide the best guidance for farm decision making (Fig. 1). A business plan begins with the development of specific goals for the business, both short- and long-term goals. The owner/manager should take time each year to do a careful assessment of the past year's performance, determine which goals were achieved, and identify the factors that contributed to the accomplishments and deficiencies of the business. New goals should then be developed for the upcoming year.

The goals for the business should be very specific. One business may have a goal of improving its financial position by reducing its debt/asset ratio by 5 percent. Another business may decide that it needs to improve liquidity and cash flow by paying down the principal on

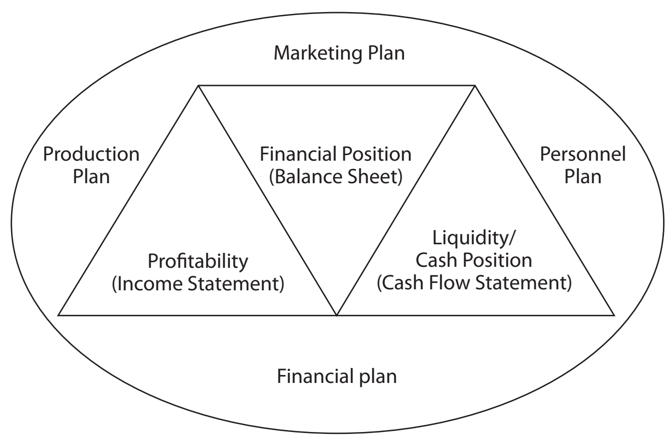

Figure 1. Financial management within the overall framework of business planning.

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its operating loan by 20 percent. A third business may seek to improve profitability by 3 percent by investing in additional aeration capacity to produce higher yields.

The remainder of this fact sheet will focus on financial management by addressing each of the three key questions.

Financial position: Will the business survive in the long run?

Whether or not an aquaculture business will survive in the long run has a great deal to do with the financial position of the business. Financial position relates to the business's financial strength or weakness as determined from the balance sheet. A strong financial position is one in which the business has sufficient assets to cover its debt obligations; a weak position is one in which the debt obligations of the business exceed the value of its assets.

Banks use a business's financial position as a key factor in determining the level of risk in loaning funds to that business. A business with a strong financial position will find it easier to secure financing from banks than one with a weak financial position.

How exactly is financial position measured? It is measured from the balance sheet and the financial indicators calculated as part of its development. The balance sheet itemizes all the assets of the business and compares the value of the assets to the value of the business's debts. The bottom line on a balance sheet is the net worth. A positive net worth indicates that the value of the assets is greater than the value of the loans and that the business is solvent. Indicators such as the debt:asset ratio and others provide more specific measures of the overall financial strength or weakness of the business. SRAC Publication No. 4401 provides details on compiling and interpreting balance sheets and on the associated financial ratios for aquaculture businesses.

Profitability: Is the business profitable in both the short and long run?

Profitability means that the revenue exceeds the expenses of the business. This is different from comparing assets and liabilities on a balance sheet to determine financial position. A profitable business may be in a weak financial position, and a business with a strong financial position may not be profitable.

Profitability must be evaluated on both a long-term and a short-term basis because business goals and decisions may differ depending on the time frame used. To look at whether an enterprise is generally profitable in typical or average years, the most frequently used tool is the enterprise budget. The enterprise budget compares annual costs and returns for a business using average values for some period of time. It gives a general idea of profitability over that period of time for a typical set of costs, prices, yields, and feed conversion ratios. Because it is based on average values for fish price and yield, it can be used only to analyze the prospects for an enterprise in a general way. It is not a good measure of the short-term profitability of a specific business.

To analyze the short-term profitability of a business, the appropriate financial statement is the income statement. Unlike the enterprise budget, an income statement typically is prepared for the business for one specific year. It itemizes all revenue and all expenses for that year and calculates the profit or loss for that year. For this reason, it is also referred to as a profit and loss statement, or a P & L. SRAC Publication No. 4402 provides details on compiling and interpreting enterprise budgets and income statements for aquaculture businesses.

Liquidity and cash flow: Can the business generate enough cash when needed to pay its bills?

Whether the business can generate enough cash when needed to pay its bills is the third key question that must be addressed. Liquidity (cash flow) is a separate concern from financial position and profitability. Profitable and solvent businesses may not have adequate cash flow to survive. Alternatively, highly liquid businesses may not be profitable or may not be solvent. For this reason, liquidity must be analyzed separately from the analyses of financial position and profitability.

Liquidity (the ability of the business to generate enough cash when needed to pay its bills) is a fairly broad concept and a number of financial indicators can be used to measure it. Of these, the cash flow statement is the most useful. In a cash flow statement, all cash revenue and expenses are recorded for each month and any surplus or deficit calculated. It shows the pattern of cash flows, indicates months with cash flow shortages, and shows when additional operating capital is required. The cash flow statement for the past year is the basis for developing a cash flow budget for the coming year. Projecting expected cash revenue and expenses for each month of the coming year is the best way to structure the business's operating loan to ensure that operating capital will be available in the months needed to avoid cash shortfalls.

The analysis of liquidity/cash flow does not measure profit because only cash revenue and expenses are considered in the cash flow analysis. Important non-cash items such as depreciation are not included in a cash flow analysis as they are when the business's profitability is being analyzed. Similarly, the cash flow analysis does not include measures of the value of assets as compared to debt obligations and does not measure the business's financial strength or weakness, as does the balance sheet. SRAC Publication No. 4403 provides details on compiling and interpreting cash flow statements and budgets for aquaculture businesses.

What is essential for an aquaculture business to survive financially?

In the long run, the business must demonstrate increasing net worth and increasing financial strength, as viewed from the balance sheet. A business that is not generating enough value over time to pay off its debt obligations will not survive unless the owner is willing to invest capital from outside the business.

Secondly, the business must generally be profitable at projected future average prices and costs, as viewed from an enterprise budget. At the same time, the business must survive the short run for there to be a long run. In the short run, the business must be able to sell fish at a price that covers its costs but not necessarily all its fixed costs (depreciation, unpaid owner/operator and family labor).

The third important factor contributing to business survival, particularly in the short run, is for the business to have adequate cash flow. The business must generate enough cash revenue to make its payments when those payments are due. The cash flow budget must be based on a plan for having positive cash flows for each month to ensure that all bills are paid on time.

Any successful aquaculture business must have someone who spends a great deal of time planning and monitoring the financial performance of the business. Planning and monitoring must lead to actions that help the business meet its goals. The odds of short-term survival are enhanced when the manager monitors the business's cash flow statement on a monthly basis. Any deviations need to be noted monthly and corrective actions taken quickly. Long-term survival is enhanced by careful and thorough analysis of the entire financial performance of the business at least once a year. This includes careful examination of the balance sheet to determine the business's financial position and how it may have changed over the course of the year. This must be followed by analysis of the income statement to evaluate whether the business generated a profit or loss for the year and to identify the major factors affecting the past year's profitability. Finally, the cash flow statement from the previous year must be scrutinized as the basis for developing a cash flow budget for the next year. Setting very specific goals for the upcoming year and then carefully monitoring and assessing throughout the year will maximize the chances of the business being successful.

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