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FINANCIAL MANAGEMENT FOR THE NEW ENTREPRENEUR

BY

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Bachelor of Business Administration, University of North Dakota, 1979

An Independent Study
Submitted to the Graduate Faculty of
The University of North Dakota
in partial fulfillment of the requirements
for the degree of
Master of Business Administration

The University of North Dakota Graduate Center

June 1989

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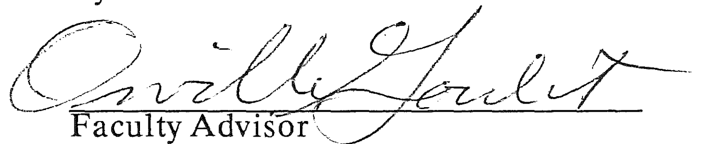
APPROVAL

This independent study submitted by Janna L. Rohrer in partial fulfillment of the requirements for the Degree of Master of Business Administration from the University of North Dakota is hereby approved by the Faculty Advisor under whom the work has been done. This independent study meets the standards for appearance and conforms to the style and format requirements of the Graduate School of the University of North Dakota.



Faculty Advisor

PERMISSION

Title: **FINANCIAL MANAGEMENT FOR THE NEW ENTREPRENEUR**

Department: School of Business and Public Administration

Degree: Master of Business Administration

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Date June 30, 1989

ACKNOWLEDGEMENTS

I would like to extend my thanks to the following people during the preparation of this study and my graduate education. I am dearly grateful to Mark, my husband, and Katherine, my daughter, for sharing me with my books and research; and to Gerhard and Norma Ross, my parents, who instilled a desire for learning in me; and to my late sister, Kelly, whose strength has been an inspiration to me; and to the people of Norwest Bank, both clientele and fellow employees, for their vast resources and assistance with my financial survey; and to Dr. Goulet and the university staff for their encouragement and guidance; and to my fellow classmates for adding fun to the process of education.

Without the gracious support of these people, this study would not have been completed.

CHAPTER 1

INTRODUCTION

This study is intended to provide new entrepreneurs with insight into successful financial management and a better understanding of the risks of business ownership.

Why is prudent financial management necessary? It is an important factor for success. OVER 80% OF BUSINESSES FAIL IN THE FIRST 10 YEARS OF OPERATION. This is broken down by years as follows:[1]

Year	Percent
1	1
2	10
3	16
4	15
5	11
6	10
7	7
8	5
9	3
10	3
10+	1

William Dunkelberg, the dean of Temple University's School of Business and Management, and Arthur Cooper and Carolyn Woo, both management professors from Purdue University, recently studied nearly 3,000 new

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[1]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation, 1984), 1-1.

businesses during the period from 1985 to 1987. They identified a number of factors that divided successful businesses from the unsuccessful.[2]

Successful businesses were more likely to have

1) specific business plans
2) used professional advisors
3) started with higher levels of capital
4) college degree
5) dedicated full time to their business[3]

Businesses need to anticipate the financial structure and financial resources it will need at least 2 or 3 years ahead. Today's capital structure will probably not be adequate for tomorrow's financial needs. The well managed business that addresses these issues before a crisis happens can usually obtain what it needs.[4]

Planning is not easy, but it is necessary to survival and pays great dividends.

Among the benefits are:

1) teamwork within the company
2) setting goals and objectives help promote growth
3) provides standards for measuring performance
4) indicates financial position of the company[5]

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[2]Buck Brown, "Enterprise," The Wall Street Journal, 14 February 1989, B1.

[3]Ibid.

[4]Peter F. Drucker, Innovation and Entrepreneurship: Practice and Principles. (New York: Harper & Row Publishers, Inc.), 1985, 188-189.

[5]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation), 1984, 1-1.

Overwhelmingly, the predominant cause of business failure is poor management. This accounts for 93% of the total. Often, an individual goes into business because of particular skill he/she has in production or sales and lacks the knowledge to manage all aspects of the business. This is especially true in the area of finance.[6]

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[6]Ibid.

CHAPTER 2

TESTING THE THEORY: NEW ENTREPRENEURS ARE LIKELY TO OVERESTIMATE PROFITS

SURVEY OF NORTH DAKOTA ENTREPRENEURS

The author is an experienced commercial banker. Her knowledge of business finance supports the theory that new entrepreneurs are likely to overestimate profits. To test this theory, the questionnaire in Appendix B on pages 38-39 was mailed to 65 North Dakota entrepreneurs who have been in business six years or less. The cover letter may be referred to in Appendix A on page 36. The response ratio was 52% within 2 weeks of mailing.

METHODOLOGY

Of the businesses selected, 92% were customers of a nationally chartered commercial bank where the author is presently employed. As of December 31, 1988, this bank had over $900,000,000 in assets and approximately $300,000,000 in commercial loans outstanding. It is a subsidiary of a $21 billion corporation. The author asked her cohorts in Bismarck, Fargo, Jamestown, Grafton, Hillsboro, and Minot for names of entrepreneurs that had either started a business or purchased an existing business within the last six years. It was also specified that the entrepreneurs should have prepared written projections for the bank prior to opening their business. There were a few exceptions to this criteria as indicated in the next several paragraphs.

Of the 34 respondents, 32 obtained a commercial loan at the bank and only 2 of the 34 respondents are no longer operating their business. The average number of years in business for this sample was three + years at the

time the survey was taken, with six years being the maximum. According to the national average, 27% of businesses fail by the end of the third year and 42% fail by the end of the fourth year.[7] It can be safely assumed that this sample would have more thorough projections than a random sample because of a commercial bank's involvement and the bank's requirements for an in-depth analysis. As of December 31, 1988, this bank had over $900,000,000 in assets and over $300,000,000 in commercial loans outstanding. It is a subsidiary of a $21 billion corporation. Knowing this, it can be inferred that a random sample would show a poorer average performance.

The following is a description of the businesses based on the background data given in answer to the survey questions.

Here is a percentage breakdown of respondents by type of business:

Retail	32%
Wholesale	53
Service/Professional	6
Manufacturing	6
Other	3
TOTAL	**100%**

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[7]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation), 1984, 1-1.

The percentage breakdown of businesses by dollar volume of gross sales:

Gross sales	Percentage
$ 0 to 250,000	44%
250,001 to 500,000	12
500,001 to 1,000,000	9
over 1,000,000	15
TOTAL	**100%**

Retail and service/professional describes the type of businesses owned by 85% of the respondents. Gross sales under $250,000 is characteristic of 44% of those surveyed. Previous work experience is a qualification of 82% of the respondents. Half of the business owners have been a general partner in a business before. For 74% of those surveyed, this was the first time they were majority owners in a business. Half of the businesses were previously established and half were newly established.

Twenty-eight had prepared formal written projections. There were several business owners who obtained bank loans and did not have written projections. In these cases (and perhaps others also), the bank was not relying on the profits of the business to pay back the loan. Instead, the primary source of repayment was either (1) certificates of deposit as collateral or (2) the strength of the owner's personal financial position.

FINDINGS

This financial survey is measuring how close the entrepreneurs' projections were to their actual performance in their first full year in business. Following are highlights of the findings (rounded to the nearest 1%).

Q. *Your actual sales were above, below or equal to projected sales in your first year? By what percentage?*

Actual Sales vs. Projected	% Respondents Above Projections	% Respondents Below Projections
0-10%	15	15
11-20	15	12
21-30	6	12
31-40	0	0
41-50	3	6
over 50	6	12

Q. *Give the reason which best explains the variations from the sales projections. Rank three.* (Refer to questionnaire for multiple choices given.)

The following three answers carried the most weight in the responses with the first being the most significant.

1) Insufficient marketing research
2) Change in competition
3) Overall state of the economy

Forty-five percent (45%) of the respondents said they were 0 to 30% below projection on sales. Thirty-nine percent (39%) were above sales projections. The author had a follow-up question asking why their projections differed from their actual sales. The *number one* answer was insufficient marketing research. In hind-sight, most business owners said they should have spent more time researching the business, identifying the total market in terms of dollar volume and unit sales. Then, they would have looked more closely at what percentage or share of the market they could expect to capture. Entre-

preneurs who purchased existing businesses commented that they would try to obtain a good understanding of who the customers were under the previous owners. Then they would sort out potentially lost customers, as well as identify potential new customers.

The *number two* answer in explaining variations from projections is change in competition. This could refer to a number of different situations. For example, there could be one more or one less competitor in the same territory from the time the business was purchased. Perhaps a competitor started to stay open longer hours after the entrepreneur made his/her projections. Perhaps a competitor decided to cut prices in effort to keep the entrepreneur from gaining market share or to put him/her out of business.

The *number three* answer was overall state of the economy. An example would be how a drought in an agriculturally dependent community can affect the sales of an automobile dealer.

Q. *Your actual gross margin (as a percent of sales) was above, below or equal to projections? By what percentage?*

Actual gross margin vs. projections	% Respondents Above Projections	%Respondents Below Projections
0-10%	3	56
11-20	12	9
21-30	3	6
31-40	0	9
41-50	3	3
over 50	0	3

Gross margin is the difference between sales and cost of goods sold. It is often expressed as a percentage. Gross margin plays an extremely important

role with respect to the bottom line. In general, the respondents did a very good job in their projections of gross margin. Fifty-nine percent (59%) were within ten percent (10%) of projections and seventy-one percent (71%) were within twenty percent (20%) of projections. Retailers can generally identify the difference between the suggested retail price and their cost. What's more difficult is to estimate the average gross margin after sales mark downs are averaged in.

Q. *Your actual operating expenses were above, below, or equal to projections/By what percentage?*

Actual operating expenses vs. projections	% Respondents Above Projections	%Respondents Below Projections
0-10%	50	0
11-20	35	0
21-30	3	0
31-40	0	0
41-50	0	0
over 50	12	4

Q. *Which operating expense accounts had the most significant variations from projections? Rank three.*

The following three answers carried the most weight in the responses with the first being the most significant.

1) Salaries
2) Supplies
3) Interest
4) Advertising — tied

It's interesting to know that none of the respondents spent less on operating expenses than projected. Not a one! That should tell something! As

it shows above, 50% were within 10% of projections, 85% were within 20%, and 88% were within 30%. Note that 12% of the respondents underestimated operating expenses by over 50%.

In what areas were the entrepreneurs off the most? The *number one* answer to this question was salaries and payroll taxes. Entrepreneurs commented that they had not planned on hiring as much help as they did. They needed more time for administrative duties and had less time for direct sales involvement. Also, many had not allocated enough for unemployment compensation, social security, workman's compensation, and other benefits.

The *number two* answer for the most significant variation in expense accounts was supplies. Entrepreneurs advised doing a detailed checklist of supply items needed, price them and build in a price increase.

Finally, interest expense and advertising tied for the *number three* answer. Many entrepreneurs end up borrowing more money than they planned because they end up spending more than they planned. Also, it is normal for lenders to use a variable rate of interest. This makes it especially difficult to project interest expense. Advertising is a science in itself. It takes experience and education to arrive at an efficient and productive advertising plan. If the entrepreneur isn't confident in his/her plan, then he/she will tend to go in whatever direction the strongest advertising salespeople lead them.

Q. *Your actual net profit was above, below or equal to projections? By what percentage?*

(results on following page)

Actual net profit vs. projections	%Respondents Above Projections	%Respondents Below Projections
0-10%	9	44
11-20	0	6
21-30	3	12
31-40	0	6
41-50	3	0
over 50	6	12

Overall, this group of respondents did an excellent job in projecting net profit. Fifty-three percent (53%) were within ten percent (10%) of projections. Approximately 80% were below projections and approximately 20% were above projections. It can be safely assumed this sample would show a better performance than a true random sample of entrepreneurs. Reasons are stated on pages 4 and 5, Chapter 2.

The final question on the survey asked the entrepreneurs to speak from experience and share a word of advice. Following is a list of short answers provided by the respondents.

Q. *In summary, what financial advice would you give to someone who is planning to go into business for themselves? What are the greatest obstacles? What are the greatest opportunities?*

Research. Research. Research. Go slow before deciding to embark on a venture. Employ experts to evaluate data. Money spent on them may save a poor decision. Minimize risk through legal means. Have cash reserve for additional required expense.

Don't start undercapitalized.

Completely research the business.

Visit with other proprietors in the area to develop a feel for the market. Be liberal about using professional services to set up your business.

Make sure you know how much it is going to take for operations, cash flow and reserve for purchases needed. As a sole proprietor, one cannot expect to reap off the top and still make a go of it. I found I could not take a salary home for a period of 6 to 9 months and then a very minimum salary. I kept putting all earnings back into the business. The greatest obstacle was to anticipate future growth based on the turn of the economy, when to hold back and when to be optimistic. One's own business demands every minute of time, seven days a week, and budgeting time for other things becomes very difficult.

Don't go into anything you're not familiar with. Stay with a business you know. Watch out for crooked people - they will take advantage of you.

Accurate cash flow projections and sufficient capital injections are the most important areas.

Don't be too optimistic. Have adequate sources of funding. Be prepared to accept disappointment when projections don't pan out. Be prepared to change business strategy when necessary. Be prepared to give up much of your free time to devote to the business. Be prepared to lose your investment.

Begin with a good solid plan with a lot of "what ifs?" and options. Constantly change this to fit you and your market. Work with financial institutions, other experts in your field and experts in interrelated fields. Tap their experience and innovation to plan

solid ventures, keeping in mind that "NO" may sometimes be the best answer. Initial start up costs were more than double what was planned even after extensive research. After three years, personal income still hasn't reached a desirable level. Carefully study cash flow - not just as predicted, but realistically. Budget where you can and stick to it.

Be sure you have sufficient operating capital. Do a complete market study. You will have to carry a specific percentage of that market to succeed. Be realistic. Do a careful study of costs and then realize your best estimate is probably at least 10% low.

Be prepared for apathy.

Keep debt burden to a minimum. Keep purchases and tangibles to a minimum and expand gradually as growth in business permits.

Be willing to work 12 to 14 hours a day. Know where every dollar is coming from and going. Get involved in the business community. Volunteer and be active in as many organizations you can fit in your schedule without harming your business. Have an understanding and knowledgeable banker willing to ride with you. In addition, have and develop quality help. The greatest opportunity is meeting your goals while providing for your future and the future of the families of your employees. There is a feeling of independence and knowing success or failure comes from your direction. It is a privilege to have your own business and should be treated with a great deal of respect.

To summarize the advice from the entrepreneurs, allow plenty of time to research the business thoroughly, don't start undercapitalized, and prepare financial projections.

CHAPTER 3

THE BUSINESS PLAN AND LOAN REQUEST

Over and over again, the entrepreneurs surveyed supported the benefits of having a written business plan before opening the doors.. A properly developed business plan serves three main functions:

- A tool to communicate your ideas, research and plans
- A basis for managing your business
- A standard for measuring progress and evaluating changes[8]

For the majority who need to borrow money to operate, a well written business plan is the most convincing piece of information to a banker. A complete business plan which includes a loan proposal will give the impression that the borrower knows where he/she is heading and is in control.

HOW TO DEAL WITH BANKERS

> "You've heard it all before. You go into the bank, ask for a loan and the banker says, 'fine, where's your collateral?' You say, 'if I had a bunch of collateral I wouldn't be here in the first place,' and so it goes. It's been said that 'a banker is someone who lends you an umbrella when the sun is shining, and takes it away when it starts to rain.' Ted Frost, in his book, 'Where Have All the Wooly Mammoths gone?' put it this way - 'I've often thought if I could collect all the nations' bankers in a big gunny sack out in the middle of the ocean that I would jump overboard with the sack and sacrifice myself just to rid the world of them."

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[8]American Institute of Small Business, How To Set Up Your Own Small Business, Volume II, 1984, p. 18-2.

There is a better way to deal with your banker than that. Most frustration and loan turn-downs are the result of poor communication and limited knowledge. The banker lacks knowledge about your business, needs and goals. The entrepreneur lacks knowledge of the bankers policies, procedures and constraints.[9]

When requesting a loan, think of it as a challenge in salesmanship. The borrower needs to educate the banker about his/her business, providing all the information he/she would to a prospective partner. The bank is investing in the owner and his/her business. Groom the relationship with your bank by keeping your banker informed. Banking is a business of people, of mutual confidence and integrity.[10]

The first step in this process is to submit a business plan. Here is a suggested outline:

I. **Loan Request**

What the loan proceeds will be used for
Dollar amount requested
Term desired
Sources of repayment
Collateral listing and collateral values

II. **Business Description**

Brief description of the company, location, and facilities
Description of the products and/or services sold
Business goals

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[9]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation), 1984, p. 61.

[10]Gordon B. Baty, Entrepreneurship for the Eighties. (Reston, Virginia: Reston Publishing Co., Inc., 1981), p. 117.

III. **Management**

Organizational chart
Age, experience and education of key managers

IV. **Market Analysis**

Market size and trends
Target market
Estimated market share (percentage and dollars)
Competition

V. **Marketing Strategy**

Product line
Pricing
Promotion
Distribution

VI. **Financial Information**

Three years financial statements and tax returns
Financial projections (for at least one year):
Proforma balance sheet
Proforma income and expense statement
Proforma cash flow
Explanation of projections and assumptions
Analysis of key business ratios
Personal financial statement and tax return[11]

The banker is bound to react with a complimentary and positive response. Why? Because only about 1% of the bank's customers ever come so well prepared.[12]

In chapters 4 and 5, the focus will be on financial projections. The proforma balance sheet and proforma income statement are fundamentally important to your overall business plan.

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[11]Kenneth W. Olm and George G. Eddy, Entrepreneurship and Venture Management (Columbus, Ohio: Charles E. Merrill Publishing Company), 1985, p. 76,77.

[12]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation), 1984, p. 63.

CHAPTER 4

PRO FORMA INCOME STATEMENT

The pro forma income statement centers around projected sales for the forecast period. Many things should be taken into consideration including:

1) previous sales levels and trends
2) overall state of the economy
3) competition
4) population growth and demographics
5) plant capacity if applicable
6) financial constraints
7) pricing
8) availability of raw materials/suppliers[13]

There will be other factors specific to each business which will need consideration. The amount of research and the degree of detail and accuracy needed will vary; it will depend on whether "the juice is worth the squeeze". Balance time and labor involved in analyzing the data against the consequences of deviating from plan.[14]

Once the sales forecast is determined, the next step is to project expenses. Cost of goods sold is normally based upon a percentage of sales. General and administrative expenses are forecasted using previous years' experience and adjusted for new factors.

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[13]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation), 1984, p. 37.

[14]Eric Helfert, Financial Forecasting, class discussion notes prepared for Harvard Business School, 1960.

Exhibit 1 on page 19 for the Orville Paint Company shows four years of actual financial performance and a forecast for year five. The fifth year is a pro forma income statement. Here is an example of comments explaining the assumptions underlying the forecasts.[15]

SALES: 5% increase over year four even though the trend has been negative. This year, there is one less major competitor, so sales should improve. Economy is still weak. A small price increase is planned - less than 3%.

COST OF GOODS SOLD/GROSS MARGIN: Last year, cost of goods sold was 77.5% of sales, whereas the industry as a whole averaged 71.0%. Gross margin was 22.5% and the industry made 29%. Plan to reduce cost of goods to 76.3% of sales, putting gross margin at 23.8%.

GENERAL AND ADMINISTRATIVE EXPENSES: Last year, G & A expenses were down because the company temporarily operated with one less employee for five months. Anticipate bank borrowings to increase by $12,000 and interest rates to be higher by 1% on the average. Extensive repairs to the heating and cooling system and some remodeling is planned. Inflation rate of 5% assumed.

OTHER INCOME: $3,000 income on lease contracts

NET PROFIT AFTER TAXES: Up $2,000 over last year, but still considerably below the industry average. Continue to search for ways to improve profits and cash flow.

Another step in the financial planning process is the development of a cash budget or cash flow statement. It will not be discussed in depth in this

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[15]Ibid.

EXHIBIT 1

INCOME STATEMENT

ORVILLE PAINT COMPANY
(IN 000s)

	YR 1	YR 2	YR 3	YR 4	Pro Forma YR 5
SALES	3,000	2,500	2,200	2,000	2,100
LESS COST OF GOODS SOLD	2,360	1,900	1,700	1,550	1,600
GROSS MARGIN	640	600	500	450	500
GENERAL & ADMINISTRATIVE EXPENSE	617	589.3	492.2	452.8	499.5
TOTAL OPERATING EXPENSE	617	589.3	492.2	452.8	499.5
OPERATING PROFIT	23	10.7	7.8	(2.8)	0.5
OTHER INCOME	0	2	6	4	3
NET INCOME BEFORE TAX	23	12.7	13.8	1.2	3.5
INCOME TAX	3	1	1.8	0.2	0.5
NET INCOME AFTER TAX	**20**	**11.7**	**12.0**	**1.0**	**3.0**

study, but can be very important to the financial health of a business. For example, a company can be profitable and insolvent at the same time, so cash flow deserves attention.[16].

A cash flow statement is similar to the income and expense statement except that only cash items are accounted for. A cash flow statement is usually done on a month by month basis. It will show how much money will need to be borrowed, when the loan will be needed and how it will be paid back. Do these sound like answers to questions a banker would ask? If an entrepreneur provides a cash flow statement to the bank even before the bank asks for it, that entrepreneur will be off to an impressive start at the bank. Few businesses go to the effort of preparing a cash flow statement and yet the benefits usually far outweigh the costs.[17]

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[16]Steven R. Brandt, Entrepreneuring: The Ten Commandments for Guiding a Growth Company. Reading, Massachusetts: Addison Wesley Publishing Co., 1982. p. 78,79.

[17]Ibid.

CHAPTER 5

PRO FORMA BALANCE SHEET

A pro forma balance sheet is a forecast of what the company's assets, liabilities and net worth will be at a future date.

Refer to Exhibit 2 on page 23 for a typical balance sheet spread of an ongoing business. The first four years are actual and the fifth year is a forecast. To prepare a pro forma balance sheet for year five, the following steps will be helpful.

STEP 1: Identify assets which will vary with sales, i.e. cash, accounts receivable, inventory.

STEP 2: Identify liabilities which will vary with sales, i.e. accounts pay able.

STEP 3: Relate each item identified in steps 1 and 2 to the most recent sales level ($2,000,000).

STEP 4: Apply the percentage to the sales projection for year five ($2,100,000). For example, accounts receivable is 10.8% of sales in year four. Therefore, 10.8% x $2,100,000 of sales in year five is $226,000. Adjustments should be made if there are other known factors such as a change in the company's policy on charge ac counts.

STEP 5: Enter the fixed assets and mortgages payable sales of fixed assets.

STEP 6: Calculate the new net worth.

Net worth year four + Net income year five = Net worth year five

STEP 7: Complete the balance sheet using notes payable as a plug figure to balance.[18]

Going through the calculations to do this forecast shows that the company will need $27,000 more in assets and $12,000 more in bank debt in year five.

By forecasting your company's bank debt requirement, you will have time to make arrangements at the bank ahead of time. A last minute loan request does not impress a banker. Good financial management does.

In Chapter 6, numbers from the balance sheet and income statement will be used to arrive at financial ratios. Industry ratios will be used to compare a particular business (Orville Paint Company) to the average ratios of paint manufacturing companies of its size.

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[18]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business. 5th ed., (Minneapolis, Minnesota: Norwest Corporation, 1984), p.45.

EXHIBIT 2

BALANCE SHEET

ORVILLE PAINT COMPANY
(IN OOOs)

	YR 1	YR 2	YR 3	YR 4	Pro forma YR 5
ASSETS					
Cash	30	62	33	53	55
Accounts Receivable	201	260	192	215	226
Inventory	475	425	390	330	347
Prepaid Expense	32	10	1	17	17
Total Current Assets	738	757	616	618	645
Land & Buildings, net	145	148	300	320	320
Other Assets	30	31	35	20	20
Total Assets	913	936	951	958	985
LIABILITIES					
Accounts Payable	225	250	255	260	273
Notes Payable-banks	85	80	100	120	132
Other Current Liabilities	32	44	27	28	29
Total Current Liabilities	342	374	382	408	434
Mortgages Payable	190	170	165	145	145
Total Liabilities	532	544	547	553	579
EQUITY					
Common Stock	200	200	200	200	200
Retained Earnings	181	192	204	205	206
Total Net Worth	381	392	404	405	406
Total Liabilities and Net Worth	**913**	**936**	**951**	**958**	**985**

CHAPTER 6

FINANCIAL STATEMENT ANALYSIS

This chapter will show how numbers from the balance sheet and income statement are used to calculate key financial ratios and explain what the ratios mean. These ratios can be compared to industry averages to help identify strengths and weaknesses in a company. Refer to Exhibits 1, 2, and 3 on pages 29-31 for the Orville Paint Company. Each of the ratios are computed in the illustration.

There are a number of sources which have industry ratios available including:

"Industry Norms and Key Business Ratios", Dun & Bradstreet, Inc., 99 Church Street, New York 10007

"Annual Statement Studies", Robert Morris Associates Credit Division, Philadelphia National Bank Building, Philadelphia, Pennsylvania 19107

"Expenses in Retail Business", NCR Corporation, Customer and Support Education, Special Order Department, Dayton, Ohio 45479

Annual Statement Studies by the Robert Morris Associates Credit Division is the source of industry ratios used in this study.

There are four financial areas that will be measured by ratios in this study: (1) Solvency (2) Safety (3) Profitability and (4) Asset Management.[19]

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[19]David A. Duryee and David A. Enger, Financial Management for the Closely Held Business, 5th ed., (Minneapolis, Minnesota: Norwest Corporation), 1984.

SOLVENCY RATIOS

CURRENT RATIO

Calculation: $\frac{\text{Total current assets}}{\text{Total current liabilities}}$

This ratio is an indicator of the firm's ability to meet its current obligations. The higher the ratio, the stronger the current financial position (assuming the quality of the current assets is good).[20]

QUICK RATIO

Calculation: $\frac{\text{Cash + equivalents + net trade receivables}}{\text{Total current liabilities}}$

This ratio is also an indicator of the company's ability to meet its short term obligations. It measures the degree to which a company's current liabilities are covered by the most liquid current asset.[21]

SAFETY RATIO

DEBT TO WORTH

Calculation: $\frac{\text{Total liabilities}}{\text{Tangible net worth}}$

This ratio points out the relationship between the capital invested by the owners and the capital provided by the creditors. The lower the ratio, the lower the risk is to the creditors and the greater the ability to borrow more money.[22]

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[20]Robert Morris Associates, Annual Statement Studies. (Philadelphia, Pennsylvania: Robert Morris Associates Credit Division, 1988), 8-13.

[21]Ibid.

[22]Ibid.

PROFITABILITY RATIOS

GROSS MARGIN RATIO

Calculation: $\frac{\text{Gross Profit}}{\text{Sales}}$

This ratio is expressed as a percentage. Gross profit is sales minus the cost of goods sold. The higher the number, the less cost of good sold takes out of sales revenue. Gross margin is synonymous with gross profit.[23]

NET PROFIT RATIO

Calculation: $\frac{\text{Net Profit Before Taxes}}{\text{Sales}}$

This ratio is also expressed as a percentage. It shows what percentage of sales revenue is profit after all expenses are paid, with the exception of income taxes.[24]

ASSET MANAGEMENT RATIOS

SALES TO ASSETS

Calculation: $\frac{\text{Net sales}}{\text{Net fixed assets}}$

This ratio signifies the ability to generate sales in relation to the assets available to the company. This ratio varies greatly from industry to industry, so use it for comparison only within a specific industry.[25]

RETURN ON ASSETS

Calculation: $\frac{\text{Profit before taxes}}{\text{Total assets}} \text{ x } 100$

This ratio is multiplied by 100 since it is commonly shown as a percent-

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[23]Ibid.

[24]Ibid.

[25]Ibid.

age. It is the rate of return on the total assets and measures management's effectiveness in utilizing all available resources. Ratios may very significantly if, for example, one company has depreciated out the majority of its fixed assets compared to a company that has taken little depreciation. The analyst should examine the type of assets and make-up of the earnings.[26]

RETURN ON EQUITY

Calculation: $\frac{\text{Profit before taxes}}{\text{Tangible net worth}} \times 100$

This ratio is multiplied by 100 since it is commonly shown as a percentage. It is the rate of return on the tangible capital invested by the owners and is used to evaluate management performance.[27]

INVENTORY TURNOVER

Calculation: $\frac{\text{Cost of sales}}{\text{Inventory}}$

This ratio measures the number of times inventory turns over one year. A high turnover rate may be because of poorly managed merchandising. On the other hand, it may indicate that inventory is too low to maximize sales and profits. A loan inventory turnover may indicate overstocking or obsolete inventory or perhaps planned inventory build-up in anticipation of future shortages.[28]

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[26]Ibid.

[27]Ibid.

[28]Ibid.

INVENTORY DAYS

Calculation: $\frac{365}{\text{Cost of sales to inventory ratio}}$

This ratio tells the average number of days units are in inventory before they are sold.[29]

ACCOUNTS RECEIVABLE TURNOVER

Calculation: $\frac{\text{Net sales}}{\text{Net trade receivables}}$

This is a measure of the number of times receivables turn over in the year.[30]

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[29]Ibid.

[30]Ibid.

EXHIBIT 1

INCOME STATEMENT

ORVILLE PAINT COMPANY
(IN 000s)

	YR 1	YR 2	YR 3	YR 4	Pro Forma YR 5
SALES	3,000	2,500	2,200	2,000	2,100
LESS COST OF GOODS SOLD	2,360	1,900	1,700	1,550	1,600
GROSS MARGIN	640	600	500	450	500
GENERAL & ADMINISTRATIVE EXPENSE	617	589.3	492.2	452.8	499.5
TOTAL OPERATING EXPENSE	617	589.3	492.2	452.8	499.5
OPERATING PROFIT	23	10.7	7.8	(2.8)	0.5
OTHER INCOME	0	2	6	4	3
NET INCOME BEFORE TAX	23	12.7	13.8	1.2	3.5
INCOME TAX	3	1	1.8	0.2	0.5
NET INCOME AFTER TAX	20	11.7	12.0	1.0	3.0

EXHIBIT 2

BALANCE SHEET

ORVILLE PAINT COMPANY
(IN OOOs)

					Pro forma
	YR 1	YR 2	YR 3	YR 4	YR 5
ASSETS					
Cash	30	62	33	53	55
Accounts Receivable	201	260	192	215	226
Inventory	475	425	390	330	347
Prepaid Expense	32	10	1	17	17
Total Current Assets	738	757	616	618	645
Land & Buildings, net	145	148	300	320	320
Other Assets	30	31	35	20	20
Total Assets	913	936	951	958	985
LIABILITIES					
Accounts Payable	225	250	255	260	273
Notes Payable-banks	85	80	100	120	132
Other Current Liabilities	32	44	27	28	29
Total Current Liabilities	342	374	382	408	434
Mortgages Payable	190	170	165	145	145
Total Liabilities	532	544	547	553	579
EQUITY					
Common Stock	200	200	200	200	200
Retained Earnings	181	192	204	205	206
Total Net Worth	381	392	404	405	406
Total Liabilities and Net Worth	**913**	**936**	**951**	**958**	**985**

EXHIBIT 3

ORVILLE PAINT CASE ANALYSIS

FINANCIAL RATIOS

	YR 1	YR 2	YR 3	YR 4	IND AVG
SOLVENCY					
Current ratio	2.2	2.0	1.6	1.5	2.1
Quick ratio	0.8	0.9	0.6	0.7	1.0
SAFETY					
Debt to Worth	1.40	1.39	1.35	1.37	1.00
PROFITABILITY					
Gross Margin %	21.3	24.0	22.7	22.5	29.0
Net Margin %	0.8	0.5	0.6	0.1	4.1
ASSET MANAGEMENT					
Sales to Assets	3.3	2.7	2.3	2.1	2.3
Return on Assets %	2.5	1.4	1.5	1.3	9.0
Return on Equity %	6.0	3.0	3.4	0.3	19.4
Inventory Turnover	6.3	5.9	5.6	6.1	4.9
Inventory Days	57	62	64	59	74
Accounts Receivable Turnover	14.9	9.6	11.5	9.3	8.9
Collection Period	24	38	31	39	41

The ratios give us a closer look. For example, current assets and accounts receivable levels are trending downward and the level of bank debt is gradually increasing.

Debt is above the industry average as indicated in the solvency and safety ratios. The profitability ratios point out that Orville Paint Company is significantly below the industry in gross profit percentages as well as net profit margin percentages. The asset management ratios indicate strengths in inventory turnover and accounts receivable turnover. Efficient utilization of assets is reflected in the sales to assets ratio in year one, but has gradually deteriorated and fallen below the industry average in year four. Return on assets and return on equity (investment) are weak in comparison to the industry. A picture of the company is beginning to develop.[31]

The next step is to find out WHY these ratios are strong or weak in comparison to the industry. Identify what corrective steps are needed and implement them. Develop goals and strategies to achieve desirable performance and monitor your progress regularly.[31]

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[31]Robert Morris Associates, Commercial Loans to Businesses. San Francisco, California: Omega Performance Corporation, 1984. 64.

CHAPTER 7

SUMMARY

In summary, successful businesses are more likely to have formal written business plans such as outlined in Chapter 3. The survey of North Dakota entrepreneurs (discussed in Chapter 2) provides valuable insight on financial performance in their first full year in business. The focus of the survey is on comparisons between first year forecasts and actual results.

Almost half of the entrepreneurs surveyed were above sales projections in their first year of business, but only 20% of them were above profit projections. None of the entrepreneurs were below operating expense projections.

What best explains the variations from sales projections? Entrepreneurs responded most often by stating that their marketing research was insufficient. This answer was given more significance than change in competition, change in pricing policy, overall state of economy, or even change in the amount of investment in the business.

The survey also asked entrepreneurs to rank three operating expense accounts which attributed to the greatest variations from projections. The two that carried the most weight are (1) salaries and payroll taxes and (2) supplies. Interest expense and advertising costs tied for third place.

The following advice from the entrepreneurs was repeated over and over again:

- Research the business thoroughly.
- Prepare financial projections, address what ifs.
- Don't start undercapitalized.

This information is very helpful and encouraging. By devoting more

time and effort to researching sales projections and operating expense projections, business risk can be significantly reduced. More power to the entrepreneur to reap his/her rewards!

There is a myriad of other valuable matters pertaining to the launch of a successful enterprise. A wealth of information is available. Sources such as Small Business Administration, bankers, lawyers, accountants, insurance agents, college faculty and trade association have much to offer. Taking time to "be a good manager" turns the odds of being a success in the entrepreneur's favor. The entrepreneurial spirit has a quest for knowledge, excitement and challenge. Entrepreneurs are creative and ambitious and they play an important role in the economic growth of our nation. The opportunities are out there waiting...

APPENDIX A

943 26th Street NW
Minot, ND 58701

RE: FINANCIAL SURVEY OF YOUR FIRST FULL YEAR IN BUSINESS

Dear

You have been selected to represent entrepreneurs in North Dakota who have either (1) purchased an existing business within the last six years or (2) started a new business within the last six years.

The two page survey is designed so you can complete it quickly and easily -- probably within 10 minutes. Please return the completed survey in the enclosed self-addressed stamped envelope at your earliest convenience. I am working toward my Master's degree in Business Administration from the University of North Dakota. This research project will be used in my thesis.

As you know, there are many obstacles as well as opportunities for entrepreneurs. The information you share about the differences between your first full year financial projections and your actual income and expenses is strictly confidential. Your answers will be combined with many others for statistical analysis and your name will not be revealed in any way. I'm anticipating some interesting results and hope that the information will encourage additional research. If you would like a copy of the survey results, please include a self-addressed envelope with your questionnaire. Your efforts and cooperation are much appreciated.

Thanking you in advance,

Janna L. Rohrer
UND Graduate Student

APPENDIX B

Please place a checkmark on the appropriate line except when asked for rankings in questions 8c and 10c.

BACKGROUND DATA

1a. Type of business

___Retail
___Wholesale
___Service/Professional
___Contractor
___Manufacturing
___Other___________

b. Gross sales

___0 to $250,000
___$250,001 to $500,000
___$500,001 to $1,000,000
___over $1,000,000

2. Your age when you started your business

___21 to 30
___31 to 40
___41 to 50
___over 50

3. Did you have previous work experience in your field of business? ___Yes ___No

4. Have you been a general partner (full personal liability) in a business? ___Yes ___No

5. Have you been a majority owner in a business before? ___Yes ___No

6. Did your business have a previous owner? ___Yes ___No

7. Prior to opening your business, did you prepare formal written projections of sales and profits? ___Yes ___No

FINANCIAL PROJECTIONS OF YOUR FIRST FULL YEAR IN BUSINESS

8a. Your actual sales were above, below or equal to projected sales in your first year?

___above
___below
___equal to

b. By what percentage?

___0-10%
___11-20%
___21-30%
___31-40%
___41-50%
___over 50%

c. Give the reason which best explains the variations from projections.
Rank 3 in order of significance with 1 being the most significant.

___ insufficient marketing research
___ change in pricing policy
___ availability of goods
___ change in competition
___ change in the amount of investment in the business
(i.e. staff size, inventory levels, advertising, physical space)
___ overall state of the economy
___ other___________________________________

9a. Your actual gross margin (as a percent of sales) was above, below or equal to projections?

___above
___below
___equal to

9b. By what percentage? (example: Gross margin projection was 30%. Actual gross margin was 27%. Answer: 3 ÷ 30 = 10%)

___0-10%	___21-30%	___41-50%
___11-20%	___31-40%	___over 50%

10a. Your actual operating expenses were above, below or equal to projections?

___above ___below ___equal to

b. By what percentage:

___0-10%	___21-30%	___41-50%
___11-20%	___31-40%	___over 50%

c. Which accounts had the most significant variation? Rank 3 in order of significance with 1 being the most significant.

___ salaries and payroll taxes
___ rent
___ utilities
___ interest
___ insurance
___ advertising
___ professional fees
___ supplies
___ repairs
___ other______________________________

11a. Your actual net profit was above, below or equal to projections?

___above ___below ___equal to

b. By what percentage?

___0-10%	___21-30%	___41-50%
___11-20%	___31-40%	___over 50%

12. In summary, what financial advice would you give to someone who is planning to go into business for themselves? What are the greatest obstacles? What are the greatest opportunities? (Please use the back side of the page if needed.)

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