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A DO-IT-YOURSELF FEASIBILITY STUDY:

New Retail Ventures

Canadian
Aboriginal
Economic
Development
Strategy

Stratégie
canadienne de
développement
économique des
Autochtones

Canada



A DO-IT-YOURSELF FEASIBILITY STUDY:

New Retail Ventures

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SECTOR

Services

Retail

SECTEUR

Services

Commerce de détail

This book is one of a series of five business feasibility guides written and prepared by The Manitoba Institute of Management Inc. They have been produced through funding from Industry, Science and Technology Canada for the Research and Advocacy Program of the Canadian Aboriginal Economic Development Strategy, and are designed to assist Aboriginal people across Canada to assess possible business opportunities. The titles in the series are:

- Retail Ventures
- Construction/Contracting Ventures
- Motel/Hotel/Resort Ventures
- Restaurant Ventures
- Manufacturing Ventures

These guides are available by contacting an Aboriginal Business Development Program Officer in your region about your proposed business project.

THIS FEASIBILITY GUIDE IS DESIGNED TO ASSIST THE READER TO DEVELOP A SOUND NEW VENTURE FEASIBILITY ANALYSIS, BUT CANNOT GUARANTEE EITHER SUCCESS IN OBTAINING FINANCIAL ASSISTANCE OR SUCCESS IN BUSINESS.

NOTE THAT THE EXAMPLES USED ARE NOT OF ANY ACTUAL BUSINESS AND ARE PROVIDED SOLELY FOR THE PURPOSES OF EXPLAINING THE ELEMENTS OF A FEASIBILITY STUDY.

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Appendix I PRESENTATION FORMAT SHEETS

HELPING YOU TO HELP YOURSELF

■ WHAT THIS BOOK IS ALL ABOUT

As a businessperson with a new venture idea, it's very likely that you're prepared to take some risk and to make some serious financial commitments. Probably, you will be asking others to share these risks if you intend to get the venture off to a good start. The big question in everyone's mind; "*Is the venture feasible?*"

How do you find out? Some people never take the time to do the necessary investigations and they find themselves in financial difficulties that could have been avoided. Still others are lucky enough to make a go of it in spite of not having done their homework first. There is still another group that would like to do an analysis on their own but they don't know how to go about working out a venture feasibility study.

If you're in the last category, this workbook will help.

■ HOW THIS BOOK HELPS

This book is one tool available to you to help analyse and assess your idea. Whether or not you call on the help of professionals such as accountants, bank managers, consultants, or lawyers, the basic knowledge provided in this book will help you avoid financial problems in the future.

Before you go ahead with any new venture you will have to find answers to two basic questions.

- (1) Is the idea workable?
- (2) If it's workable, will it be profitable?

To help you find answers to these questions, this guide takes you through a sequence of important questions and answers.

| Section A MARKET FEASIBILITY | |
|---|--------------------------------|
| QUESTIONS | ANSWERS |
| 1. How many people need this type of product? | Step 1: Total Market Potential |
| 2. How much of this product can I sell? | Step 2: Market Share |



| Section B OPERATING FEASIBILITY | |
|---|---|
| QUESTIONS | ANSWERS |
| 1. What type of building, fixturing, and other equipment do I need? | Step 3: Building, Fixturing, and Equipment Requirements |
| 2. How much will I have to pay for merchandise? | Step 4: Cost of Merchandise |
| 3. What cash expenses will I have to meet? | Step 5: Calculation of Cash Operating Expenses |
| 4. What other expenses do I have to allow for? Will I have to borrow money? | Step 6: Budgeting for Other Expenses |



| Section C FINANCIAL FEASIBILITY | |
|---|-----------------------------|
| QUESTIONS | ANSWERS |
| 1. After paying all expenses, how much do I make? | Step 7: Sales Less Expenses |



| Section D VENTURE FEASIBILITY | |
|--|------------------------------|
| QUESTIONS | ANSWERS |
| 1. Is it worthwhile? | Step 8: Return on Investment |
| 2. Should I go ahead with the venture? | Step 9: Final Decision |

This sequence of questions and answers covers what is commonly called a feasibility study. It guides you in gathering specific information so that in the end you will be in a position to say whether or not the idea is feasible.

■ STEPS IN PREPARING A FEASIBILITY STUDY

There are four major parts in the preparation sequence, each with its own set of questions:

- Section A: MARKET FEASIBILITY
- Section B: OPERATING FEASIBILITY
- Section C: FINANCIAL FEASIBILITY
- Section D: VENTURE FEASIBILITY

For each question an answer guide and an example is provided to help you analyze the information. Numbers which appear in the left-hand margins of the example pages correspond respectively to the numbered instructions in the previous answer guide to show you how to apply the suggested methods to your own venture. At various points throughout the workbook you will be instructed to record your answers on a worksheet (example, page 75; blank, page 77). The completed worksheet will tie each step of the analysis together in the form of a profit and loss and cash flow statement.

A summary of the work will also be completed at the end of each section. Blank Presentation Format Sheets are provided as an Appendix to the workbook for the preparation of your presentation to banks, potential venture partners, and other interested parties.

SECTION A
MARKET FEASIBILITY

SECTION A
MARKET FEASIBILITY
STEP 1: TOTAL MARKET POTENTIAL

■ QUESTION I

"How many people need this type of product?"

There are several ways to answer this question. The method you choose will depend upon the location of your proposed business and the information that you can obtain.

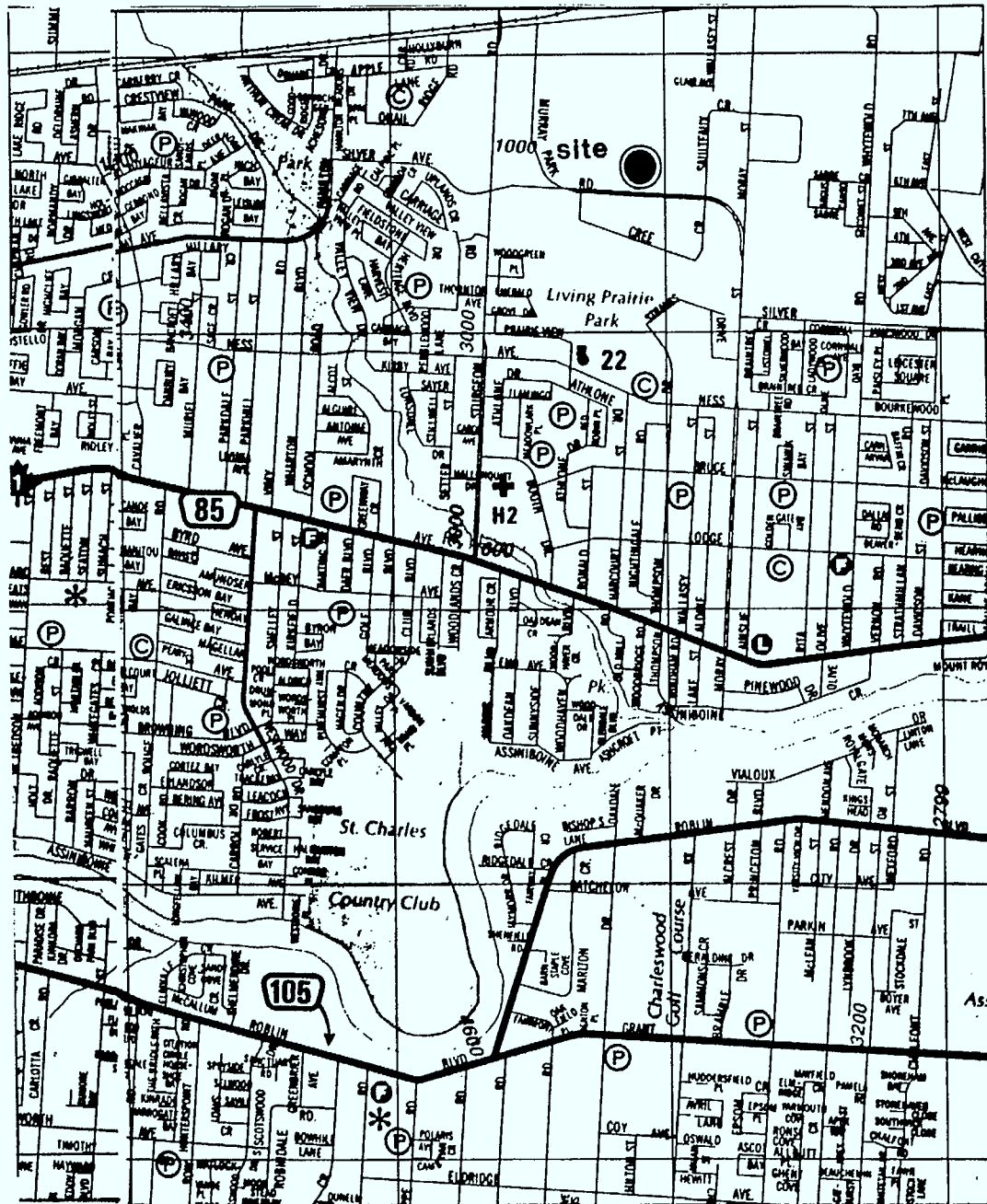
■ ANSWER GUIDE

Follow these steps to help you arrive at an answer.

- (1) Determine the market area. Where do your primary customers live? You should be able to estimate the boundaries of the market area by talking to other businessmen now located in the area.
- (2) Prepare a population forecast.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) Determine the market area.



Conversations with other shop owners in the area indicate a trading area traced on the map shown on the previous page. For convenience, the boundary of the trading area is chosen so that it coincides with census boundaries.

NOTE: Population statistics in Canada and the United States are prepared for each census and bulletins are available through federal government offices.

(2) POPULATION FORECAST

- Population for the trading area for the last two census years:

| <u>1984</u> | <u>1988</u> |
|-------------|-------------|
| 5,650 | 6,738 |

This is an average annual population growth of approximately 5%. This growth rate is assumed over the forecast period.

- Population forecast for trading area:

| <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|-------------|-------------|-------------|-------------|-------------|
| 7,075 | 7,429* | 7,800 | 8,190 | 8,600 |

$$*7,429 = 7,075 \times 1.05$$

■ ANSWER GUIDE

- (1) Estimate how much will be spent per person on the type of merchandise you intend to offer for sale.

NOTE: Consumer Expenditure data is available through federal government offices in both Canada and the United States. Private sources in Canada, such as *The Financial Post*, prepare consumer and industry data. In the United States, the *Editor and Publisher Market Guide* (New York) and *Survey of Buying Power, Sales Management, Inc.* (New York) are useful sources. The best method for the beginner, however, is to visit the reference librarian of any major library. This person will be able to determine government and private information sources that suit your requirements.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

- (1) (a) "TABLE 1 PER CAPITA EXPENDITURES BY FAMILY INCOME LEVEL" is a summary of a detailed government publication on average family expenditures (see pages 12-15).
- (b) The average family income for the market area is over \$15,000 (once again, this is available from census publications of the federal government). Knowing the income level enables you to select the final column, "\$15,000 AND OVER", in Table 1.
- (c) The merchandise assortment for the proposed store is known. By reading down the expenditures in the table, the appropriate dollar amounts in the final column can be included in a total when the expenditure category relates to a category of the proposed merchandise assortment.
- (d) In the example, the Per Capita Annual Expenditure for children's wear and equipment is approximately \$200.

TABLE 1

PER CAPITA EXPENDITURES
BY FAMILY INCOME LEVEL*

| EXPENDITURE | UNDER \$3,000 | \$3,000 - 3,999 | \$4,000 - 4,999 |
|--|------------------|--------------------|--------------------|
| FOOD | \$408 | \$359 | \$377 |
| Prepared at Home | 356 | 312 | 318 |
| Other | 52 | 47 | 59 |
| SHELTER | 340 | 281 | 294 |
| Housing (Mortgages & Interest) | 302 | 250 | 269 |
| Repairs (Paint, Wood, Tile) | 38 | 31 | 25 |
| HOUSEHOLD OPERATIONS | 77 | 71 | 77 |
| Cleaning & Paper Supplies & Food Wraps | 26 | 24 | 25 |
| Other (Laundry, Telephone, Pet Food) | 51 | 47 | 52 |
| FURNISHINGS & EQUIPMENT | 72 | 72 | 84 |
| Furniture (Wooden Chairs, Bedroom Suites) | 15 | 19 | 24 |
| Household Appliances (Vacuum Cleaner, Stove) | 24 | 22 | 23 |
| Other (Glass, Plastics, Textiles) | 33 | 31 | 37 |
| CLOTHING | 120 | 137 | 155 |
| Women over 14 | 62 | 60 | 62 |
| Coats & Suits | 15 | 13 | 14 |
| Dresses | 10 | 9 | 10 |
| Sportswear | 7 | 9 | 9 |
| Hosiery, Lingerie | 16 | 15 | 15 |
| Accessories | 4 | 4 | 5 |
| Footwear | 10 | 10 | 9 |
| Girls 4 to 13 | 2 | 7 | 8 |
| Coats & Suits | - | 1 | 1 |
| Dresses | - | 1 | 1 |
| Sportswear | 1 | 2 | 3 |
| Hosiery, Lingerie | - | 1 | 1 |
| Accessories | - | - | - |
| Footwear | 1 | 2 | 2 |
| Men over 14 | 41 | 49 | 61 |
| Coats & Jackets | 6 | 6 | 10 |
| Suits, Sport Coats, Trousers | 13 | 16 | 20 |
| Furnishings & Underwear | 11 | 12 | 13 |
| Accessories | 4 | 6 | 8 |
| Footwear | 7 | 9 | 10 |

| \$5,000 - 5,999 | \$6,000 - 6,999 | \$7,000 - 7,999 | \$8,000 - 8,999 | \$9,000 - 9,999 | \$10,000 - 10,999 | \$11,000 - 11,999 | \$12,000 - 14,999 | \$15,000 & OVER |
|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|--------------------|
| \$390 | \$382 | \$415 | \$402 | \$430 | \$463 | \$430 | \$498 | \$572 |
| 339 | 323 | 349 | 349 | 368 | 379 | 359 | 398 | 438 |
| 51 | 59 | 66 | 53 | 62 | 84 | 71 | 100 | 134 |
| 296 | 316 | 358 | 347 | 357 | 375 | 357 | 426 | 511 |
| 272 | 288 | 327 | 322 | 327 | 342 | 321 | 394 | 450 |
| 24 | 28 | 31 | 25 | 30 | 33 | 36 | 32 | 61 |
| 73 | 80 | 88 | 90 | 88 | 104 | 100 | 111 | 151 |
| 26 | 25 | 27 | 29 | 29 | 30 | 30 | 32 | 28 |
| 47 | 55 | 61 | 61 | 59 | 74 | 70 | 79 | 123 |
| 78 | 95 | 110 | 108 | 126 | 146 | 136 | 165 | 201 |
| 22 | 26 | 33 | 33 | 43 | 44 | 35 | 60 | 68 |
| 21 | 26 | 33 | 30 | 33 | 44 | 37 | 37 | 39 |
| 35 | 43 | 44 | 45 | 50 | 58 | 64 | 68 | 94 |
| 143 | 155 | 179 | 180 | 208 | 223 | 214 | 284 | 360 |
| 54 | 62 | 67 | 76 | 89 | 91 | 91 | 127 | 173 |
| 11 | 13 | 14 | 17 | 20 | 23 | 21 | 34 | 54 |
| 8 | 10 | 10 | 12 | 13 | 13 | 15 | 20 | 28 |
| 9 | 11 | 12 | 13 | 16 | 16 | 16 | 19 | 22 |
| 13 | 14 | 16 | 18 | 20 | 20 | 20 | 26 | 27 |
| 4 | 5 | 5 | 5 | 8 | 6 | 7 | 10 | 21 |
| 9 | 9 | 10 | 11 | 12 | 13 | 12 | 18 | 21 |
| 11 | 11 | 12 | 13 | 17 | 15 | 17 | 13 | 17 |
| 1 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 |
| 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| 4 | 3 | 4 | 4 | 5 | 4 | 6 | 4 | 6 |
| 2 | 2 | 2 | 2 | 3 | 3 | 3 | 2 | 3 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 3 |
| 55 | 55 | 69 | 60 | 69 | 81 | 69 | 105 | 129 |
| 8 | 7 | 8 | 7 | 9 | 11 | 8 | 13 | 16 |
| 20 | 19 | 27 | 22 | 26 | 29 | 28 | 42 | 52 |
| 13 | 14 | 18 | 15 | 17 | 20 | 16 | 25 | 30 |
| 5 | 5 | 6 | 6 | 6 | 8 | 6 | 10 | 12 |
| 9 | 10 | 10 | 10 | 11 | 13 | 11 | 15 | 19 |

| EXPENDITURE | UNDER \$3,000 | \$3,000 - 3,999 | \$4,000 - 4,999 |
|---|------------------|--------------------|--------------------|
| Boys 4 to 13 | \$4 | \$7 | \$9 |
| Coats & Jackets | 1 | 1 | 1 |
| Suits, Sport Coats, Trousers | 1 | 2 | 3 |
| Furnishings & Underwear | 1 | 2 | 3 |
| Accessories | - | - | - |
| Footwear | 1 | 2 | 2 |
| Children under 4 | 1 | 3 | 4 |
| Clothing, Material & Services | 10 | 11 | 11 |
| PERSONAL CARE | 34 | 36 | 37 |
| Services (e.g. Barber Shop, Beauty Salon) | 13 | 14 | 13 |
| Toilet Preparations & Supplies (Soap, Shampoo) | 21 | 22 | 24 |
| ALCOHOLIC BEVERAGES | 27 | 31 | 30 |
| CIGARETTES & TOBACCO | 31 | 37 | 33 |
| TRAVEL & TRANSPORTATION | 173 | 205 | 272 |
| Automobile & Truck Purchase | 61 | 75 | 106 |
| Operation of Automobile or Truck (Gas, Oil, Tires) | 82 | 97 | 133 |
| Other Vehicle (Snowmobile, Boat) | 3 | 5 | 5 |
| Operation of Other Vehicle (Gas, Repairs) | 1 | 2 | 1 |
| Other (Bus Fares, Air Travel) | 26 | 26 | 27 |
| RECREATION, READING & EDUCATION | 67 | 70 | 93 |
| Recreation (Radios, T.V., Records, Movies, Cameras) | 43 | 50 | 67 |
| Reading (Magazines, Books) | 10 | 8 | 9 |
| Education (Tuition Fees, Books & Supplies) | 14 | 12 | 17 |
| OTHER (FUNERAL, UNION DUES, WORK TOOLS) | 25 | 29 | 36 |
| MEDICAL & HEALTH CARE | 82 | 76 | 71 |
| TOTAL | \$1,456 | \$1,404 | \$1,559 |
| FAMILY SIZE | 1.74 | 2.70 | 2.86 |

| \$5,000 - 5,999 | \$6,000 - 6,999 | \$7,000 - 7,999 | \$8,000 - 8,999 | \$9,000 - 9,999 | \$10,000 - 10,999 | \$11,000 - 11,999 | \$12,000 - 14,999 | \$15,000 & OVER |
|--------------------|--------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|--------------------|
| \$10 | \$11 | \$13 | \$14 | \$13 | \$15 | \$18 | \$16 | \$17 |
| 1 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| 3 | 3 | 4 | 4 | 4 | 4 | 5 | 4 | 5 |
| 3 | 3 | 3 | 4 | 3 | 4 | 5 | 5 | 5 |
| 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 |
| 3 | 5 | 4 | 4 | 6 | 5 | 4 | 4 | 3 |
| 10 | 11 | 14 | 13 | 14 | 16 | 15 | 19 | 21 |
| 37 | 39 | 47 | 46 | 52 | 55 | 55 | 68 | 75 |
| 12 | 14 | 17 | 16 | 19 | 21 | 21 | 28 | 34 |
| 25 | 25 | 30 | 30 | 33 | 34 | 34 | 40 | 41 |
| 36 | 35 | 38 | 35 | 42 | 47 | 37 | 56 | 61 |
| 41 | 40 | 41 | 43 | 42 | 40 | 35 | 50 | 44 |
| 249 | 299 | 341 | 314 | 341 | 437 | 340 | 442 | 681 |
| 73 | 129 | 139 | 121 | 129 | 188 | 118 | 189 | 308 |
| 145 | 143 | 155 | 146 | 165 | 180 | 156 | 186 | 233 |
| 8 | 6 | 8 | 13 | 15 | 28 | 24 | 17 | 46 |
| 1 | 2 | 2 | 4 | 3 | 4 | 9 | 4 | 8 |
| 22 | 19 | 37 | 30 | 29 | 37 | 33 | 46 | 86 |
| 90 | 90 | 120 | 118 | 149 | 157 | 148 | 196 | 302 |
| 62 | 62 | 85 | 82 | 106 | 110 | 101 | 132 | 206 |
| 11 | 11 | 14 | 14 | 15 | 16 | 16 | 18 | 29 |
| 17 | 17 | 21 | 22 | 28 | 31 | 31 | 46 | 67 |
| 32 | 38 | 41 | 36 | 43 | 48 | 41 | 50 | 60 |
| 71 | 69 | 74 | 73 | 73 | 76 | 82 | 88 | 100 |
| \$1,536 | \$1,638 | \$1,852 | \$1,792 | \$1,951 | \$2,171 | \$1,975 | \$2,434 | \$3,118 |
| 3.19 | 3.40 | 3.35 | 3.87 | 3.81 | 3.82 | 4.18 | 3.79 | 3.96 |

*NOTE: The Table is constructed so that a total for a complete category is given first, and then the details that add up to that total amount follow. For example, refer to Per Capita Expenditures for clothing for a family with an income under \$3,000. The total Per Capita Expenditure for clothing is \$120. This is made up of expenditures by "Women over 14" for \$62, "Girls 4 to 13" for \$2, "Men over 14" for \$41, "Boys 4 to 13" for \$4, "Children under 4" for \$1, and "Clothing, Material & Services" for \$10. If a further breakdown is required, say for "Women over 14", then the detailed expenditures for coats and suits, dresses, sportswear, and so on, will apply.

- ANSWER GUIDE (1) Calculate Total Market Potential using the following formula:

$$\boxed{\text{POPULATION}} \times \boxed{\text{PER CAPITA EXPENDITURE}} = \text{TOTAL MARKET POTENTIAL}$$

- (2) Make an adjustment for expenditure outside the trading area by people living inside the trading area. Make another adjustment for expenditure in the trading area by visitors to the trading area.

NOTE: It is virtually impossible to make an accurate estimate of these adjustments. However, there is a logical approach. The objective is to determine a percentage factor that will either increase or reduce Total Market Potential in (1) above.

$$\text{ADJUSTMENT PERCENTAGE} = \frac{\text{total retail sales in the trading area (A) X 100}}{\text{total potential for retail expenditure in the trading area (B)}}$$

An estimate of (A) for the trading area can be obtained from the latest census of retail spending. A publication is available from the federal government that reports total retail sales by census division. The second total, (B), can be estimated from "TABLE 1 PER CAPITA EXPENDITURES BY FAMILY INCOME LEVEL" (pages 12-15) by determining the total retail expenditures for an individual and multiplying this amount by the population of the trading area.

If the percentage is greater than 100%, this would indicate that more expenditure potential is imported to the market area than is exported from it.

(3) Calculate Total Market Potential (adjusted) as follows:

$$\begin{array}{|c|} \hline \text{TOTAL MARKET} \\ \text{POTENTIAL} \\ \hline \end{array} \times \begin{array}{|c|} \hline \text{ADJUSTMENT} \\ \text{PERCENTAGE} \\ \hline \end{array} = \text{TOTAL MARKET POTENTIAL} \\ \text{(ADJUSTED)}$$

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) TOTAL MARKET POTENTIAL:

| | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|------------------------|--------------|--------------|--------------|--------------|--------------|
| Population | 7,075 | 7,429 | 7,800 | 8,190 | 8,600 |
| Per Capita Expenditure | <u>\$120</u> | <u>\$120</u> | <u>\$120</u> | <u>\$120</u> | <u>\$120</u> |
| Total Market Potential | \$849,000 | \$891,480 | \$936,000 | \$982,800 | \$1,032,000 |

(2) ADJUSTMENT PERCENTAGE:

Retail sales in trading area = \$26,498,940

Potential for retail expenditure
in trading area = \$15,900,000

$$\begin{aligned} \text{ADJUSTMENT PERCENTAGE} &= \frac{\$26,498,940}{\$15,900,000} \times 100 \\ &= \underline{166.66\%} \end{aligned}$$

(3) TOTAL MARKET POTENTIAL (ADJUSTED):

| | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|--------------------------------------|----------------|----------------|----------------|----------------|----------------|
| Total Market Potential | \$849,000 | \$891,480 | \$936,000 | \$982,800 | \$1,032,000 |
| Times: Adjustment Percentage | <u>166.66%</u> | <u>166.66%</u> | <u>166.66%</u> | <u>166.66%</u> | <u>166.66%</u> |
| Total Market Potential (adjusted) | \$1,415,000 | \$1,485,800 | \$1,560,000 | \$1,638,000 | \$1,720,000 |

SECTION A
MARKET FEASIBILITY
STEP 2: MARKET SHARE

■ QUESTION II

"How much of this product can I sell?"

Now that you know the Total Market Potential, you are in a position to estimate what your Market Share is likely to be.

■ ANSWER GUIDE

Use the following to help you arrive at an answer.

(1) Prepare an inventory of the total square footage of retail selling space devoted to the sale of merchandise similar to the type you intend to offer, located in the same market area.

(2) Make a preliminary estimate of the size of your proposed store.

(3) Calculate Market Share as follows:

$$\text{MARKET SHARE} = \frac{\text{size of proposed store (square feet)}}{\text{competitive space (square feet) plus size of proposed store}} \times 100$$

(4) Adjust this percentage to reflect other competitive advantages:

- location
- attractiveness of retail space
- price
- quality of merchandise assortment
- quality of service and selling techniques.

(5) Calculate Sales:

| | | | |
|-------------------------|---|--------------------------------------|---------|
| MARKET SHARE PERCENTAGE | X | TOTAL MARKET POTENTIAL (ADJUSTED) | = SALES |
|-------------------------|---|--------------------------------------|---------|

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) Competitive floor space = 12,000 square feet

(2) Size of proposed store = 3,000 square feet

(3) MARKET SHARE PERCENTAGE:

$$\begin{aligned} \text{MARKET SHARE PERCENTAGE} &= \frac{3,000 \text{ square feet}}{12,000 \text{ square feet} + 3,000 \text{ square feet}} \times 100 \\ &= \underline{20\%} \end{aligned}$$

(4) ADJUSTED MARKET SHARE PERCENTAGE

No adjustment is made, assuming that the proposed retail space is equivalent to competitive retail space in all respects.

(5) SALES:

| | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|--------------------------------|-------------|-------------|-------------|-------------|-------------|
| Total Market Potential | \$1,415,000 | \$1,485,800 | \$1,560,000 | \$1,638,000 | \$1,720,000 |
| Times: Market Share Percentage | <u>20%</u> | <u>20%</u> | <u>20%</u> | <u>20%</u> | <u>20%</u> |
| Sales | \$283,000 | \$297,160 | \$312,000 | \$327,600 | \$344,000 |

IMPORTANT NOTE: The above figures have been entered on the worksheet example (page 75). Keep the worksheet before you from now on to see how the analysis is tied together, one step at a time. If you are doing your own analysis, use the blank worksheet on page 77.

SECTION A
MARKET FEASIBILITY
SUMMARY

■ SUMMARY

Now that you have completed Section A of the study, you should summarize your answers to the two questions you have answered in the form of an overall presentation. To help you prepare your own summary, the example of the Children's Wear Store will be presented on the following page. Blank Format Sheets are provided in the Appendix for your own presentation.

INTRODUCTION

Kids 'n Teen Shop Incorporated is planning to establish a children's wear retail store at 1504 Main Street, Anytown. The purpose of this analysis is to examine whether this new venture is workable and profitable.

Section A

MARKET FEASIBILITY

1. TOTAL MARKET POTENTIAL (Page 18)

We estimate that there are 7,075 people in the market area who spend an average of \$120 each per year on children's wear and equipment. Total Market Potential for the next five years is estimated as follows:

| <u>TOTAL MARKET POTENTIAL</u> | | | | |
|-------------------------------|--------------------|--------------------|--------------------|--------------------|
| <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
| <u>\$1,415,000</u> | <u>\$1,485,800</u> | <u>\$1,560,000</u> | <u>\$1,638,000</u> | <u>\$1,720,000</u> |

2. MARKET SHARE (Page 21)

We have studied the businesses in the area and have found that there are many small competitors who are selling merchandise similar to the type which we are planning to sell. They offer similar service and use similar sales techniques. Because of this, we are aiming at a Market Share of 20%. Sales Estimate is below:

SALES ESTIMATE

| <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|------------------|------------------|------------------|------------------|------------------|
| <u>\$283,000</u> | <u>\$297,160</u> | <u>\$312,000</u> | <u>\$327,600</u> | <u>\$344,000</u> |

SECTION B
OPERATING FEASIBILITY

SECTION B
OPERATING FEASIBILITY
STEP 3: BUILDING, FIXTURING,
AND EQUIPMENT REQUIREMENTS

■ QUESTION I

"What type of building, fixturing, and other equipment will I need?"

Now that you know what your sales potential is, it is time to decide what type of building, fixturing, and other equipment you will need to go ahead with your plans.

■ ANSWER GUIDE

Use the following to help you arrive at an answer.

(1) If you plan to construct your own building, determine the following facts by interviewing realtors and contractors:

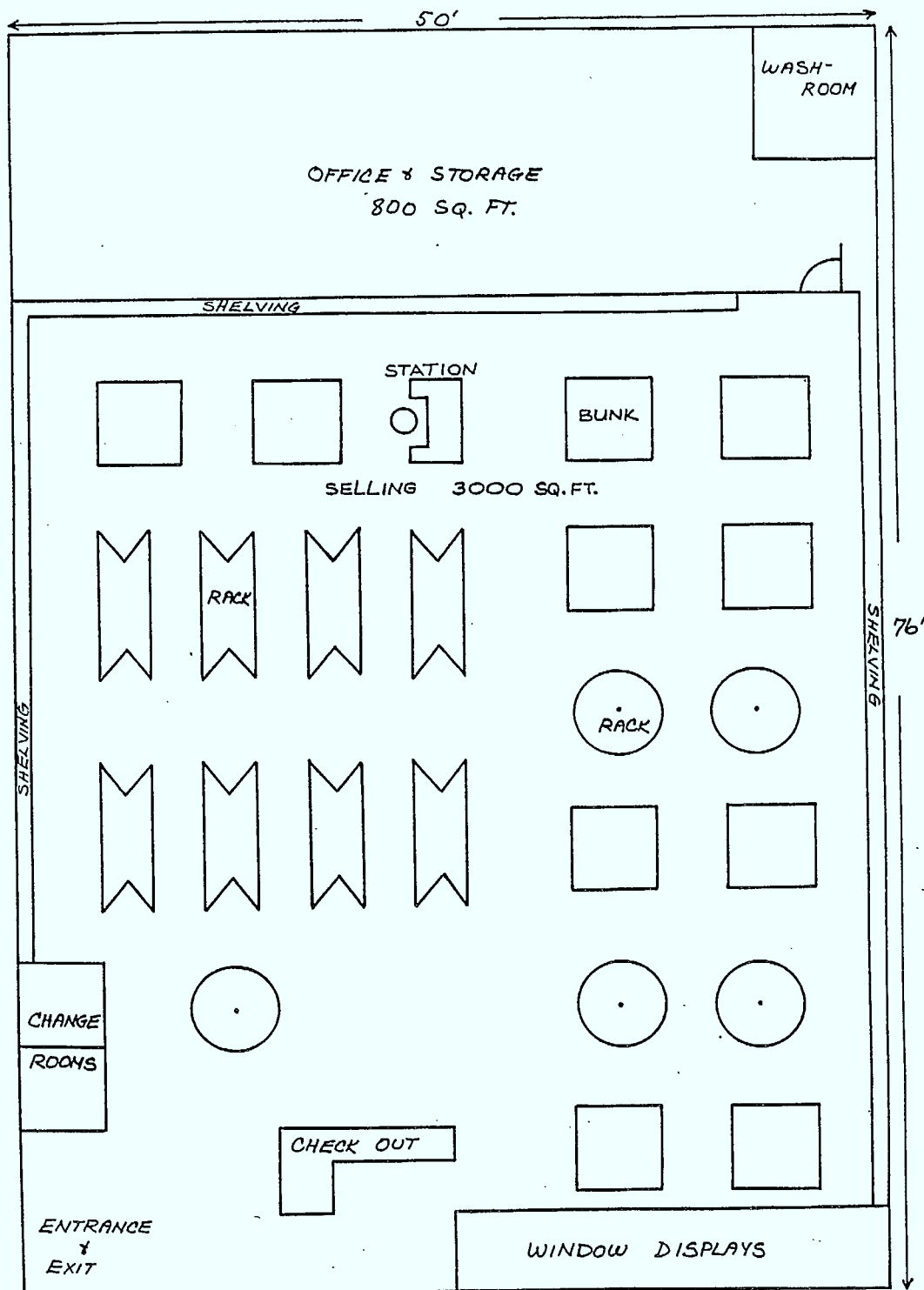
- cost of building construction
- cost of property improvement (e.g. paving, signing, landscaping)
- cost of land and acquisition.

If, instead, you plan to lease a building, determine the cost of leasehold improvements that you will have to finance (e.g. partitioning, painting, new flooring).

(2) Estimate fixturing requirements by preparing a sketch of the floor plan to scale including fixturing, shelves, racks, and so on (e.g. page 28).

(3) Determine other equipment requirements (e.g. delivery truck, office equipment).

FLOOR PLAN AND FIXTURING



EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

- (1) The plan is to lease an existing 3,800 square foot building. 3,000 square feet will be devoted to selling, with 800 square feet for office and storage. It is estimated that \$5,000 will have to be spent on partitioning and redecorating as a leasehold improvement.
- (2) Approximately \$40,000 will be required for fixturing and shelving.
- (3) Approximately \$15,000 will be required for a delivery truck, office furniture, and cash register.

SECTION B
OPERATING FEASIBILITY
STEP 4: COST OF MERCHANDISE

■ QUESTION II

"How much will I have to pay for the merchandise?"

A good way to find an answer to this question is to figure the Cost of Merchandise as a percentage of the sales that you expect (i.e. your Market Share). Use the answer guide to find an answer.

■ ANSWER GUIDE

(1) Look up the Cost of Goods Sold Percentage in the table on page 32 for the type of retail business you are planning. This is just a guide because actual percentages will vary widely depending on suppliers, transportation costs, import duties, and foreign exchange costs. If you have suppliers in mind, discuss these percentages with them.

(2) Determine the dollar value of the Cost of Goods

Sold by multiplying the sales you expect by the above percentage.

(3) Enter these results on the worksheet.

TABLE 2

COST OF GOODS SOLD PERCENTAGES
BY TYPE OF RETAIL BUSINESS
(expressed as a % of sales)

| TYPE | COST OF GOODS SOLD PERCENTAGE | TYPE | COST OF GOODS SOLD PERCENTAGE |
|---|-------------------------------------|---------------------------------|-------------------------------------|
| Appliance, Radio, T.V. Sales & Service | 70% | Jewelry Store | 52% |
| Automobile Dealer | 85 | Liquor Store | 77 |
| Auto Parts Distributor | 64 | Lumber Dealer | 69 |
| Bakery | 48 | Meat Market | 79 |
| Bookstore | 63 | Men's Wear Store | 64 |
| Children's Wear Store | 67 | Music Store | 60 |
| Delicatessen | 62 | Office Supply & Equipment | 64 |
| Department Store | 65 | Paint & Wallpaper | 66 |
| Drug Store | 62 | Photographic Studio & Supply | 42 |
| Dry Goods Store | 70 | Speciality Shops | 60 |
| Family Shoe Store | 63 | Sporting Goods | 71 |
| Florist | 46 | Supermarket | 80 |
| Furniture Store | 62 | Toy Store | 65 |
| Gift & Souvenir Store | 60 | Variety Store | 64 |
| Grocery Store | 83 | | |
| Hardware Store | 67 | | |

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) Table 2 (page 32) indicates that the Cost of Goods Sold Percentage (expressed as a percentage of sales) for a Children's Wear Store is 67%. A telephone call to a major supplier suggests that this is reasonable.

(2) COST OF GOODS SOLD:

| | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Sales (Step 2) | \$283,000 | \$297,160 | \$312,000 | \$327,600 | \$344,000 |
| Cost of Sales | <u>67.0%</u> | <u>67.0%</u> | <u>67.0%</u> | <u>67.0%</u> | <u>67.0%</u> |
| Cost of Goods Sold | \$189,610 | \$199,097 | \$209,040 | \$219,492 | \$230,480 |

(3) WORKSHEET ENTRY

Turn to the worksheet example for the Children's Wear Store example on page 75. Notice that "line 2 - Cost of Sales" has been completed as above. If you are at the point of preparing your own analysis, you should enter the figures on the blank worksheet provided for that purpose on page 77.

SECTION B
OPERATING FEASIBILITY
STEP 5: CALCULATION OF CASH
OPERATING EXPENSES

■ QUESTION III "What cash expenses will I have to meet?"

Cash expenses include:

- (a) salary, wage, and benefit costs
- (b) occupancy costs
- (c) general operating expenses.

- ANSWER GUIDE
- (1) List every cash expense that is likely to occur.
 - (2) Classify these expenses into three categories and summarize them on an annual basis:
 - (a) Salary and Wages
 - (b) Occupancy Costs
 - (c) General Operating Expenses

(3) Omit Interest Expense, which will be considered in Step 7; follow the example provided; and make an entry on the worksheet provided.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) EXPENSES:

| | | <u>CATEGORY</u> |
|-----------------------|---------------|---------------------|
| 3 Sales clerks | \$1,750/month | } Salary & Wages |
| Salary (owner) | 1,170/month | |
| Rent | 825/month | } Occupancy |
| Business tax | 185/month | |
| Repairs & maintenance | 160/month | } General Operating |
| Advertising | 355/month | |
| Automobile | 300/month | |
| Insurance | 235/month | |
| Supplies | 150/month | |
| Utilities | 440/month | |
| Other | 250/month | |

(2) EXPENSE CLASSIFICATION*:

(a) SALARY AND WAGES

| | | |
|-----------------|---------------|----------|
| Wages (selling) | \$21,000 | |
| Salary (owner) | <u>14,000</u> | |
| | | \$35,000 |

(b) OCCUPANCY

| | | |
|-----------------------|--------------|----------|
| Rent | \$9,900 | |
| Business tax | 2,200 | |
| Repairs & maintenance | <u>1,900</u> | |
| | | \$14,000 |

(c) GENERAL OPERATING

| | | |
|---------------------|--------------|-----------------|
| Advertising | \$4,300 | |
| Automobile | 3,600 | |
| Insurance | 2,800 | |
| Supplies | 1,800 | |
| Utilities | 5,300 | |
| Other | <u>3,000</u> | |
| | | \$20,800 |
| Total Cash Expenses | | <u>\$69,800</u> |

*Expenses have been rounded to the nearest \$100.

(3) WORKSHEET ENTRY

"Line 4 - Cash Operating Expenses" has been completed on the example worksheet on page 75. As determined above, Cash Operating Expenses in the first year are \$69,800. Notice that in the worksheet example, the amount is inflated in subsequent years so that it remains a constant percentage of sales. This is a

reasonable assumption. If you are now preparing your own analysis, complete "*Line 4 - Cash Operating Expenses*" on the blank worksheet on page 77.

SECTION B
OPERATING FEASIBILITY
STEP 6: BUDGETING FOR OTHER EXPENSES

■ QUESTION IV

"What other expenses do I have to allow for?"
"Will I have to borrow money?"

In addition to expenses for wages, salaries, rent, utilities, and so on, allowance must be made for a number of other expenses that arise in the course of running a business. These additional expenses include:

- (1) interest
- (2) depreciation.

Interest Expense represents the cost of borrowing and although it is a cash expense similar to the others already discussed, it has been left until now for special treatment. Depreciation Expense represents the annual cost of using fixed assets such as fixturing, office equipment, the building

or leasehold improvements, and so on.

In order to make allowance for these other expenses, follow the answer guide.

■ ANSWER GUIDE

INTEREST EXPENSE CALCULATION

(1) Calculate the cost of land, building, leasehold improvements, fixturing, and other equipment.

(2) Calculate the value of the initial investment in inventory. To arrive at an estimate of this amount, refer to the table of Stock-Sales Ratios (page 40) for the business category that most closely describes your venture. Then use the formula below:

$$\boxed{\text{STOCK-SALES RATIO}} \times \boxed{\frac{\text{ANNUAL SALES}}{12}} \times \boxed{\text{COST OF SALES PERCENTAGE}} = \text{INITIAL INVENTORY INVESTMENT}$$

TABLE 3

| STOCK-SALES RATIOS | | | |
|-------------------------------|-----|-------------------------------|-----|
| Women's dresses | 2.8 | China & glassware | 7.2 |
| Women's coats & suits | 2.9 | Floor coverings | 4.2 |
| Women's sportswear | 2.3 | Draperies, curtains | |
| Children's wear | 3.2 | & furniture coverings | 4.4 |
| Lingerie & sleepwear | 3.6 | Lamps, pictures, mirrors | |
| Intimate apparel | 3.8 | & home furnishings | 6.4 |
| Millinery | 1.3 | Furniture | 3.4 |
| Women's hosiery | 3.4 | Major appliances | 1.5 |
| Women's accessories | 3.6 | T.V. & radios | 3.5 |
| Women's & children's footwear | 4.1 | Housewares & small electrical | |
| Men's clothing | 4.6 | appliances | 4.2 |
| Men's furnishings | 3.9 | Hardware, paints, | |
| Boy's clothing & furnishings | 4.3 | wallpaper, etc. | 3.9 |
| Men's & boy's footwear | 5.6 | Plumbing, heating & building | |
| Food & kindred products | 0.6 | materials | 4.0 |
| Toiletries, cosmetics & drugs | 3.4 | Jewelry | 6.0 |
| Photographic equipment | | Toys & games | 6.1 |
| & supplies | 4.1 | Sporting goods & luggage | 4.2 |
| Piece goods | 4.7 | Stationery & books | 4.1 |
| Linens & domestics | 3.4 | Gasoline, oil, | |
| Smallwares & notions | 5.0 | auto accessories, etc. | 2.7 |

(3) Estimate the Value of Sales (accounts receivable) for which credit will be granted.

(4) Add (1), (2), and (3) to arrive at Total Capital Requirements.

(5) Estimate the amount of personal money you plan to invest in the venture.

(6) Estimate the residual amount of borrowing needed and state sources from which it will be raised.

(7) Work out the Interest Cost on the amount of borrowing. Interest Cost is generally the amount you are required to pay the bank or lending agency. To arrive at the Annual Repayment, refer to the table of Level Factors below, look up the relevant factor, and divide the total sum of the loan by the factor.

LEVEL FACTOR TABLES

INTEREST RATE

| | 6% | 8% | 10% | 12% | 14% | 16% | 18% |
|----|--------|--------|-------|-------|-------|-------|-------|
| 5 | 4.212 | 3.993 | 3.791 | 3.605 | 3.433 | 3.274 | 3.127 |
| 6 | 4.917 | 4.623 | 4.355 | 4.111 | 3.889 | 3.685 | 3.498 |
| 7 | 5.582 | 5.206 | 4.868 | 4.564 | 4.288 | 4.039 | 3.812 |
| 8 | 6.210 | 5.747 | 5.335 | 4.968 | 4.639 | 4.344 | 4.078 |
| 9 | 6.802 | 6.247 | 5.759 | 5.328 | 4.946 | 4.607 | 4.303 |
| 10 | 7.360 | 6.710 | 6.145 | 5.650 | 5.216 | 4.833 | 4.494 |
| 15 | 9.712 | 8.559 | 7.606 | 6.811 | 6.142 | 5.575 | 5.092 |
| 20 | 11.470 | 9.818 | 8.514 | 7.469 | 6.623 | 5.929 | 5.353 |
| 25 | 12.783 | 10.675 | 9.077 | 7.843 | 6.873 | 6.097 | 5.407 |
| 30 | 13.765 | 11.258 | 9.427 | 8.035 | 7.003 | 6.177 | 5.517 |

REPAYMENT PERIOD IN YEARS

e.g. Assume a 5-year \$60,000 loan at 12% per annum.

$$\text{Level Factor} = 3.605$$

$$\text{Annual Payment} = \frac{\$60,000}{3.605} = \$16,644$$

(8) Make an entry on the worksheet on page 77.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) COST OF FIXED ASSETS:

| | |
|--|-----------------|
| Leasehold improvements (e.g. partitioning and redecorating) | \$5,000 |
| Fixturing and shelving | 40,000 |
| Delivery truck, office furniture, and cash register | <u>15,000</u> |
| | <u>\$60,000</u> |

(2) INITIAL INVENTORY INVESTMENT

The Stock-Sales Ratio for children's wear is 3.2, according to Table 3 (page 40). Annual sales are expected to be \$283,000 in the first year (Step 3). The Cost of Goods Sold Percentage is 67% (Step 5). The value of the Initial Inventory Investment is, therefore:

$$\boxed{\text{STOCK-SALES RATIO}} \times \boxed{\frac{\text{ANNUAL SALES}}{12}} \times \boxed{\text{COST OF SALES PERCENTAGE}} = \text{INITIAL INVENTORY INVESTMENT}$$

$$3.2 \times \frac{\$283,000}{12} \times .67 = \$50,600^*$$

*rounded to nearest \$100

A major supplier should be interviewed to confirm this estimate.

(3) ALLOWANCE FOR CREDIT SALES (ACCOUNTS RECEIVABLE)

It is assumed that most sales will be made with cash or credit card (considered equivalent to cash) and that only approximately 10% of sales will be made on a credit basis. Selling terms are 30 days net (i.e. all customers pay in 30 days).

If terms are 30 days net, approximately one month's credit sales must be financed.

- Value of 1 month's sales = $\frac{\$283,000}{12} = \$23,600$
- Value of 1 month's credit sales @ 10% of total sales = 10% of \$23,600 = \$2,400

(4) SUMMARY OF TOTAL CAPITAL REQUIREMENTS:

| | |
|--------------------------------------|------------------|
| 1. Cost of Fixed Assets | \$60,000 |
| 2. Initial Inventory Investment | 50,600 |
| 3. Allowance for Accounts Receivable | <u>2,400</u> |
| | <u>\$113,000</u> |

(5) PERSONAL INVESTMENT IN VENTURE

The plan is to invest \$33,000 in the venture.

(6) ESTIMATED BORROWING:

| | |
|-------------------------------|-----------------|
| Total Capital Requirements | \$113,000 |
| Less: Personal Investment | <u>33,000</u> |
| Equals: Amount to be Borrowed | <u>\$80,000</u> |

Plan is to borrow: (1) \$60,000 for 5 years @ 12%
(2) \$20,000 on a demand loan arrangement with the bank @ 12%.

(7) INTEREST COST ON BORROWING

The Annual Repayment on the \$60,000 loan for 5 years at 12% is:

$$\frac{\text{Amount of Loan}}{\text{Level Factor}} = \frac{\$60,000}{3.605} = \$16,644^*$$

*see table in answer guide (page 41)

| REPAYMENT SCHEDULE | | | | |
|--------------------|----------|------------------|-------------------|----------|
| | Col. 1 | Col. 2 | Col. 3 | Col. 4 |
| YEAR | PAYMENT | INTEREST PORTION | REPAYMENT PORTION | BALANCE |
| | | | | \$60,000 |
| 1 | \$16,644 | \$7,200 | \$9,444 | \$50,556 |
| 2 | 16,644 | 6,067 | 10,577 | 39,979 |
| 3 | 16,644 | 4,797 | 11,847 | 28,132 |
| 4 | 16,644 | 3,376 | 13,268 | 14,864 |
| 5 | 16,644 | 1,780 | 14,864 | ∅ |

This column to "line 5 - Interest--Term Loan" on worksheet example.

This column to "line 14 - Repayment of Principal" on worksheet example.

- Column 1 is the Annual Payment.
- Column 2 is the Interest Payment calculated as follows:

| | | | | |
|---------------------|---|---------------|---|------------------|
| OUTSTANDING BALANCE | X | INTEREST RATE | = | INTEREST PAYMENT |
|---------------------|---|---------------|---|------------------|

Example 1: \$60,000 X 12% = \$7,200

Example 2: \$50,556 X 12% = \$6,067

- Column 3 is the Loan Repayment Portion. It reduces the amount of the loan:

| | |
|---------------------------|-----------------|
| i.e. Outstanding Balance | \$60,000 |
| Less: Principal Repayment | <u>9,444</u> |
| New Balance | <u>\$50,556</u> |

(8) WORKSHEET

Several lines can be filled in on the worksheet now.

"Line 5 - Interest--Term Loan" and "line 14 - Repayment of Principal" are entered directly from the Repayment Schedule as indicated earlier. "Line 15 - (Demand Loan)/Bank Balance" and "line 6 - Interest--Demand Loan" can also be completed as follows:

(a) "LINE 15 - (DEMAND LOAN)/BANK BALANCE":

| | |
|---|-----------------|
| Total Capital Requirements | \$113,000 |
| Less: Term Financing | 60,000 |
| Less: Personal Investment | <u>33,000</u> |
| Equals: "line 15 - (Demand Loan)/Bank Balance" | <u>\$20,000</u> |

Enter this amount for the first year only.

(b) "LINE 6 - INTEREST--DEMAND LOAN"

Use the following formula:

$$\begin{array}{rcccl} \boxed{\text{DEMAND LOAN}} & \times & \boxed{\text{ANNUAL}} & & \\ & & \text{INTEREST RATE} & = & \text{DEMAND LOAN INTEREST} \\ \\ \$20,000 & \times & 12\% & = & \$2,400 \end{array}$$

Enter this amount for the first year only. In future years calculate "Interest--Demand Loan" (line 6) at 12% of "(Demand Loan)/Bank Balance" (line 15).

An allowance must be made for the cost of using fixed assets such as fixturing, office equipment, vehicles, and building or leasehold improvements. An allowance for this expense takes the form of an annual rate (e.g. 20%, 25%) which is applied to the undepreciated value of the item.

Use the following procedure to calculate Depreciation Expense.

- (1) Set out the cost of all fixed assets (i.e. building, leasehold improvements, fixtures, etc.).
- (2) Contact the Taxation Office to determine the rate (percentage) that is allowed for depreciation on each item.
- (3) Apply this rate to the cost of the items and calculate Depreciation Expense.
- (4) Deduct the Depreciation Expense from the cost of the items to arrive at the new value.

(5) Set out the information in a schedule as below:

| DEPRECIATION SCHEDULE | | |
|-----------------------|-------------------------|------------------------------|
| YEAR | DEPRECIATION EXPENSE | BALANCE TO BE DEPRECIATED |
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

(6) Make an entry to the worksheet on page 77.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) COST OF FIXED ASSETS: (2) DEPRECIATION RATE:

| <u>ITEM</u> | <u>COST</u> | | <u>RATE</u> | |
|-----------------|-----------------|---|-------------|-----------------|
| Leasehold | | | | |
| Improvements | \$5,000 | X | *20% = | \$1,000 |
| Fixturing | 40,000 | X | *20% = | 8,000 |
| Truck, Office | | | | |
| Furniture, etc. | <u>15,000</u> | X | *25% = | <u>3,800</u> |
| | <u>\$60,000</u> | | | <u>\$12,800</u> |

$$\text{Average Depreciation Rate} = \frac{\$12,800}{\$60,000} \times 100 = 21\%$$

*These rates are given as examples only.

(3) (4) (5) DEPRECIATION SCHEDULE:

| Col. 1 | Col. 2 | Col. 3 |
|--------|----------------------|---------------------------|
| YEAR | DEPRECIATION EXPENSE | BALANCE TO BE DEPRECIATED |
| | | \$60,000 |
| 1 | \$12,600 | \$47,400 |
| 2 | 9,954 | 37,446 |
| 3 | 7,864 | 29,582 |
| 4 | 6,212 | 23,370 |
| 5 | 4,908 | 18,462 |

This column to "line 7" and "line 12 - Depreciation" on worksheet example.

- Column 1 is the year in which Depreciation Expense is calculated.

- Column 2 is the Depreciation Expense--calculated by applying rate to balance:

$$\text{e.g. } \frac{21}{100} \times \$60,000 = \$12,600$$

- Column 3 is the New Balance:

$$\text{i.e. } \$60,000 \text{ less } \$12,600 = \$47,400$$

(6) WORKSHEET ENTRY

As indicated above, two more lines are added to the worksheet, "line 7 - Depreciation" and "line 12 - Depreciation". If you are working on your own feasibility analysis, enter the figures on the blank worksheet.

SECTION B
OPERATING FEASIBILITY
SUMMARY

■ SUMMARY

Summarize the answers to all questions in this Section using the following headings:

B. OPERATING FEASIBILITY

- (a) Building, Fixturing and Equipment Schedule
- (b) Cost of Goods Sold Schedule
- (c) Cash Operating Expense Schedule
- (d) Capital Cost of Fixed Assets Schedule
- (e) Initial Working Capital Requirements Schedule
- (f) Principal and Interest Schedule
- (g) Depreciation Schedule

■ ANSWER GUIDE

Follow the illustration in the example. If you are completing your own analysis, use the blank Presentation Format Sheets provided in the Appendix.

Section B

OPERATING FEASIBILITY

Set out below are the following schedules:

- (a) Building, Fixturing and Equipment Schedule
- (b) Cost of Goods Sold Schedule
- (c) Cash Operating Expense Schedule
- (d) Capital Costs of Fixed Assets Schedule
- (e) Initial Working Capital Requirements Schedule
- (f) Principal and Interest Schedule
- (g) Depreciation Schedule

(a) BUILDING, FIXTURING AND EQUIPMENT SCHEDULE: (Page 29)

We have determined that the following is required:

- Leased premises (3,800 square feet)
- Fixturing and shelving
- 1 delivery truck
- 2 desks
- 2 swivel chairs
- 1 typewriter
- 1 filing cabinet
- 1 cash register

(b) COST OF GOODS SOLD SCHEDULE: (Page 33)

| | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|--------------------|--------------|--------------|--------------|--------------|--------------|
| Estimated Sales | \$283,000 | \$297,160 | \$312,000 | \$327,600 | \$344,000 |
| Cost of Sales | <u>67.0%</u> | <u>67.0%</u> | <u>67.0%</u> | <u>67.0%</u> | <u>67.0%</u> |
| Cost of Goods Sold | \$189,610 | \$199,097 | \$209,040 | \$219,492 | \$230,480 |

(c) CASH OPERATING EXPENSE SCHEDULE: (Page 36)

| <u>EXPENSE</u> | | <u>AMOUNT</u> |
|----------------------------------|-----------|------------------|
| <u>Salary and Wages</u> | | |
| Wages (selling) | \$ 21,000 | |
| Salary (owner) | 14,000 | |
| Total Salary and Wage Expenses | | \$ 35,000 |
| <u>Occupancy</u> | | |
| Rent | \$ 9,900 | |
| Business tax | 2,200 | |
| Repairs & maintenance | 1,900 | |
| Total Occupancy Expenses | | \$ 14,000 |
| <u>General Operating</u> | | |
| Advertising | \$ 4,300 | |
| Automobile | 3,600 | |
| Insurance | 2,800 | |
| Supplies | 1,800 | |
| Utilities | 5,300 | |
| Other | 3,000 | |
| Total General Operating Expenses | | \$ 20,800 |
| Total Cash Operating Expenses | | \$ <u>69,800</u> |

(d) CAPITAL COSTS OF FIXED ASSETS SCHEDULE: (Page 42)

| <u>FIXED ASSETS</u> | <u>AMOUNT</u> |
|--|-------------------------|
| Leasehold improvements | # 5,000 |
| Fixturing and shelving | 40,000 |
| Delivery truck, office furniture, and cash register | <u>15,000</u> |
| | <u><u>\$ 60,000</u></u> |

(e) INITIAL WORKING CAPITAL REQUIREMENTS SCHEDULE: (Pages 42, 43)

| <u>CATEGORY</u> | <u>AMOUNT</u> |
|----------------------------|-------------------------|
| <i>Inventory</i> | <i>\$ 50,600</i> |
| <i>Accounts receivable</i> | <i>2,400</i> |
| | <i><u>\$ 53,000</u></i> |

(f) PRINCIPAL AND INTEREST SCHEDULE: (Page 44)

| YEAR | PAYMENT | INTEREST PORTION | PRINCIPAL REPAYMENT | BALANCE OF PRINCIPAL |
|------|-----------|------------------|---------------------|----------------------|
| | | | | \$ 60,000 |
| 1 | \$ 16,644 | \$ 7,200 | \$ 9,444 | \$ 50,556 |
| 2 | 16,644 | 6,067 | 10,577 | 39,979 |
| 3 | 16,644 | 4,797 | 11,847 | 28,132 |
| 4 | 16,644 | 3,376 | 13,268 | 14,864 |
| 5 | 16,644 | 1,780 | 14,864 | 0 |

(g) DEPRECIATION SCHEDULE*: (Page 49)

| YEAR | DEPRECIATION EXPENSE | BALANCE TO BE DEPRECIATED |
|------|----------------------|---------------------------|
| | | \$ 60,000 |
| 1 | \$ 12,600 | \$ 47,400 |
| 2 | 9,954 | 37,446 |
| 3 | 7,864 | 29,582 |
| 4 | 6,212 | 23,370 |
| 5 | 4,908 | 18,462 |

*21% depreciation rate assumed

Based on the above schedules, we have prepared a pro forma profit and loss together with a cash flow schedule for the years 1976 to 1980 inclusive.

SECTION C
FINANCIAL FEASIBILITY

SECTION C
FINANCIAL FEASIBILITY
STEP 7: SALES LESS EXPENSES

■ QUESTION I

"After paying all expenses, how much do I make?"

In seeking an answer to this question, you are really trying to determine whether or not the venture is profitable. The amount that indicates profitability is "Net Profit after Taxes". If this amount is positive, the venture is profitable.

Follow the answer guide to calculate this figure.

■ ANSWER GUIDE

(1) Review your worksheet to ensure that all the figures are entered on the correct lines.

(2) Calculate the following for the first year on the worksheet:

(a) Gross Profit (Sales less Cost of Sales)

- (b) Net Profit before Taxes (Gross Profit less Total Expenses)
- (c) Income Tax (Net Profit before Taxes times Tax Rate)
- (d) Net Profit after Taxes (Net Profit before Taxes less Income Tax): Call the Taxation Office and find out what tax rate applies at this level of profits.
- (e) Cash Flow from Operations (Net Profit after Taxes plus Depreciation)
- (f) Actual Cash Flow (Cash Flow from Operations less Repayment of Principal and Demand Loan).

(3) If the Actual Cash Flow is negative (i.e. deficit), this figure is the amount of the demand loan you will need at the start of the next year (follow the arrow on the worksheet). Calculate Interest Expense on the demand loan for the next year and enter the amount on "line 6 - Interest--Demand Loan" for that year.

(4) Repeat (2) and (3) above for the subsequent years.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

The worksheet is now complete. Net Profit after Taxes is positive in all years. Therefore, the venture is profitable.

SECTION C
FINANCIAL FEASIBILITY
SUMMARY

■ SUMMARY

Summarize the answer to the question using a Pro Forma Profit and Loss and Cash Flow Schedule.

■ ANSWER GUIDE

Follow the illustration in the example. If you are completing your own analysis, use the blank Presentation Format Sheet provided in the Appendix. Notice that the Pro Forma Profit and Loss and Cash Flow Schedule example is identical to the worksheet example.

Section C

FINANCIAL FEASIBILITY

| PRO FORMA PROFIT AND LOSS, AND CASH FLOW SCHEDULE 19 <u>89</u> TO 19 <u>93</u> | | | | | |
|--|--------------|--------------|--------------|--------------|--------------|
| | 19 <u>89</u> | 19 <u>90</u> | 19 <u>91</u> | 19 <u>92</u> | 19 <u>93</u> |
| 1. Sales | \$283,000 | \$297,160 | \$312,000 | \$327,600 | \$344,000 |
| 2. Cost of Sales | 189,610 | 199,097 | 209,040 | 219,492 | 230,480 |
| 3. Gross Profit | 93,390 | 98,063 | 102,960 | 108,108 | 113,520 |
| 4. Cash Operating Expenses | 69,800 | 74,290 | 78,000 | 81,900 | 86,000 |
| 5. Interest--Term Loan | 7,200 | 6,067 | 4,797 | 3,376 | 1,780 |
| 6. Interest--Demand Loan | 2,400 | 1,896 | 1,444 | 945 | 381 |
| 7. Depreciation | 12,600 | 9,954 | 7,864 | 6,212 | 4,908 |
| 8. Total Expenses | 92,000 | 92,207 | 92,105 | 92,433 | 93,069 |
| 9. Net Profit before Taxes | 1,390 | 5,856 | 10,855 | 15,675 | 20,451 |
| 10. Income Tax (@25%) | 348 | 1,464 | 2,714 | 3,919 | 5,113 |
| 11. Net Profit after Taxes | 1,042 | 4,392 | 8,141 | 11,756 | 15,338 |
| 12. Depreciation | 12,600 | 9,954 | 7,864 | 6,212 | 4,908 |
| 13. Cash Flow from Operations | 13,642 | 14,346 | 16,005 | 17,968 | 20,246 |
| 14. Repayment of Principal | (9,444) | (10,577) | (11,847) | (13,268) | (14,864) |
| 15. (Demand Loan)/Bank Balance | (20,000) | (15,802) | (12,033) | (7,875) | (3,175) |
| 16. Actual Cash Flow | \$(15,802) | \$(12,033) | \$(7,875) | \$(3,175) | \$ 2,207 |

SAMPLE PRESENTATION CHILDREN'S WEAR AND EQUIPMENT STORE

SECTION D
VENTURE FEASIBILITY

SECTION D
VENTURE FEASIBILITY
STEP 8: RETURN ON INVESTMENT

■ QUESTION I "Is it worthwhile?"

Now that you have determined sales, costs, and profits, you are in a position to take a hard look at the venture.

Among the more important things you should look for are:

- (a) the minimum amount of sales you will have to make in order to cover your expenses (Break-Even Sales and Market Share). This will give you an indication of how much risk is involved in the venture.
- (b) the rate of return you will receive on your investment (Return on Investment).

Use the answer guide to determine these figures.

■ ANSWER GUIDE

(1) Calculate Gross Margin Percentage (subtract Cost of Goods Sold Percentage from 100).

(2) Total your Operating Expenses. (Cash Expenses, Interest and Depreciation)

(3) Divide Total Operating Expenses by Gross Margin Percentage to arrive at Break-Even Sales.

$$\text{BREAK-EVEN SALES} = \frac{\text{total operating expenses}}{\text{gross margin percentage}}$$

(4) Express the figure for Net Profit after Taxes as a percentage of your investment (the money you put into the business) to arrive at your Return on Investment.

$$\text{RETURN ON INVESTMENT} = \frac{\text{net profit after taxes}}{\text{owner's investment}}$$

(5) Calculate Return on Investment for a five-year period.

EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

(1) Gross Margin Percentage = $1.00 - .67 = .33$

(2) Total Operating Expenses = \$92,000

(3) Break-Even Sales = $\frac{\$92,000}{.33} = \$278,800$

(4) Return on Investment = $\frac{\$1,042}{\$33,000} = 3.2\%$

SCHEDULE FOR RETURN ON INVESTMENT

| | <u>1989</u> | <u>1990</u> | <u>1991</u> | <u>1992</u> | <u>1993</u> |
|------------------------|-------------|-------------|-------------|-------------|-------------|
| Net Profit after Taxes | \$1,042 | \$4,392 | \$8,141 | \$11,756 | \$15,338 |
| Owner's Investment* | 33,000 | 34,042 | 38,434 | 46,575 | 58,331 |
| Return on Investment | 3.2% | 12.9% | 21.2% | 25.2% | 26.3% |

*Net Profit after Taxes added to actual investment to arrive at Owner's Investment for next year:

e.g. $\$33,000 + \$1,042 = \$34,042$
 $\$34,042 + \$4,392 = \$38,434$
etc.

SECTION D
VENTURE FEASIBILITY
STEP 9: FINAL DECISION

■ QUESTION I

"Should I go ahead with the venture?"

The decision on whether to go ahead with the venture is the final and most important decision you will have to make.

Use the answer guide in making this decision.

■ ANSWER GUIDE

- (1) Review the information on (a) Break-Even Sales and (b) Return on Investment.
- (2) Compare Break-Even Sales with the Market Share Target.
- (3) Compare the Return on Investment figure with the return you would receive from a fixed/term deposit.

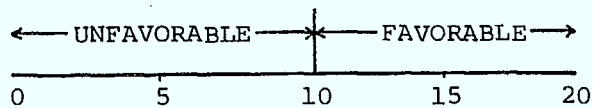
(4) Make the decisions as follows.

From the statements below, select the one that applies:

| | <u>SCORE</u> |
|---|--------------|
| <input type="checkbox"/> Market Share Target is greater than Break-Even Sales by at least 5%. | 10 |
| <input type="checkbox"/> Market Share Target is greater than Break-Even Sales by less than 5%. | 5 |
| <input type="checkbox"/> Market Share Target is less than Break-Even Sales. | 0 |
| <input type="checkbox"/> Return on Investment is at least 10 percentage points more than the rate of interest you would get on a fixed/term deposit. | 10 |
| <input type="checkbox"/> Return on Investment is between 10 and 5 percentage points more than the rate of interest you would get on a fixed/term deposit. | 8 |
| <input type="checkbox"/> Return on Investment is between 1 and 5 percentage points more than the rate of interest you would get on a fixed/term deposit. | 5 |
| <input type="checkbox"/> Return on Investment is less than the rate of interest you would get on a fixed/term deposit. | 0 |

(5) Total the score.

(6) Check the score on the scale provided below:



EXAMPLE CHILDREN'S WEAR AND EQUIPMENT STORE

| | | |
|--|----------------|-----------------------|
| Market Share Target | \$283,000 | |
| Break-Even Sales | <u>278,800</u> | |
| Difference | <u>\$4,200</u> | |
| Percentage Difference | 1.5% | |
| Score | | 5 points |
| Return on Investment | 17.8% | (average for 5 years) |
| Rate of interest on fixed/term deposit | <u>10.0</u> | |
| Difference | <u>7.8%</u> | |
| Score | | <u>8</u> points |
| Total Score | | <u>13</u> points |

DECISION _____ GO AHEAD!

SECTION D
VENTURE FEASIBILITY
SUMMARY

■ SUMMARY

As in Sections A, B, and C, summarize the answer to the questions in the form of a summary analysis, making reference to your findings on the Break-Even Market Share and Return on Owner's Investment.

Use the completed example as your guide.

Section D

VENTURE FEASIBILITY

The selected Market Share Target was \$283,000 which represented 20% of Total Market Potential. However, we have determined that sales of \$278,800 are required to cover Operating Expenses.

The average Return on Investment is 17.8%, whereas a 10% return would be received from a fixed/term deposit.

Based on this information, it is apparent that the venture is feasible.

USING THE WORKSHEET

WHEN YOU FINISH:

| Section A MARKET FEASIBILITY | |
|--|---|
| Step 1 - Estimate Total Market Potential | } |
| Step 2 - Estimate Market Share | |

| Section B OPERATING FEASIBILITY | |
|---|---|
| Step 3 - Estimate Building, Fixturing, and Equipment Requirements | } |
| Step 4 - Estimate Cost of Merchandise | |
| Step 5 - Estimate Cash Operating Expenses | |
| Step 6 - Estimate Other Expenses | } |

| Section C FINANCIAL FEASIBILITY | |
|------------------------------------|---|
| Step 7 - Complete Worksheet | } |

COMPLETE
LINE NO.

1

2

4

5

6

7

8

9

10

11

12

3

9

10

11

13

16

WORKSHEET EXAMPLE

CHILDREN'S WEAR AND EQUIPMENT STORE

| PROFIT AND LOSS AND CASH FLOW | | | | | |
|-------------------------------|-------------|-------------|------------|------------|------------|
| | 19 89 | 19 90 | 19 91 | 19 92 | 19 93 |
| 1 Sales | \$283,000 | \$297,160 | \$312,000 | \$327,600 | \$344,000 |
| 2 Cost of Sales | 139,610 | 199,097 | 209,040 | 219,492 | 230,480 |
| 3 Gross Profit | 93,390 | 98,063 | 102,960 | 108,108 | 113,520 |
| 4 Cash Operating Expenses | 69,800 | 74,290 | 78,000 | 81,900 | 86,000 |
| 5 Interest--Term Loan | 7,200 | 6,067 | 4,797 | 3,376 | 1,780 |
| 6 Interest--Demand Loan | 2,400 | 1,896 | 1,444 | 945 | 381 |
| 7 Depreciation | 12,600 | 9,954 | 7,864 | 6,212 | 4,908 |
| 8 Total Expenses | 92,000 | 92,207 | 92,105 | 92,433 | 93,069 |
| 9 Net Profit before Taxes | 1,390 | 5,856 | 10,855 | 15,675 | 20,451 |
| 10 Income Tax (@25%) | 348 | 1,464 | 2,714 | 3,919 | 5,113 |
| 11 Net Profit after Taxes | 1,042 | 4,392 | 8,141 | 11,756 | 15,338 |
| 12 Depreciation | 12,600 | 9,954 | 7,864 | 6,212 | 4,908 |
| 13 Cash Flow from Operations | 13,642 | 14,346 | 16,005 | 17,968 | 20,246 |
| 14 Repayment of Principal | (9,444) | (10,577) | (11,847) | (13,268) | (14,864) |
| 15 (Demand Loan)/Bank Balance | (20,000) | (15,802) | (12,033) | (7,875) | (3,175) |
| 16 Actual Cash Flow | \$ (15,802) | \$ (12,033) | \$ (7,875) | \$ (3,175) | \$ 2,207 |

USING THE WORKSHEET

WHEN YOU FINISH:

| |
|--|
| Section A MARKET FEASIBILITY |
| Step 1 - Estimate Total Market Potential |
| Step 2 - Estimate Market Share |

| |
|--|
| Section B OPERATING FEASIBILITY |
| Step 3 - Estimate Building, Fixturing, and Equipment Requirements |
| Step 4 - Estimate Cost of Merchandise |
| Step 5 - Estimate Cash Operating Expenses |
| Step 6 - Estimate Other Expenses |

| |
|------------------------------------|
| Section C FINANCIAL FEASIBILITY |
| Step 7 - Complete Worksheet |

COMPLETE
LINE NO.

- ①
- ②
- ④
- ⑤
- ⑥
- ⑦
- ⑧
- ⑫
- ⑭
- ⑮
- ③
- ⑨
- ⑩
- ⑪
- ⑬
- ⑯

WORKSHEET

| PROFIT AND LOSS AND CASH FLOW | | | | | |
|-------------------------------|------|------|------|------|------|
| | 19__ | 19__ | 19__ | 19__ | 19__ |
| ① Sales | | | | | |
| ② Cost of Sales | | | | | |
| ③ Gross Profit | | | | | |
| ④ Cash Operating Expenses | | | | | |
| ⑤ Interest--Term Loan | | | | | |
| ⑥ Interest--Demand Loan | | | | | |
| ⑦ Depreciation | | | | | |
| ⑧ Total Expenses | | | | | |
| ⑨ Net Profit before Taxes | | | | | |
| ⑩ Income Tax (@__%) | | | | | |
| ⑪ Net Profit after Taxes | | | | | |
| ⑫ Depreciation | | | | | |
| ⑬ Cash Flow from Operations | | | | | |
| ⑭ Repayment of Principal | | | | | |
| ⑮ (Demand Loan)/Bank Balance | | | | | |
| ⑯ Actual Cash Flow | | | | | |

APPENDIX I

PRESENTATION FORMAT SHEETS

AN ANALYSIS TO DETERMINE THE FEASIBILITY

OF ESTABLISHING A

VENTURE

DATE: _____

INTRODUCTION

Section A

MARKET FEASIBILITY

1. TOTAL MARKET POTENTIAL

2. MARKET SHARE

Section B

OPERATING FEASIBILITY

Set out below are the following schedules:

- (a) Building, Fixturing and Equipment Schedule
- (b) Cost of Goods Sold Schedule
- (c) Cash Operating Expense Schedule
- (d) Capital Costs of Fixed Assets Schedule
- (e) Initial Working Capital Requirements Schedule
- (f) Principal and Interest Schedule
- (g) Depreciation Schedule

(a) BUILDING, FIXTURING AND EQUIPMENT SCHEDULE:

(b) COST OF GOODS SOLD SCHEDULE:

(c) CASH OPERATING EXPENSE SCHEDULE:

(d) CAPITAL COSTS OF FIXED ASSETS SCHEDULE:

FIXED ASSETS

AMOUNT

(e) INITIAL WORKING CAPITAL REQUIREMENTS SCHEDULE:

CATEGORY

AMOUNT

(f) PRINCIPAL AND INTEREST SCHEDULE:

| YEAR | PAYMENT | INTEREST PORTION | PRINCIPAL REPAYMENT | BALANCE OF PRINCIPAL |
|------|---------|------------------|---------------------|----------------------|
| | | | | \$. |
| 1 | \$. | \$. | \$. | \$. |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |

(g) DEPRECIATION SCHEDULE*:

| YEAR | DEPRECIATION EXPENSE | BALANCE TO BE DEPRECIATED |
|------|-------------------------|------------------------------|
| | | \$. |
| 1 | \$. | \$. |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |

* ___% depreciation rate assumed

Based on the above schedules, we have prepared a pro forma profit and loss together with a cash flow schedule for the years 19__ to 19__ inclusive.

Section C

FINANCIAL FEASIBILITY

| PRO FORMA PROFIT AND LOSS, AND CASH FLOW SCHEDULE 19__ TO 19__ | | | | | |
|--|------|------|------|------|------|
| | 19__ | 19__ | 19__ | 19__ | 19__ |
| 1. Sales | \$ | \$ | \$ | \$ | \$ |
| 2. Cost of Sales | | | | | |
| 3. Gross Profit | | | | | |
| 4. Cash Operating Expenses | | | | | |
| 5. Interest--Term Loan | | | | | |
| 6. Interest--Demand Loan | | | | | |
| 7. Depreciation | | | | | |
| 8. Total Expenses | | | | | |
| 9. Net Profit before Taxes | | | | | |
| 10. Income Tax (@ %) | | | | | |
| 11. Net Profit after Taxes | | | | | |
| 12. Depreciation | | | | | |
| 13. Cash Flow from Operations | | | | | |
| 14. Repayment of Principal | () | () | () | () | () |
| 15. (Demand Loan)/Bank Balance | () | | | | |
| 16. Actual Cash Flow | | | | | |

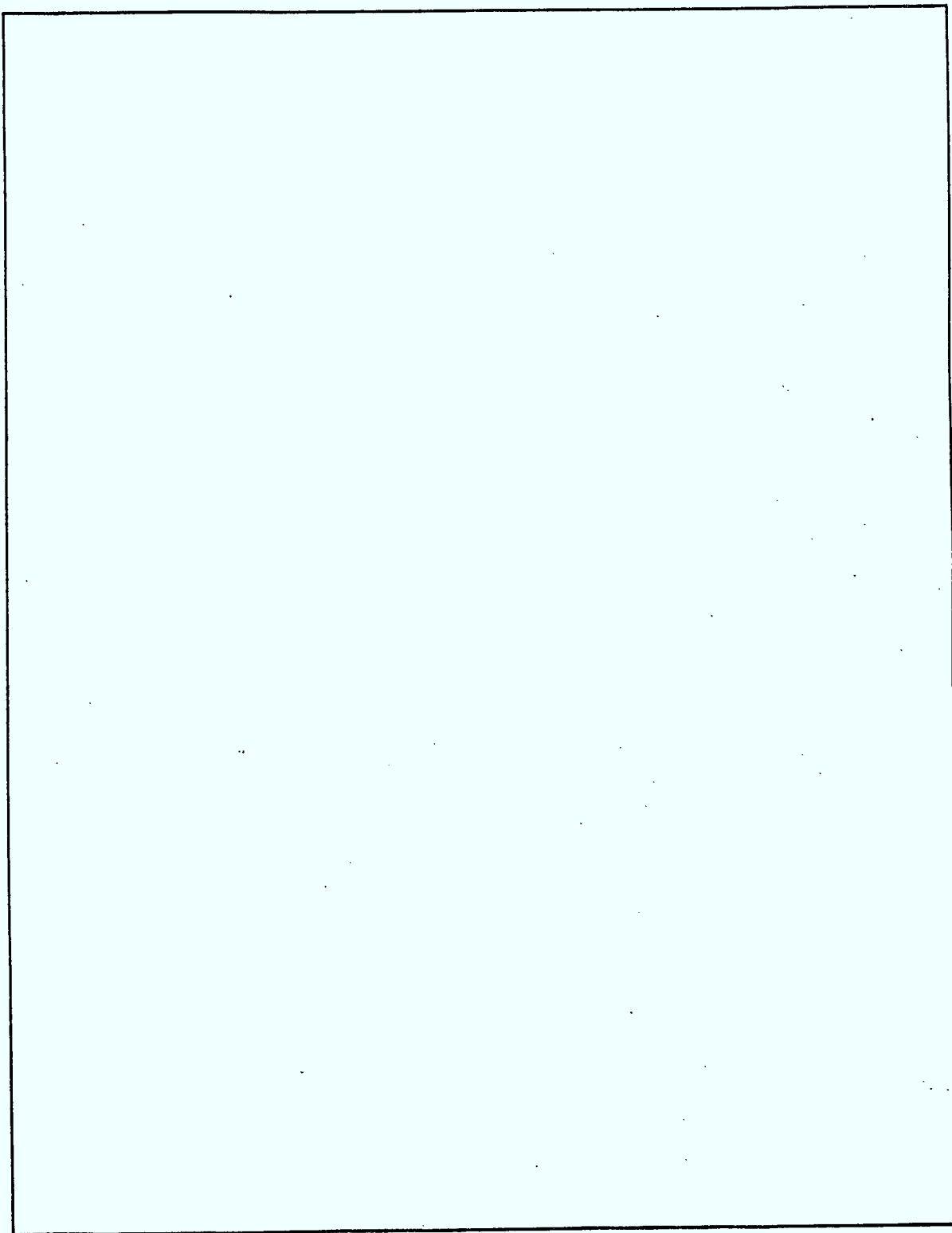
PRESENTATION FORMAT SHEETS

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Section D

VENTURE FEASIBILITY

NOTES



NOTES

