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in the lodging industry...

management through figures



cooperative extension service
michigan state university

in the lodging industry...

management through figures

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INTRODUCTION

Every manager wants his business to succeed. Yet, there are wide variations in profitability among similar businesses. Why?

One of the most common causes for such variation is the manager's lack of understanding of accounting statements and how to put this information to work. The most successful managers spend many hours each week studying financial statements. Using various analysis techniques, they are able to obtain data and formulate decisions which will increase the earning power of the business.

Developing this improved managerial ability requires fluency in the language of accounting, understanding and practice in the use of accounting statements, formulation of profit objectives, capital budgeting, and experience in applying and measuring the effects of specific financial decisions. Since the composition of assets are largely long-lived assets (compared to inventory, receivables, and cash), advantageous solutions to depreciation and obsolescence of long-lived assets are necessary.

Your own satisfaction and financial success as the manager of a motel, hotel, resort or similar lodging business depends largely upon your ability to use figures and financial statements. This bulletin is designed to help you develop such skills.

Full application of the concepts and methods described here can only be achieved through a clear understanding of terms which are used in accounting and financial management. A glossary of accounting language for the lodging industry can be found on pages 18 and 19.

Cover photo: *Tourist Court Journal*, Temple, Texas

ACCOUNTING AND THE MANAGEMENT FUNCTION

Accounting services provide an essential part of the information system that a manager needs to make rational conclusions and strategic decisions. To formulate the best short and long-range goals and plans for your business, you must be concerned with internal controls, financial planning and objectives, financial statements and their uses, break-even, setting rates and prices, capital budgeting, and managing fixed assets.

Internal Controls

Rigorous internal controls, such as accounting for all funds, are powerful agents of management. Thus, discretion is important in the supervision of persons who are involved in handling funds and preparing monetary reports.

These internal controls are the everyday working tools of the manager and those supervisors working under him who are responsible for the orderly, accurate recording and reporting of book-keeping transactions. The number and form of such internal controls depend upon the nature and size of the business. Some areas of control:

1. *Cash received* — Cash reported as received by clerks, waitresses, cashiers or others should be independently reconciled with the recording of the amounts they "should be reporting", as received. All cash receipts should be deposited intact in the bank, thus making payments out of cash receipts impossible.
2. *Bank reconciliations* — Made monthly by someone not involved in cashiering or accounting.
3. *Receipts and payment vouchers* — Should be recorded by the accountant, but not handled or controlled by the accountant.

4. *Copies of purchase orders* — Sent to the receiving clerk or steward without showing quantities ordered. Quantities actually received are entered by the receiving clerk based upon inspection and count. Additional checks can be made by having another independent count made by the storeroom clerk as the items are delivered to the storeroom. Reports are then compared with original orders to be sure all items ordered were received.

5. *Other departments* — Supervisors in other departments can be designated as property accountability officers and be required to maintain essential records of property. These records should include location, number, use, condition, and replacement schedule. However, such officers should not have control of property purchase, transfer, or disposal.

Avoid time-wasting duplication of internal checks. The only purpose of such checks is to insure honesty and accuracy.

Planning

With good accounting, the manager is in a superior position to foresee what is likely to happen. Armed with accurate and complete financial data and ratios, he can consider a number of alternative courses of action and fairly accurately predict outcomes. Managerial creativity is an essential success ingredient and the new goals must be reasonably attainable. To check the success of a new plan of operations, several accounts will need to be reviewed. Be sure that these accounts correspond exactly with past historical records so that the effect of the new plan can be determined.

FINANCIAL OBJECTIVES

The manager has two financial objectives—liquidity and profitability.

Liquidity

Bills owed by the business should be paid when due. Thus, cash must be kept on hand to pay bills and keep the good name and credit reputation of the business. However, too much cash on hand may not be desirable since these funds could be put to work to maximize the present value of future earnings.

An important concept to understand is that of cash flow. Cash flow is the profit left after federal, state, and local income taxes—the amount of cash actually available during an accounting period for debt reduction or other nonoperating usage (Fig 1).

If cash flow is readily known and can be predicted with reasonable accuracy, then the manager can determine what portion of the cash flow will be available to finance new additions, expansion, improvement, or other investments.

Cash flow includes funds represented by depreciation charges (a non-cash expense), even though depreciation is not usually considered a source of funds.

While an increase in depreciation charges does not proportionally increase cash flow, there would be an initial increase in cash flow from an increase in funds generated after income taxes (providing the business shows a profit). This is because the increase in depreciation charges reduces the profit subject to income tax.

A forecast of cash inflow and outflow is called a cash budget. The record of actual amounts of cash transactions which occur during a given period is called a cash receipts and disbursements

statement. Your monthly bank statement is actually such a cash receipts and disbursements schedule. The difference between inflow and outflow of cash equals the change in the cash balance between opening and closing dates of the bank statement.

These cash statements are not the same as income statements. To obtain an accurate statement of net income, charges—whether cash or non-cash—are made against revenue so that revenue and expense items are allocated to the fiscal period when incurred. Thus, profit as shown on the revenue and expense statement, and cash produced from operations are rarely the same.

Cash balances in most service businesses vary seasonally. Various adjustments are necessary so that bills can be paid when due, regardless of the month. Advantageous sales or purchasing schemes may have to be postponed unless cash is available or can be easily borrowed. The manager must constantly appraise his liquid position and maintain his cash balance so that borrowing can be readily accomplished, if necessary. However, if his cash balance is in good order, borrowing may not be necessary.

Profitability

The second financial objective of the manager is to assure that the business returns a satisfactory long-run return on investment—at least as high as the risk justifies. This requires two types of managerial effort: 1) An investment of funds in a business that makes the profit as large as possible, without jeopardizing necessary liquidity, and 2) the highest possible rate of return on the investment of funds without incurring too much risk. The nature of the external environment will affect returns considerably.

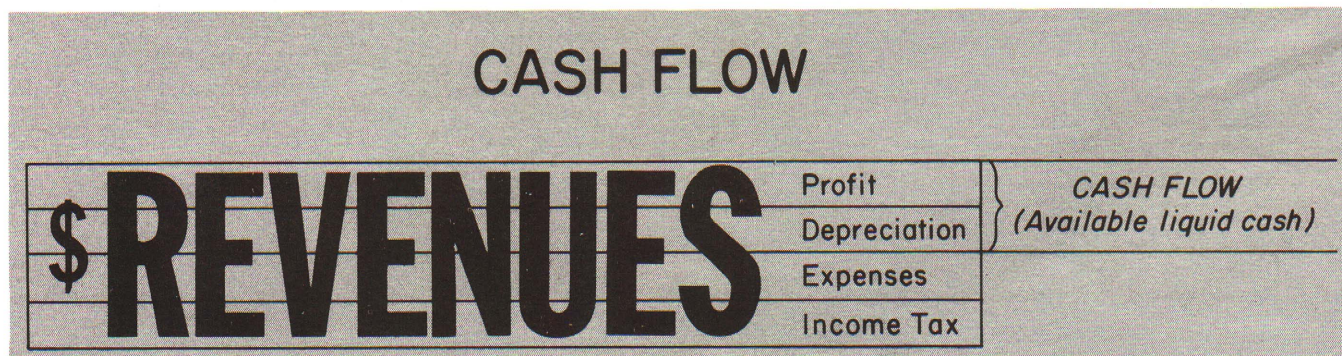


Figure 1 — Cash flow equals net profit, minus income taxes, plus added-back depreciation, providing the business is on a cash basis and does not have accounts receivable.

Making the Most Profit

The greater the profit on each dollar of sales and the more sales made for each dollar of operating assets (such as land, buildings, furnishings, equipment, and inventories), the higher the rate of return on each dollar of operating assets. Methods of maximizing profits include the following:

1. *Improving margin of profit on sales*—This can be accomplished by increasing sales volume more than expenses. Since many of the expenses of lodging businesses are fixed, even small increases in sales will result in improved profits. For example, new, more effective advertising, might increase sales.
2. *Reducing expenses proportionally more than sales*—Careful examination of each expense item may suggest methods by which savings can be made with no detriment to guest service and satisfaction. The use of non-iron sheets might be a good possibility.
3. *Improving turnover*—In restaurants and dining rooms, prompt table clearing makes dining accommodations more quickly available, for a faster turnover and higher gross sales.
4. *Reducing your investment in certain operating assets*—If more frequent deliveries can be made by your suppliers, inventories can be reduced—in effect, your supplier carries your inventories. This cash can then be invested in interest-bearing securities or in improvements or expansion which will help maximize the present value of future earnings. However, sufficient cash must be on hand to meet expenses.

5. *Raising (or lowering) prices*—Problems in the accommodations industry are never solved by lowering rates and prices. Experience has shown that demand for rooms does not rise proportionally. Thus, a review of your pricing policies (discussed later in this bulletin) could result in improved profits. Sometimes, small increases are not resented by guests and customers, but make a big difference in earnings.

Receiving a Higher Rate of Return

The other avenue to greater profits is to increase your rate of return on invested capital. Since this involves certain risks, a compromise must be made between profits and risk. If you can attract outside money by forming a corporation and selling preferred stock, you may be able to pay a lower rate of return on the preferred stock than the business earns from its present invested capital. For example, suppose your present earnings from the business, after income taxes, is 5 percent. If more money is needed to expand or improve the business and if the corporation could sell shares of preferred stock on which 4 percent dividends are paid, then the corporation receives "leverage" or earns more from the business than is paid for capital.

The legal form of the business does not really matter. Whenever you can obtain outside funds on which a limited return is to be paid, and exceed this rate by the earnings from the business, you will receive a greater return and favorable leverage.

FINANCIAL STATEMENTS AND THEIR USES¹

Every lodging manager knows that he must keep accurate records of business transactions for tax purposes. In addition, these accounts can provide valuable guides to increased profits.

From the managerial point of view, a good accounting system should enable the operator to:

1. Have a complete and permanent record of business transactions.
2. Safeguard his assets through internal control.
3. Plan and control every phase of his operation for greatest profitability.

Permanent Records

The first of these requirements is basic. Without an initial recording of transactions, there is no way to carry out the major functions of a classification of accounts. The actual method of recording is secondary, for it is of little value in itself. Only the results of recorded transactions are of value to the manager.

The primary purpose of record-keeping is to satisfy legal requirements. Law-making bodies demand written evidence of the history of a business for analysis for tax purposes and other reasons. Many businessmen are unable to make the best use of these records because they do not keep them up-to-date sufficiently to get the needed information at the proper time. Thus, the other two main purposes of accounting records are defeated.

¹Adapted from *Uniform Classification of Accounts for Motels and Motor Hotels*, Washington: Motel Association of America, 1965.

Safeguarding Assets

The second function of a well designed accounting system, safeguarding assets, is accomplished through various methods of checks and duplications, and is needed to overcome human error—both intentional and accidental. Many smaller lodging operators who own their businesses and operate them only with members of their immediate families, may scoff at the mention of a need for a system of check and re-check. But, they overlook the fact that such a system can help them detect "honest" errors. In addition, this system can expose fraudulent activities of hired employees.

It is this phase of accounting, safeguarding assets, that is lacking in many operations. Managers who fail to place any significance on depreciation or maintenance policies often are unable to finance necessary replacement items. A very common error is to consider cash in the bank and net profits as the same thing.

Planning and Controlling Operations

The third function of an accounting system is to plan and control operations. Here, the lodging industry shares a problem common to other service-type operations—its merchandise has a total daily perishability. At the end of a day's operation, any room not rented is merchandise which has perished. A drop in the rate of occupancy required for profitable operations means that any potential profit may soon be wiped out. If revenue drops significantly, the uninformed operator may lose his investment as fixed expenses continue to face him. Likewise, profitability of related income-producing activities such as the operation of a restaurant or gift shop, can be shown by accurate operating data, provided only through good records.

The value of a good accounting system is seen through the example of the motel manager who is deciding whether to provide kitchen facilities for his guests. His decision should be based on the amount of added revenue a kitchen unit will produce over that of a hotel-type room, taking into consideration increased costs incidental to its operation—china breakage, depreciation and additional maintenance. Another managerial problem which can best be solved only by careful analysis of past experience (as shown by records) concerns what percentage of each room type—single, double, twin or suite—should be provided.

The specific problems each individual manager must face vary according to location, type of clientele, seasonal variations and other factors. Thus, each manager should be able to identify those items which relate to his own specific problems.

Keeping Records

Begin by keeping accounts which are true and applicable. Know the objectives of keeping such accounts. Know their value to the well-being of your business. Use this information to improve management, efficiency and profits.

For motels, organize your accounts in accordance with the *Uniform Classification of Accounts for Motels and Motor Hotels*.² This classification has been carefully formulated to meet all of the qualifications for good managerial application. When there is a food service or other major income-producing department involved, similar accounts should be kept.

These accounts can be used to provide essential data needed in lodging management. Study the daily and monthly reports for two types of vital information: (1) actual dollar results from operations, and, (2) results of any changes you may have made in managerial policy.

With regard to point 2, the only way in which the effects of new methods or services can be measured is through adequate financial reports. You may decide to offer breakfast or some similar new service, but until you have reliable figures to reflect these changes, you are in the dark about their profitability.

Illustrated below is the effect on motel occupancy and rates for a 40-unit motel which opened a new restaurant the first of August:

Daily or Monthly Managerial Information

	July	August
Number of Rooms	40	40
Number of days in month	31	31
Number of rooms available to guests (40 x 31)	1,240	1,240
Number of rooms occupied (from sales acct's)	915	994
Percentage of occupancy (915 ÷ 1,240) and (994 ÷ 1,240)	73.7%	80.1%
Room sales	\$7,640.25	\$8,415.30
Average rate per room (\$7,640.25 ÷ 915) and (\$8,415.30 ÷ 994)	\$8.35	\$8.47
Number of guests registered	1,415	1,522
Average rate per guest (\$7,640.25 ÷ 1,415) and (\$8,415.30 ÷ 1,522)	\$5.40	\$5.53

² Available from Motel Association of America, 1025 Vermont Avenue, N.W., Washington, D.C. 20005. For hotels, the *Uniform System of Accounts for Hotels* is available from the American Hotel and Motel Assoc., 221 W. 57th St., New York, N.Y. 10019.

If this pattern continues, the new restaurant will have a very good effect on room sales and occupancy in the motel. An increase in business can also result from more effective signs or advertisements, more tourists, etc.

Running or cumulative sales totals for each day, monthly-to-date, and yearly-to-date, can provide vital management information. For example, total room sales for the first 10 days in June of this year (monthly to-date), can be compared to the monthly-to-date sales for the same period of last year. Yearly-to-date sales (cumulative sales for the year up to June 10), can also be compared with those from the same period last year to quickly determine trends. An example showing how these figures are presented is given at bottom of page.*

Monthly Revenue and Expense Statement (Income Statement)

In addition to reviewing daily and monthly managerial data, it is important to check your monthly record of operating expenses and income.

To prepare the monthly Revenue and Expense Statement, first include a summary of room sales for the month. Then, list controllable operating expenses.

An estimated monthly charge for fixed expenses is necessary. These are charges such as depreciation, insurance, taxes and interest, which may be estimated from this year or previous year figures.

Look carefully at every figure on the monthly statement to locate any hidden meanings or implications. Why was a particular amount low or high? Should it have been lower or higher? What can be done to improve the situation? Try to find answers to these types of questions.

Important items which should be studied, checked and compared are: (1) salaries and wages for employees and the efficiency of these employees, (2) whether expenses are properly classified for uniform comparisons with industry trends and ratios, (3) whether rentals paid for use of assets are reasonable and commensurate, (4) Is depreciation realistic and in line with current practice in the industry? (5) Have all risks been covered with insurance of sufficient amount? (6) Is the level or amount of profit sufficient to provide a fair rate of return on investment?

Next, compare each item on the statement with comparable previous periods. Check each major item to determine trends. Corrective action can then be initiated, since the basis for action is a solid foundation of usable, financial facts.

A further use of good individual accounts and representative trade data is for obtaining credit.

Bankers and other lending institutions require all obtainable information when deciding whether to grant credit. The man who is best informed about his own operations and current trends in the trade is most likely to get the loan.

Annual Revenue and Expense Statement (Income Statement)

Like daily and monthly reports, this statement should be studied carefully—for a longer, overall view of your operation.

Precise and meaningful interpretations can be made by determining the ratios between various costs and earnings, usually expressed as a percentage. For example, if room sales were \$80,000, and salaries and wage expenses were \$20,000, the ratio of these expenses would be 25 percent. ($\$20,000 \div \$80,000$). The \$80,000 is a common denominator for computing each ratio.

Compute the ratios of each of your expense items in relation to room sales. Room sales are considered to be 100 percent so that the ratios of all of the expenses plus profits will equal 100 percent.

Next, compare your ratios to several kinds of bases or standards. These standards can be (1) your own judgment based upon experience and evaluation, (2) past performance found by comparing this period with the same period last year, and with other comparable periods, and (3) typical performances of other similar businesses as reported in research reports of lodging operating statements or averages³ (Fig. 2).

Universal adoption of the *Uniform Classification of Accounts for Motels and Motor Hotels* and the *Uniform System of Accounts for Hotels* would result in reliable data which can be used with confidence. In these manuals, all of the financial transactions have been classified on the same basis. Thus, you can see how you are actually succeeding compared to similar businesses.

Balance Sheet

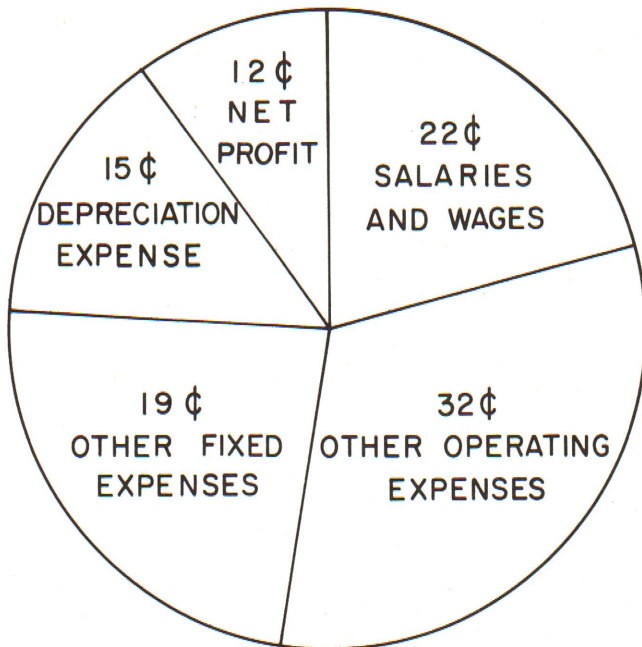
This statement can also provide significant managerial data. The successful manager uses the balance sheet to make comparisons of the amounts

³Examples of sources of such reports are *Tourist Court Journal*, *Lodging Hospitality Magazine*, and other journals; *Trends in the Hotel-Motel Business* published annually by Harris, Kerr, Forster & Co., Chicago, and *Hotel Operations* published annually by Lavenhol, Krekstein, Horwath & Horwath, New York.

*

Item	Today	To Date	Year Ago To Date	Monthly To Date	Mo. to Date Year Ago
Room Sales	\$220.50	\$30,450.00	\$28,991.50	\$2,205.00	\$1,874.50

WHERE THE MOTEL DOLLAR GOES



Source: Tourist Court Journal, July, 1968.

Figure 2 — Average distribution of the motel room dollar in the United States.

and the relationships of assets, liabilities and proprietorship (the excess of assets over liabilities). Each part of these three major divisions of the balance sheet should be studied and compared to previous balance sheets.

Of particular importance is the amount of the lodging owner's proprietorship or equity. This should increase as the business grows and prospers.

Estimating Revenue and Expenses

The following form will be helpful for estimating future revenue and expenses. The form could be inexpensively reproduced for making periodic estimates.

The first column of the form is for estimated dollar amounts. The second column is for the conversion of these amounts to percentages of "room sales." Thus, if room sales were \$50,000 and employees wages and salaries were \$10,000, the latter item would be 20 percent ($\$10,000 \div \$50,000$) of room sales.

This type of study is sometimes called "common-size analysis" since all amounts are divided by the common sales figure—in this example, \$50,000.

This proforma statement can be very useful in computing the break-even point, estimating expenses, profits, cash flow, and comparing similar businesses.

Pro Forma Revenue & Expense Statement

REVENUE:

Room Sales \$ 100%

CONTROLLABLE OPERATING EXPENSES:

Manager's Salary (or Owner's Allowance)
 Employee's Wages and Salaries
 Payroll Taxes, Ins. and Benefits
 Total Wages and Benefits
 Laundry and Dry Cleaning
 Linen Cost (Consumed, Replacements, Rentals)
 Guest Room Supplies
 Cleaning Supplies
 Advertising and Sales Promotion
 Commissions, Discounts, and Allowances
 Telephone and Telegraph
 Dues, Subscriptions, and Contributions
 Fuel, Electricity, and Water
 Travel and Automotive Expenses
 Repairs, and Maintenance
 Office Supplies, Services, and Postage
 Cash Over and Short
 Other Operating Expenses

Total Controllable Operating Expenses \$

GROSS OPERATING REVENUE

FROM ROOMS \$

MISCELLANEOUS SOURCES

OF INCOME \$

Gross Profit from Merchandise Sales
 Income from Food Service
 Income from Vending Machines
 Income from Leased Facilities
 Other Income

Total Miscellaneous Income \$

PROFIT AVAILABLE FOR FIXED

EXPENSES AND TAXES \$

FIXED EXPENSES:

Rent — Land and Buildings
 Rent — Equipment and Furnishings
 Insurance
 Taxes — Other than Income Tax
 Licenses
 Interest Expense
 Depreciation
 Amortization — Intangibles

Total Fixed Expenses \$

NET INCOME FROM

OPERATIONS \$

BREAK-EVEN OR MARGINAL ANALYSIS⁴

One of the most useful financial tools of the manager is the break-even concept. The break-even point is that point during a successful year when revenue from total room sales exactly equals expenses (Fig. 3). This figure can be used to make advantageous decisions concerning rates, prices, effect on operating costs and profits. The following discussion relates to rental of motel or hotel rooms, but the method shown can be applied to any small business.

Before discussing this relationship of prices to profits, a review of some fundamental assumptions will be helpful.

Basic Assumptions

1. Room rates will not change with changing volume of business.
2. Costs and expenses can be segregated into their fixed and variable elements with reasonable accuracy.
3. Total fixed, or stand-by costs will remain nearly constant during the periods over which estimates are being made.
4. Variable expenses will generally vary in direct proportion to the volume of business activity.
5. Where several different room types and rates are involved, the relationship of these rates will remain constant.

Knowledge of the break-even concept can be useful to the individual lodging manager for profit-planning, decision-making, and general control over the operation. We shall first examine the break-even point with a very simple case and then consider it in more detail. All figures used in the following hypothetical illustrations have been rounded-off.

Illustration 1

The motel has 10 rooms or units, which are all the same. Average room rate is \$8.00. Fixed costs total \$7,500 per year. Variable costs are \$3.20 per room, or 40 percent of the \$8.00 room price.

The break-even room-sales point is computed as follows:

$$\frac{\text{Fixed Expenses}}{(100\% - \% \text{ Variable Costs})} = \frac{\$7,500}{(100\% - 40\%)} =$$

$$\frac{\$7,500}{60\%} = \$12,500$$

THE BREAK-EVEN CONCEPT

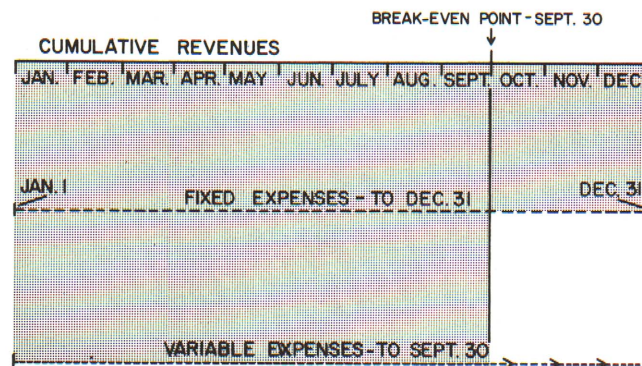


Figure 3 — Break-even is that point in the business year when total cumulative revenue equals fixed expenses for the year plus the variable expenses up to that date. Computed in advance, the break-even is illustrated above for an inn which broke even on September 30.

If break-even room sales are \$12,500, then 1,562 rooms must be rented to break-even (\$12,500 ÷ \$8.00 room rate). Since there are 10 rooms in the motel, 3,650 rooms are available to rent for the year (10 rooms x 365 days). With a break-even point of 1,562 rooms, then, our break-even occupancy rate is approximately 43% (1,562 rooms ÷ 3,650 rooms — Fig. 4).

Illustration 2

Using the same basic data as in Illustration 1, but reducing room rate to \$7.00, we find the new break-even point as follows:

$$\frac{\text{Fixed Expenses}}{(100\% - \% \text{ Variable Costs})} = \frac{\$7,500}{(100\% - 46\%)} =$$

$$\frac{\$7,500}{54\%} = \$13,889$$

(Note: With room price now \$7.00, the new variable rate is 46% (\$3.20 ÷ \$7.00).

If break-even room sales are \$13,889, we must rent 1,984 rooms to break even (\$13,889 ÷ \$7.00 room rate). A break-even point of 1,984 rooms represents a break-even occupancy rate of 54% (1,984 rooms ÷ 3,650 rooms).

⁴From Kemper W. Merriam, Professor of Accounting, College of Business Administration, U. of South Florida, Tampa.

EFFECT OF RATE CHANGES ON BREAK-EVEN

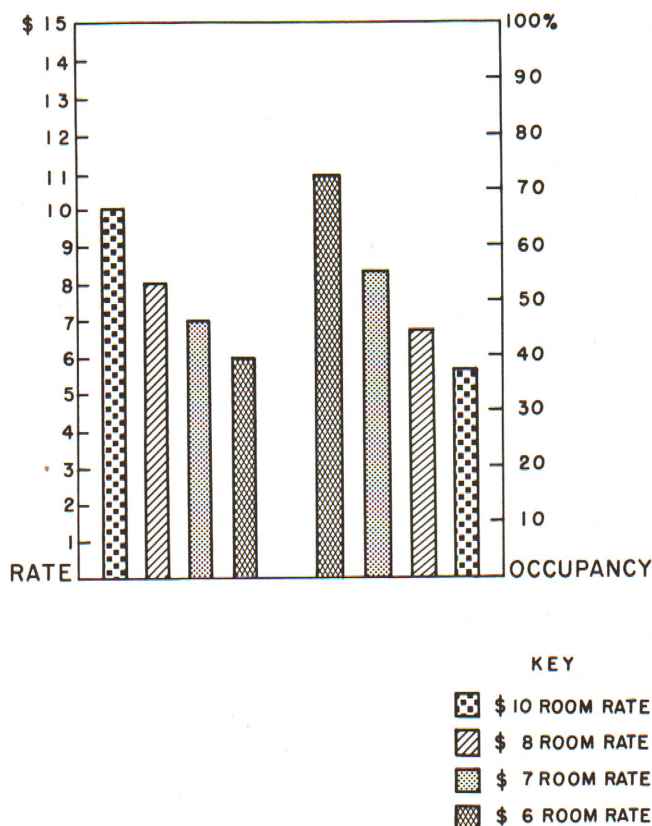


Figure 4 — Relationships between average room rate and occupancy to break-even show that the higher the average room rate, the lower percentage occupancy needed to break-even. There is no relationship between room rates and costs shown, i.e., raising or lowering rates has no effect on costs.

Illustration 3

Using the same basic data as in the earlier illustrations, but reducing the room rate to \$6.00, we find the new break-even point as follows:

$$\frac{\text{Fixed Expenses}}{(100\% - \% \text{ Variable Costs})} = \frac{\$7,500}{(100\% - 53\%)} =$$

$$\frac{\$7,500}{47\%} = \$15,957$$

(Note: With room price now \$6.00, the new variable rate is 53%, or $\$3.20 \div \6.00 .)

If break-even room sales are \$15,975 and the room rate is \$6.00, we must rent a total of 2,660 rooms to break even at the \$6.00 rate. This requires an occupancy rate of about 73% percent ($2,660 \text{ rooms} \div 3,650 \text{ rooms available}$)—just to break even!

Applications of Break-Even Analysis to a Larger Motel

The following is the operating statement for a hypothetical 30-unit motel prepared in accordance with the *Uniform Classification of Accounts for Motels and Motor Hotels*.

FRIENDLY MOTEL

Revenue and Expense Statement for the Year Ending December 31, 19____

Revenue:	(Amount)	(Percent)
Room Sales	\$61,320	100.00
Operating Expenses — Controllable:		
Salaries and Wages . .	\$13,890	22.65
Laundry, Dry Cleaning & Uniforms	2,564	4.18
Linen Costs	1,030	1.68
Guest Room Supplies	690	1.12
Cleaning Supplies . . .	805	1.32
Advertising and Sales Promotion	548	.89
Commissions, Discounts & Allowances	202	.33
Dues, Subscriptions, Contributions	480	.78
Telephone & Telegraph	1,073	1.75
Office supplies, Post- age, Services	380	.62
Travel and Automobile Expense	900	1.47
Fuel, Water & Electricity	3,606	5.88
Repairs and Maintenance	2,894	4.72
Other Operating Expenses	1,844	3.01
Total Controllable Expenses	\$30,906	50.40
Gross Operating Profit ..	\$30,414	49.60
Capital Expenses:		
Rent	1,932	3.15
Licenses and Taxes . .	2,195	3.58
Insurance	662	1.08
Interest	4,857	7.92
Depreciation	12,110	19.75
Total Capital Expenses	\$21,756	35.48
Net Profit	\$ 8,658	14.12

Notes: This motel had an occupancy rate of 70 percent and an average room rate for the year of \$8.00. Average room rate was computed by determining total number of rooms

available during the year (30 units x 365 days, or 10,950) and multiplying this by the 70 percent occupancy to determine total number of rooms actually rented. Dividing the gross revenue of \$61,320 by the number of rooms actually rented gives the average room rate of \$8.00.

Our basic assumptions require us to segregate the fixed and variable elements of a semi-variable cost. The cost of utilities is an example. The fixed cost of electricity would be for general grounds, mechanical equipment, offices, etc., which would be consumed even though no units were rented. The balance of electrical costs would represent the variable portion. This involves a certain amount of guess-work and judgment. After we have made the necessary analysis of the items of semi-variable expense, we then differentiate them into fixed and variable expenses. The following listings were prepared from the Revenue and Expense Statement of the Friendly Motel.

Separating Fixed & Variable Expenses

ITEM	FIXED	VARIABLE
Property Taxes and Licenses	\$ 2,195	
Insurance	662	
Interest	4,857	
Rent	1,932	
Depreciation	12,110	
Salaries	3,416	
Wages (hourly workers) .		\$10,474
Utilities	800	2,806
Advertising and Business Promotion	548	
Telephone and Telegraph	240	833
Dues, Subscriptions and Contributions	480	
Travel and Automobile Expense	900	
Laundry, Dry Cleaning and Uniforms		2,564
Cleaning Supplies		805
Office Supplies		380
Commissions, Discounts and Allowances		202
Repairs and Maintenance		2,894
Linen Costs		1,030
Room Supplies		690
Miscellaneous Operating Expenses		1,844
TOTAL	\$28,140	\$24,522

On the basis of the preceding analysis of our costs, we now find that total fixed expenses were

\$28,140 and variable expenses \$24,522 for the year. Percentage of variable expenses is determined by dividing total variable expenses by total revenue (\$24,522 ÷ \$61,320), or, 40 percent.

Since we have found the average room rate during the year to be \$8.00 and we know that variable expenses during that year were 40 percent of revenue, we also know that the variable costs per room rented were \$3.20 (\$8.00 x 40 percent).

Based upon these facts, the break-even point, in dollars, for the hypothetical Friendly Motel is computed as follows:

$$\text{Break-Even Room Sales} = \frac{\text{Fixed Expenses}}{(100\% - \% \text{Variable Costs})} = \frac{\$28,140}{(100\% - 40\%)} = \frac{\$28,140}{60\%} = \$46,900$$

With average room rate \$8.00, the break-even occupancy rate would be computed as follows:

$$\text{Break-Even Sales} = \frac{\$46,900}{\$8.00} = \frac{\$46,900}{\$8.00}$$

5,860 rooms, or 53½ percent occupancy
(5,860 ÷ 10,950 rooms available)

Illustration 1 — Price Reduced \$1.00

Now, assume that we lower our average room price \$1.00. Since variable costs per room are still \$3.20, variable expenses would be 46 percent (\$3.20 ÷ \$7.00 room rate).

Break-even room sales when the average room price is lowered to \$7.00:

$$\frac{\text{Fixed Expenses}}{(100\% - \% \text{Variable Costs})} = \frac{\$28,140}{54\%} = \$52,100$$

The break-even occupancy rate is:

$$\frac{\text{Break-Even Sales}}{\$7.00} = \frac{\$52,100}{\$7.00} =$$

7,443 rooms, or 68 percent occupancy

Illustration 2 — Price Reduced \$2.00

Now, assume that we lower our average room price by another \$1.00. Since variable costs per room are still \$3.20, variable expenses are 54 percent (\$3.20 ÷ \$6.00).

Break-even room sales with average room price lowered to \$6.00:

$$\frac{\text{Fixed Expenses}}{(100\% - 54\%)} = \frac{\$28,140}{46\%} = \$61,200 =$$

10,200 rooms, or 93 percent occupancy

All of the above illustrations show only the break-even point. Any business, however, wants an operating profit. In the last illustration, a 93 percent occupancy rate is needed *just to break-even* . . . there is no profit to this point if average room prices are dropped from \$8.00 to \$6.00!

Other Uses of Break-Even Analysis

Let us assume that the Friendly Motel is planning to add a swimming pool, air-conditioning, or something that will increase costs. Such changes tend to increase only fixed expenses.

If we assume that such a program will increase fixed costs by approximately \$300 per month, or \$3,600 for a year, fixed costs will then be \$31,740 (\$28,140 + \$3,600).

The new break-even sales point, therefore, would be figured as follows:

$$\frac{\text{Fixed Expenses}}{(100\% - \% \text{ Variable Costs})} = \frac{\$31,740}{60\%} = \$52,900$$

Since the new break-even point is \$52,900 and the previous break-even point was \$46,900, room sales revenue must increase by at least \$6,000 for the year just to break-even on this proposed change. With an average room rate of \$8.00, it will be necessary to rent an additional 750 rooms for the year (\$6,000 ÷ \$8.00).

The new break-even occupancy rate is about 60 percent compared to 53½ percent before the expansion proposal.

Break-Even Cash Requirements

The cash break-even point is that point in the year when all cash received just equals all cash paid out. This includes cash paid as principal on mortgages, income tax payment, or payments on durable equipment or furnishings.

To find the cash break-even point instead of profit break-even point, merely substitute fixed cash mortgage payments and other monthly payment obligations in place of the depreciation and interest figures in the original fixed expense computations. All other expenses already represent cash outlays.

The cash break-even point may be considerably higher than the profit break-even point if the motel is faced with heavy mortgage and installment contract payments.

Profit-Estimating or Profit-Planning

It is also possible to use the findings of the Friendly Motel example for profit-planning or

guidance. If variable expenses are 40 percent, then each dollar of sales after the break-even point represents a 60 percent profit.

This is because 40 cents of each dollar of room sales revenue goes toward the variable costs per room, and the balance of each dollar contributes toward the payment of the fixed expenses. But, at the break-even point, all of the fixed expenses have been covered. Thus, for the remainder of the fiscal year, only the variable expenses must be met, leaving a 60 percent profit.

Increasing Average Room Rates

We have considered only the result of a room price decrease, but you may also wish to consider the effect of a price increase on needed occupancy percentage and profits.

Using data from the Friendly Motel where fixed costs were \$28,140 and variable costs \$3.20 per room, let's assume prices are increased to \$10.00 per room. This would make variable expenses 32 percent (\$3.20 ÷ \$10.00). The new break-even point would be computed as follows:

$$\begin{aligned} \frac{\text{Fixed Expenses}}{(100\% - \% \text{ Variable Costs})} &= \frac{\$28,140}{(100\% - 32\%)} = \\ \frac{\$28,140}{68\%} &= \$41,400 \end{aligned}$$

If the break-even point is \$41,400 and average room rate is \$10.00, we must rent a total of 4,140 rooms or have a 38 percent occupancy rate to break-even. Furthermore, every dollar of room sales beyond the break-even point will yield a 68 percent profit.

Effect of a Wage Increase to Hourly Workers

Let's revise our present hourly wage rate from \$1.20 per hour to \$1.50. Fringe benefits will cost another 10 cents per hour so that the actual cost is \$1.60 per hour. If we assume that it takes a maid one-half hour to clean a room, variable room costs will increase from \$3.20 to \$3.40 (the 20-cent increase is one-half the 40-cent increased cost per hour).

If the average room rate of \$8.00 remains unchanged, the new variable expenses will be 42 1/2 percent (\$3.40 ÷ \$8.00).

The amount of additional room sales needed to just break-even on this wage increase:

$$\begin{aligned} \frac{\text{Fixed Expenses}}{(100\% - \% \text{ Variable Costs})} &= \frac{\$28,140}{(100\% - 42\frac{1}{2}\%)} = \\ \frac{\$28,140}{57\frac{1}{2}\%} &= \$48,900 \end{aligned}$$

The new break-even sales point of \$48,900 as compared with our previous break-even point of

\$46,900 indicates that we must obtain additional room sales revenue of \$2,000 for the year just to break-even on this 40¢/hour wage increase. This means that we must rent an additional 250 rooms ($\$2,000 \div \8.00 room rate) to cover this added ex-

pense.

Free coffee, newspapers, guest kits, and similar items will also result in an increase in variable expenses. The effect of such programs may be analyzed in this same manner.

ROOM RATE FORMULAS FOR TODAY'S MARKET⁵

Historically, managers adjust room rates haphazardly. Sometimes action is prompted by competition down the street. Most of us adjust room rates when we feel we are working more and keeping less!

We need to review what we are charging from a more scientific approach. A market study is one method, but it is usually costly and time-consuming. Instead, a simple mathematical equation can be used to study rate of adjustment. Of course, the law of diminishing returns must be taken into account when setting or adjusting rates. Too high a figure might severely cut into your profit or possibly eliminate it entirely!

Hubbart formula

The Hubbart Formula is a simple approach to the solution of a complex problem: How much profit can I make and still stay competitive? Here's the formula:

Where:

- X = Room Rate (average) to be charged
- O = Estimated annual total cost of operations
- I = Expected return on equity capital (your own actual investment)
- R = Estimated number of rooms to be sold

Now, let's figure the necessary charge per room for a 10 percent profit on investment for a 50-unit motor-inn with the following figures:

Investment in Building (Costs)	\$300,000
Investment in Land	40,000
TOTAL INVESTMENT	\$340,000
53% Equity in Building & Land	\$180,000
47% Borrowed Capital @ 6%	160,000
Furniture and Fixtures (Leased)	60,000
Room Rentals (annual)	135,000
Operating Expenses	60,000
Capital Expenses	58,000
	118,000
PROFIT BEFORE TAXES	\$ 17,000
Percent Return on Sales	12.6%

Applying the formula $X = \frac{O + I}{R}$:

$$\begin{aligned}
 X &= \frac{\$118,000 + 10\% \times (\$180,000)}{365 \text{ days} \times 50 \text{ rooms} \times 65\% \text{ expected occupancy}} \\
 X &= \frac{\$118,000 + \$18,000}{11,900} \\
 &= \frac{136,000}{11,900} = \$11.40
 \end{aligned}$$

The \$11.40 represents the daily charge that must be made for each occupied room for a 10 percent return on your own actual investment. If you want to make a 12 percent profit, adjust the formula, making sure to adjust the occupancy percentage as well as the desired return on equity capital. Raising rates above a rather narrow range will likely affect occupancy. Also, the amount to be paid on mortgage principal and for income taxes (if necessary) should be added to expenses when making these calculations.

Let's also assume that your double room rates are 50 percent more than your single rates. Thus, an \$8.00 single rents for \$12.00 as a double.

To find out what your average daily single and double rates should be, we will use another formula:

$$(Ns)Sr + (Nd)Dr = Ro \times X$$

Where:

- Ns = Number of Rooms sold singly
- Nd = Number of Rooms sold doubly
- Sr = Single average rate to be charged
- Dr = Double average rate to be charged
- Ro = Rooms occupied
- X = Average room rate

Remember that our Dr was 1.5 our Sr and average room rate was \$11.40. If we assume that 200 people rented 150 rooms during a given week, 200 guests ÷ 150 rooms equals 1.33 guests per room per day.

⁵From John Weber III, president, Avalon Motor Inn, Waukesha, Wisconsin.

With 150 rooms sold and occupied by 200 guests, assume we had sold 100 singles and 50 doubles. Our single rate should now be:

$$100 \text{ Sr} + 50 \text{ Dr} = 150 \times \$11.40$$

$$100 \text{ Sr} + 50 (1.5\text{Sr}) = \$1,710$$

$$100 \text{ Sr} + 75 \text{ Sr} = \$1,710$$

$$175 \text{ Sr} = \$1,710$$

$$\text{Sr} = \$9.77/\text{day and Dr} = 1.5 \times \$9.77 \\ \text{or } \$14.66/\text{day.}$$

Another important facet of the rate problem is keeping rates current. The primary reason for this concern is the advent of a scheduled increase in minimum wages. To counteract these anticipated labor cost increases, re-determine your position each year as minimum wage increases come into

effect. Then, re-compute your expenses and rates for the new year.

Setting Room Rates on an Annual Basis

Sometimes managers wish to rent rooms on an annual basis. This creates a problem concerning rate of charge. Several procedures are suggested: (1) Discount the regular rate for the room 15 percent, or (2) Compute the rate based upon actual fixed and variable costs for the room plus the pro-rated amortization of indebtedness plus normal profit, and (3) Obtain an agreement whereby the room may be rented like any other room if the contracting company does not utilize the room by a certain time. The company is then credited with 25 percent of the rate received.

CAPITAL BUDGETING

Capital expenditure planning is especially significant since it usually involves large sums of money and the investment has a useful life which often extends for many years. Thus, any errors in formulation of these plans could be disastrous.

Capital and operating expenditures are basically the same since both are incurred to create a business organization which produces goods and services desired by customers. The difference lies in time—we usually think of operating expenditures as those consumed in about 1 year and capital expenditures as those made for durable goods whose useful life extends beyond 1 year.

Owning vs. Leasing

To illustrate an application of capital budgeting, let's consider owning versus leasing new furnishings for a new dining facility which has been added to the hotel. We assume that the benefits to the hotel in increased patronage and profitability from the new dining room will be the same whether the furnishings are purchased or leased.

Owning

If the furnishings are purchased, the owner will deduct a charge for annual depreciation in arriving at estimated net income from the dining room. If he estimates the average useful life of the furnishings at 4 years, there would probably be a small salvage value when he disposes of the furnishings.

The rate of return (profit divided by cost) would be calculated as follows:

1. Estimate the average net income per year from the dining room for 4 years. Determine what percentage of the entire investment is represented by the furnishings. Subtract as an expense the annual charge for depreciation of the furnishings.
2. Estimate the salvage value of the furnishings.

Rate of return is calculated as shown in Equation 1, below. The denominator of Equation 1 includes the fraction since we are determining average purchase cost and the value of the furnishings will diminish constantly in the 4 years of its useful life. Thus, the mid-point (or value at the end of two years, plus the salvage value) is the average cost of the furnishings.

EQUATION 1 (OWNING)

$$\text{Rate of Return} = \frac{\text{Per annum operating income} - (\text{Annual charge for furnishings depreciation})}{\frac{1}{2} (\text{Initial purchase cost} + \text{salvage value})}$$

EQUATION 2 (LEASING)

$$\text{Rate of Return} = \frac{\text{Per annum operating income} - (\text{Lease payment} - \text{allowance for interest})}{\frac{1}{2} (\text{Initial purchase cost} + \text{salvage value})}$$

Leasing

As a lessee, you would deduct the annual lease payment as a business expense. From this lease expense however, you should deduct an "interest charge"—equal to the average interest you would pay per year, if you had borrowed the money from your bank at your normal borrowing rate. Rate of return is calculated as shown in Equation 2, bottom of page 14.

Illustration 1 — owning vs. leasing

On the basis of these calculations, ownership would bring a higher rate of return on the investment than leasing. (This illustration is not intended to indicate actual situations.)

Furnishings as a percentage of total dining room investment: 10%

Purchase cost of furnishings: \$10,000

Life of furnishings: 4 years

Term of lease: 4 years

Annual operating income generated (prorated) by furnishings: \$12,000

Average annual depreciation: \$2,125

Average investment (1/2 of \$10,000): \$5,000

Salvage value: \$1,500

Annual lease payment: \$2,750

Financing value (interest) of lease @ 7% on \$5,000 average investment: \$350

Owning Calculations

$$\text{Rate of Return} = \frac{\$12,000 - \$2,125}{\frac{1}{2} (\$10,000 + \$1,500)}$$

$$\text{Rate of Return} = \frac{\$9,875}{\$5,750} = 171.7\% \text{ (before taxes)}$$

Leasing Calculations

$$\text{Rate of Return} = \frac{\$12,000 - (\$2,750 - \$350)}{\frac{1}{2} (\$10,000 + \$1,500)}$$

$$\text{Rate of Return} = \frac{\$9,600}{\$5,750} = 167.0\% \text{ (before taxes)}$$

Present Value or Time Value

Money has an "opportunity cost" meaning that a dollar on hand today can be put to work immediately earning more money or interest. If that

dollar were received a year from now, the earnings that could have been made from it are lost. Thus, the present value of \$1.00 received a year from now, discounted at 8 percent is \$0.926⁶ (Table 1). Compounded annually, a dollar invested today is worth more in 2 years than it is in 1 year. Conversely, the present value of a dollar 2 years from now would be less than a dollar received 1 year from now. Therefore, we can't just compare dollars, now and in the future, because future dollars are worth less and must be discounted (Fig. 5).

PRESENT VALUE OF \$1 RECEIVED AT END OF YEAR, AT 8 PERCENT INTEREST

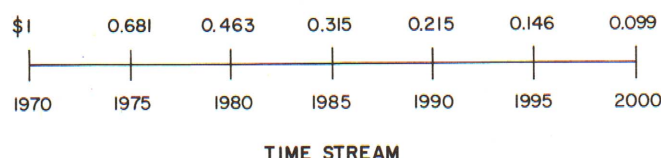


Figure 5 — Dollars to be received in the future, such as rental income during the useful life of the lodge, must be discounted in order to make a true comparison with the cost of the lodge, which must be paid upon acquisition. For example, a rental dollar to be received in December, 1985, has a present value of 31½ cents.

Calculating the Profitability Index

An investment proposal can be evaluated through use of a profitability index—the relationship between the present value of the net cash benefits to be received and the present value of the outlays or costs. For example, suppose you are considering the addition of 10 rooms. Assume the cost of capital to be 8 percent and the time stream (length of useful life) or annual cash benefits to be 15 years. The remaining figures for the new addition are:

Investment \$7,000/room	\$ 70,000
Mortgage	\$ 20,000
Owner's Equity	\$ 50,000
Increased Sales \$20,000/year for 15 years	\$300,000
Expenses:	<u>\$169,000</u>
Controllable: \$79,000	
Fixed: \$90,000	
Profit	\$131,000
Less Income tax: \$39,300 (30%) . .	\$ 91,700
Add back depreciation: \$70,000 . .	\$161,700
Cash flow: \$161,700	

⁶Source: Anthony, R. N., *Management Accounting*, Homewood, Illinois; Richard D. Irwin, Inc., 1960.

Present value from the investment is computed by dividing cash flow by time stream (years) and multiplying this by the discount factor given in Table 1. Thus, $\$161,700 \div 15 \text{ years} = \$10,780$.

Referring to Table 1, follow the 15 year line to the 8 percent column to arrive at the 8.559 discount factor. Present value equals $8.559 \times \$10,780$, or $\$92,270$.

The profitability index can then be calculated by dividing the present value of net cash benefits by the present value of cash outlay required. Thus, the profitability index for the 10 new rooms would be $\$92,270 \div \$70,000$, or 1.32.

This means that for every dollar invested in the new rooms, the estimated profitability, in terms of the present value of the stream of benefits, would be \$1.32.

Rate of Return

Another method for evaluating proposals for capital expenditures is rate of return. Management needs to know what the annual rate of return will likely be from any investment. Rate of return can be thought of as an interest rate corresponding to the income which the investment will yield in addition to the original cost of the investment.

After this rate of return has been estimated, cost of capital is calculated. If rate of return is lower

than the cost of funds, there is something wrong with the investment.

Let's use an example to calculate rate of return. What would the rate of return be for a \$3,000 piece of equipment that would save \$800 per year for 5 years?

The stream of benefits would total \$4,000, ($\$800 \times 5 \text{ years}$). Benefits should exceed the investment, otherwise the decision would be questionable. To compute the rate of return, divide the investment by annual benefit or return. Then, referring to Table 1, use the 5-year line to find the number which most closely approximates the benefit which you will receive. Thus, $\$3,000 \div \$800 = 3.75$ present value. This means that the equipment investment should result in a rate of return slightly over 10 percent, but well under 12 percent.

We can find a more precise rate of return by interpolation (estimate of a value between two known values).

First, we must understand that we should be investing \$3,033 ($3.791 \times \800) to receive the 10 percent rate of return. Likewise, we would invest \$2,884 ($3.605 \times \800) for a 12 percent rate of return. Since we are investing only \$3,000, we must use interpolation to find a more precise interest rate.

Rate	Present Value	Difference in Computed Present Value and Investment Required
10%	\$3,033	\$3,033
12%	2,884	3,000
2%*	\$ 149	\$ 33

* Difference between two rates of return.

Thus, $\$33 \times 2\% = 0.4\%$ and $10\% + 0.4\%$
 $\$149 = 10.4\%$ rate of return

Any actual figures of an investment possibility can be substituted and the rate of return calculated. Comparisons of investment alternatives can then be made.

Uncertainties

Estimating returns on investments involves uncertainties. No one can foresee future prices, costs, or sales volumes, but one way to approach this problem is to calculate optimistic and pessimistic rates of return. In this way, you can establish a reasonable range of return, such as, between 8 and 12 percent.

One other possibility should be mentioned — the proposed investment might not produce any benefits at all. Therefore, managerial judgement is required to decide whether a likely yield of 10 percent is high enough for the risks involved.

TABLE 1 * — Value of \$1, payable annually, today. (Discounted at each of the following rates of interest).

Years N	4%	6%	8%	10%	12%
1	0.962	0.943	0.926	0.909	0.893
2	1.886	1.833	1.783	1.736	1.690
3	2.775	2.673	2.577	2.487	2.402
4	3.630	3.465	3.312	3.170	3.037
5	4.452	4.212	3.993	3.791	3.605
6	5.242	4.917	4.623	4.355	4.111
7	6.002	5.582	5.206	4.868	4.564
8	6.733	6.210	5.747	5.335	4.968
9	7.435	6.802	6.247	5.759	5.328
10	8.111	7.360	6.710	6.145	5.650
11	8.760	7.887	7.139	6.495	5.988
12	9.385	8.384	7.536	6.814	6.194
13	9.986	8.853	7.904	7.103	6.424
14	10.563	9.295	8.244	7.367	6.628
15	11.118	9.712	8.559	7.606	6.811

*Source: Anthony, R. N., *Management Accounting*, Homewood, Illinois; Richard D. Irwin, Inc., 1960.

MANAGING LONG-LIVED ASSETS

Because such a large percentage of the total investment in a lodging business consists of fixed assets, managing and safeguarding these assets becomes an important part of the manager's responsibilities.

Maintenance

The first consideration is maintenance. Proper functioning of fixed assets is imperative for successful operation. Timely preventative maintenance repairs and upkeep of property are important. Economy in lengthening useful life plus better functioning and appearance are benefits from such a policy.

Capacity Use

Using fixed assets at their full capacity is also desirable. When the capacity or output of the asset is known, then using the asset at its fullest capacity is most efficient and productive.

Cost of Fixed Assets

To work with fixed asset figures, the full cost of such assets must be known. The following elements apply:

1. Cost of capital investment
 - The net investment
 - Equipment or tools needed to maintain investment
2. Cost of space occupied by investment
 - Maintenance costs
 - Taxes
 - Depreciation costs
 - Heating
 - Rental space
 - Utilities
3. Servicing costs of equipment or other investment
 - Property taxes
 - Insurance
 - Maintenance & repairs
 - Depreciation
4. Ownership risk costs
 - Obsolescence
 - Style or efficiency changes

Depreciation

An investment in fixed assets implies that prices on rates charged to the customer will include a sufficient amount to "recapture" the original fixed asset investment over its time span—its useful life. The annual recapture of such costs is called depreciation.

Since depreciation is deductible for income tax purposes, determination of the method to be used affects the net profit shown and the amount of tax to be paid. Several excellent references are recommended for choosing the most appropriate method.^{7,8}

One of the primary purposes of good accounting is to safeguard assets. Use of the funds represented by depreciation is a financial decision of major importance. There are several alternatives:

Depreciation Methods

1. An amount equal to the annual depreciation can be deposited in a special bank account. The purpose of such a reserve would be to provide the funds for replacements, modernization, upgrading, or enlargement of fixed assets. An example is modernization of an older hotel—installation of air-conditioning, better parking facilities, and a swimming pool. One of the problems associated with this alternative is the inflationary increase in building and remodeling costs. The compounding of interest on this fund should just about offset the annual increase in the cost of replacement.
2. The amount can be used as payment on the principal of the mortgage or other long or short-term debts. An example would be a new business which has heavy debt commitments in its early years. An accelerated method of charging for depreciation expense might be advantageous (depending on the amount of profit, if any, made). This lowers the amount of net profit against which the income tax is charged and makes funds available for debt payments.

A warning is needed here, however. If no

⁷Tax Guide for Small Business. Published annually by the Internal Revenue Service, U. S. Dept. of the Treasury, available from Internal Revenue Offices.

⁸Merriam, Kemper W., *The Motel Tax Trap*, Temple, Texas; Tourist Court Journal, 1967.

funds are set aside for eventual modernization and replacement of the fixed assets (as intended by income tax laws) then in effect, the capital asset is being currently consumed. Prudent financial management dictates that if funds are used to retire debts, that this practice be strictly limited to emergency-type financing and discontinued as soon as practical.

3. The amount can be invested in interest-bearing securities which can be cashed-in in the

future to provide funds for modernization or replacement.

4. Funds can be used as equity-working capital to build additions or purchase furnishings or equipment. However, the same warnings apply since no funds would be available when modernization or replacement is necessary.

Whatever your policy may be, a capable legal or tax advisor should be consulted before making the final decision.

GLOSSARY OF ACCOUNTING LANGUAGE

Accounting — Reporting, recording, analyzing and interpreting the financial transactions of a business enterprise.

Accounting Period — Any time unit decided upon by management. A fiscal year is a 12 month accounting period.

Accounts Receivable — Amounts due the business from guests, customers, credit card agencies and similar sources.

Acid Test or "Quick Ratio" — An approximate measure of the ability of a business to meet its current obligations. Thus, only immediately "liquid" assets of cash, accounts and notes receivable and marketable securities would be used.

Amortization of Intangibles — Annual charge for improvements made to leased assets.

Asset — The cost of goods or services which have been acquired. They may be utilized in either the present or in the future.

Average Rate per Rented Room — Total room revenues divided by number of rooms rented during accounting period.

Balance Sheet — Summary of the organization's assets, liabilities, and owner's equities as of a particular date.

Bonds — Written obligations to repay a given sum of money on a specific date with interest at a fixed rate.

Bookkeeping — The process of collecting, classifying, and recording money transactions. It is a part of the accounting function.

Break-Even — A point in the accounting period when total accumulated revenues are equal to total variable expenses to that particular date, plus fixed expenses for the year.

Capital Budgeting — Planning capital expenditures for the most favorable long-range returns.

Cash Flow — Profit (net profit) after federal, state, and local income taxes, plus added back depreciation; the amount of cash actually available to management during an accounting period—for debt reduction or other non-operating usage.

Additional cash flow could be obtained from borrowing or by issuing securities. These are external sources of cash and are not used in com-

paring investment alternatives. Similarly, sale of fixed assets increase cash flow but are usually not a part of cash flow projection.

Classification of Accounts — Grouping account titles under standard headings and definitions, to make possible meaningful comparisons among lodging establishments.

Control — Function of management concerned with arrangement of operations and the reporting system to be employed for the protection of owners. Involves enforcement of corrections needed to achieve goals and promote efficiency.

Current Ratio — Approximate measure of the ability of the business to meet current liabilities. Computed by dividing current assets by current liabilities.

Debt to Net Worth — Comparison of dollars invested in the business by creditors (shown as short and long-term debt), with dollars invested by owners. Computed by dividing *total debt* by *tangible net worth* (Net worth items such as goodwill, organizational or development expenses are deducted.)

Depreciation — Costs represented by fixed assets, the original cost of which is partly recaptured, currently. Can also be thought of as lost usefulness or expired utility.

Expenditure — Transaction involving present or future payment of cash or other property for goods or services.

Expense — Cost of goods or services which have already been used up or consumed during the current accounting period.

Fixed Expenses — Expenses which do not change as business volume changes, such as real estate taxes, interest on mortgage, depreciation, insurance, manager's salary and similar items.

Funds — Net working capital, figured by subtracting current liabilities from current assets; synonymous with "cash."

Goodwill — Above normal earning power of a business. An amount paid for a successful business that exceeds the fair value of the tangible assets purchased.

Income Statement — Summary of revenue and expense transactions occurring during the reporting period.

Leverage — Earning a higher return on investments as

residual owners of common stock in a corporation than would be paid as a fixed return to holders of preferred stock.

Liquidity — Convertibility of assets to cash.

Long-lived Assets (fixed) — Real and personal property which provide needed facilities and services. These costs (except land) are gradually charged as operating expenses over their useful lives through depreciation or amortization.

Long-term Liabilities — Creditor equities which help make possible purchase of fixed assets. Such liabilities must be ultimately liquidated through cash funds created by operations.

Loss — A reverse of the conditions required for a net profit.

Net Cash Benefits — Present value of the total cash flow which is obtained through operations during the useful life of the business investment.

Owner's Equity (net worth) — Total investments made in the business plus profits earned through operations which have remained in the business (retained earnings).

Present Value — Comparison of dollars to be received in the future with dollars at hand today using various discount percentages; Important when comparing today's costs of providing business assets with profits to be received in a future time stream.

Profit — Whenever revenues exceed expenses during a given accounting period, a profit has been made.

Profitability Index — Fraction, ratio, or index number which compares the present value of cash outlay with the present value of total estimated future net cash benefits. Computed by dividing present value of net cash benefits by present value of the cash outlay. In comparing various investment alternatives, the higher the profitability index, the better the investment.

Revenue — In-flow of assets from transactions involving the provision of services to guests, or the sale of goods to customers.

Semi-variable Expenses — Expenses which are partly fixed and partly variable (electricity). Part of the electricity expense, such as outside lighting, must be incurred regardless of the volume of business, while other uses (guest-room lamps and TV) will vary directly with room occupancy or activity; must be allocated — part to fixed expense, and the remainder to variable expenses.

Stocks — Shares of ownership in a corporation — common or preferred. Preferred owners receive dividends first and common owners last.

Variable Expenses — Expenses incurred in the production of revenues which are directly related to volume of sales. Laundry is a good example.

Stream of Benefits — Net profits estimated over the total future useful life of the investment.

Working Capital — Excess of current assets over current liabilities.

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