THE USE OF THE ACCOUNTING INFORMATION IN DECISION MAKING IN THE HOSPITALITY BUSINESS[i]

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Abstract:
Accounting information, especially managerial accounting information was prepared, used, analyzed and provided in books and articles mostly for manufacturing companies and not for other types of businesses. In addition, most accounting researchers interested in service production have conducted their research in non profit, public sector organizations (Olson et al., 1998). Very little is yet known about management accounting in tourism enterprises and especially in hotels (Pellinen, 2003). So that we think that it will be interesting to analyze how managerial accounting information is used in decision making in hospitality business.
In our paper we have presented how information about costs influences the quality of the process of decision making.

Key words: *managerial accounting, information, cost, contribution, decision*

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1. Introduction

The organizations are open systems and they function within a larger environmental system with which they interact. From this perspective we can identify three steps in the actions of an organization such as: the import from environment, the transformation of inputs into outputs and the release of outputs to environment. In relation with these three stages, two concepts are used: efficient and effective. *Efficient* means minimizing waste in transforming inputs into outputs and in delivering them to customers and *effective* means delivering output to customers that need, want, can afford and will purchase them at a price high enough to ensure the organization's target profit.

Effectiveness is the function of success – efficiency is a minimum condition for survival after the success has been achieved. Efficiency is concerned with doing things right. Effectiveness is doing the right things (Drucker, 1973).

Efficiency and effectiveness are two key factors to ensure the interactions among people and organizational resources and their continuous improvement to serve the needs of customers. That means for managers to effectively and efficiently manage for total quality. *Total quality management* (TQM) may be considered as a process of managing the total organization to deliver quality to customers. TQM is a new philosophy of running a business, the only way of surviving in the competitive battle, an assembly of techniques and methods used through which the maximization of the competitiveness of an entity is followed up, by the continuous improvement of the quality of products and services (DEX, 1998). TQM involves everyone in the organization – managers and workers – in a totally integrated effort towards improving performance at every level. TQM is a philosophy of getting it right first time, as it is recognized that the costs of bad quality may exceed the costs of good quality (Glăvan et al., 2009).

TQM includes three words (total, quality and management) summarized into a concept. The TQM suggests us to analyze the entire organization. A part of the organization that provides information about how resources were obtained and used with efficiency and effectiveness is the accounting department. So that the research team tried to reveal in this paper how accounting information helps managers to manage to deliver quality to customers. We chose to prove this for hospitality business where operations are generally identified as having a number of different cyclical sales, cycles such as daily operating cycle, weekly cycle, seasonal cycle and general business cycle.

These various repetitive accounting cycles determine difficulties in forecasting sales revenue and operating costs. Regarding operating cost we think that it is difficult to classify costs in direct and indirect as for manufacturing companies. Another difficulty is to identify variable and fixed costs. Difficulties in our opinion are due to cost object. The hospitality business cost object may be a department or a decision. The profit will be calculated for each department or division and not by type of merchandise or service.

2. Literature review

Previous studies on hospitality business cover the whole field of cost and management accounting.

Thus, there are studies on strategic management accounting (Collier and Gregory, 1995), the structure of cost accounting system (Brignall et al., 1991; Brignall, 1997), the general and relative importance of the knowledge in accounting techniques in hotel management (Damitio and Schmidgall, 1990), the use of management accounting information in decision making (Downie, 1997), the activity-based modelling of customer profitability analysis (None and Griffin, 1997; 1999), the roles of and participation on controllers in hotel management (Burgess, 1996; Gipson, 1998, 2002; Subramaniam et al., 2002), the links between managerial accounting and corporate management (Mongiello and Harris, 2006), the pricing practices and their relationship to cost accounting (Pellinen, 2003), the acceptance and usage of Uniform Systems of Accounts for the lodging Industry (Kwansa and Schmidgall, 1999), the budgeting and budgetary control practices (Schmidgall et al., 1996; Schmidgall and Ninemeier, 1987; Jones, 1998; DeFranco, 1997; Pickup, 1985) and the use of financial and non-financial measures for performance evaluation (Mia and Patier, 2001; Brander Brown and Mc Donnell, 1995; Atkinson and Brander Brown, 2001; Harris and Mongiello, 2001; Schmidgall, 1988). The conclusions of these studies are summarized as follows.

Almost all the hotels use traditional budgets for planning annual operations, for controlling cost and for coordinating activities of the various parts of the hotels. About half of the companies use zero budgets, while few companies develop flexible budgets (Jones, 1998; De Franco, 1997; Schmidgall et al., 1996; Pavlatos and Paggios, 2007). Very few hotels develop budgets for strategic plans (Schmidgall et al., 1996; Pavlatos and Paggios, 2007).

The majority of hotels use traditional profitability measures for performance evaluation (Mia and Patier, 2001; Atkinson and Brown, 2001; Haktanir and Harris, 2005; Pavlatos and Paggios, 2007). The adoption of traditional non financial measures (related to customers, to innovation, to employees) is considered satisfactory (Pavlatos and Paggios, 2007).

Traditional absorption costing is the most famous cost accounting technique followed by variable costing, which use is statistically significant related to the use of cost-volume-profit (CVP) analysis that has been adopted by less than half of the hotels. Hotels use standards cost accounting less frequently than other cost accounting techniques (Brignall, 1997). Activity based costing diffusion in hospitality industry is increasing (Tai, 2000; Cohen et al., 2005).

Strategic management accounting tools have a smaller adoption rate from the other cost accounting techniques (Collier and Gregory, 1995).

Many hotels intend to place greater emphasis on newer techniques in the future, particularly in activity based costing techniques (ABC, ABB and ABM), balanced scorecard, benchmarking and target costing. On the contrary, traditional management accounting tools, such as absorption costing and standard costing are to be given limited emphasis in the future (Pavlatos and Paggios, 2007).

3. Accounting information in hospitality business analysis

In recent years, the increasing level of global competition has intensified the challenges for managers and many experts have warned that if management accounting is to maintain its relevance it needs to adapt to meet the changing needs of managers.

In hospitality business, managers need to know how financial transactions affect performance and financial position and how to provide financial information for external users. Also managers have to know how resources were used, how human resources were motivated to carry out a selected course of action. In this case managers must have at their disposal internal information provided by managerial accounting. In our opinion, a hospitality managerial accounting must be organized to provide information for planning alternative short or long term courses of action and to decide the best course of action to be implemented. Without management's understanding of the information being provided, management's effectiveness will be greatly reduced (Jagels & Ralston, 2007). We think that for the Romanian hospitality business it is necessary the organization of a managerial accounting system to analyze the performance of each department and to decide how to increase the profit and the quality of all services. To attain this target three types of information are necessary: information about costs; information about prices and information about contribution and profit policy.

To analyze costs, two options are available:

- to classify costs in direct and indirect;
- to classify costs in variable and fixed.

Costs are always analyzed in relation with departments or divisions such as: rooms, food, beverage, gift shop service and banquet.

Direct costs are directly traceable to a department or a division and typical examples are: cost of good sold, salaries and wages, specific supplies and services such as linen and laundry. Indirect costs are not directly traceable to a department or a division and for this reason are calculated separately. Indirect costs may be apportioned between departments and divisions to calculate the total cost for each area or total indirect costs are covered by a contribution generated by departments or divisions.

Variable costs are those costs that change in direct proportion to a change in sales revenue. Typical examples are costs of sales of food and beverages. Fixed costs are those costs that are not expected to change if the sales revenue changes. Fixed costs may be: management salaries, rent, insurance expenses, depreciation expenses etc.

Based on this classification of costs, contributions may be calculated as a difference between sales revenue and direct cost or variable cost. Operating profit will be calculated by excluding fixed cost or indirect cost from total contribution.

Based on the following available information, we try to explain the importance of accounting information for managers.

Example 1

A restaurant complex consists of three departments and the following information is available for a period:

	Dining room	Coffee shop	Lounge	Total

Sales revenue	48,700	33,950	38,200	120,850
Direct costs	38,600	32,000	31,150	101,750
Indirect costs				13,000

Indirect costs may be calculated to each department based on sales revenues.

- Calculate contributions and profit;
- Calculate total cost and profits.

Solution

- Contributions and profit

		Dining room	Coffee shop	Lounge	Total
1.	Sales revenue	48,700	33,950	38,200	120,850
2.	Direct costs	38,600	32,000	31,150	101,750
3.	Contribution (1-2)	10,100	1,950	7,050	19,100
4.	Indirect costs				13,000
5.	Operating profit (3-4)				6,100
6.	Contribution ratio (3/1*100)	20.7%	5.74%	18.4%	15.8%
7.	Profit ratio (5/1*100)				5%

- Total cost and profits

Total cost/department = Direct cost + Allocated indirect cost
Allocated indirect cost/department (AIC) = Allocated rate * Allocation base
Allocated rate (AR) = Total indirect costs/Total allocation base
AR = 13,000/120,850 = 0.1075
AIC/DR = 0.1075 * 48,700 = 5,240
AIC/CS = 0.1075 * 33,950 = 3,650
AIC/L = 0.1075 * 38,200 = <u>4,110</u>
13,000

Total cost and profit calculation

		Dining room	Coffee shop	Lounge	Total
1.	Sales revenue	48,700	33,950	38,200	120,850
2.	Direct costs	38,600	32,000	31,150	101,750
3.	AIC	5,240	3,650	4,110	13,000
4.	Total cost (2+3)	43,840	35,650	35,260	114,750
5.	Operating profit/loss (1-4)	4,860	(1,700)	2,970	6,100
6.	Profit/loss ratio	10%	5%	7.7%	5%

Conclusions Example 1

- Each department generates a positive contribution.
- Contribution ratio varies between 5.74 % and 20.7%. Based on this variation we may say that coffee shop department will be a deficitary department.
- After the calculation of total cost for each department we can see that in CS department was obtained a loss.
- It's not necessary to calculate the total for each department and the profits, but it is enough to reveal contributions generated by each department. The contribution is important information for managers to appreciate the profitability of a department and also the quality of services provided.
- Total cost is influenced by the nature of the base used to allocate indirect costs. Consequently, the profit by department will be influenced. So that, the solution will be to calculate only contributions for each department and the total profit.
- To eliminate the CS loss, the solution will be to reduce the cost.

Another option is to use cost behavior as a criteria for cost classification. In this case, a lot of indicators may be calculated to analyze the activity and to choose the best solution for the company. In this case, a contribution margin is calculated by eliminating variable cost (cost of sales) from sale revenue. Operating profit will be contribution margin less fixed costs.

For planning and decision making, managers must know that sales revenue (SR) is composed by two elements: variable cost (VC) and contribution margin (CM) and CM contains also two elements: fixed costs (FC) and profit (P). All companies determine some key elements for the future such as a profit target, a contribution margin target and a sales revenue target. To attain those targets, mangers must control all variable and fixed costs in order to reduce their level.

Example 2

We want to explain the importance of these indicators for decision making using information regarding a hotel as follows:

- room sales revenue 1,890,000
- variable cost of sales 756,000
- fixed costs 934,000
- rooms 50
- average room rate 150

Requirements:

- contribution margin and profit calculation
- cost-volume-profit analysis

Solution

- Contribution margin and profits

- Room sales revenue = 1,890,000
- Variable cost of sales = 756,000
- Contribution margin (1-2) = 1,134,000
- Fixed costs = 934,000
- Operating profit (3-4) = 200,000
- Contribution ratio (3/1 *100) = 60%
- Other ratios:

- Occupancy Rate (O.R.) = number of rooms occupied for the year/ (nr of rooms * 365)
Number of rooms occupied in the year (N.R.O.) = sales revenue/ average room rate = 1,890,000/150 = 12,600

O.R. = 12,600/(50 * 365) = 0.69 =69%

- Average Occupancy (A.O.) = OR *Nr of rooms = 69% *50 = 34.5 units per night
- Variable cost per rooms occupied (VCO) = VC/NRO = 756,000/12,600 = 60 mu.
- Variable cost as a % of room sales revenue = VC/RSR = 756,000/1,890,000 = 40%

CVP Analysis

CVP method can assist management in evaluating current and future events regarding sales revenue inflows and cost outflows (Jagels & C.E. Ralston, 2007). For these reasons, a lot of indicators must be calculated such as: breakeven level, required sales revenue, new investments, etc.

Breakeven level means sales revenue level or number of units necessary to cover all costs and to produce zero profit.

Sales revenue at breakeven (SRBE) = FC/CR

SRBE = 934,000/60% = 1,557,000

Number of units (rooms) at breakeven = FC/CMu

NruBE = 934,000/(1,134,000/12,600) = 934,000/90 = 10,378 units

SRBE = NruBE * Average room rate

SRBE = 10,378 * 150 = 1,555,500

Required sales (RS) is an extension of breakeven analysis if there are changes in the level of prices or/and costs.

RS = (FC+ TP+ CFC)/(CR or CMu), where: TP – target profit, CFC – changes in FC, CMu – unit contribution margin.

If the hotel desires a target profit of 300,000 mu, sales revenue will be:

RS = (934,000+300,000)/60% = 1,234,000/60% = 2,057,000m.u.

What does this mean for our hotel? An increase in the number of rooms as follows:

Increase in the sales revenue = 2,057,000- 1,890,000 = 167,000

Additional rooms = 167,000/150 = 1,113 rooms per year

If managers forecast a change in the average room rate and in the same time an increase in variable cost and to keep up the same profit, the required sales revenue have to be calculated.

Supposing the following:

- a decrease of 10% in the selling price
- a decrease of 5% in the variable cost
- target profit 200,000 mu.
- fixed cost decrease of 24,000 mu.

A new profit and loss account must be prepared.

Profit & Loss Account

			Ratios
1.	Room sales revenue	1,701,000 (1,890,000 – 189,000)	100%
2.	Variable cost of sales	718,200 (756,000*0.95)	42%
3.	Contribution margin (1-2)	982,800	58%
4.	Fixed costs	910,000 (934,000 – 24,000)	53.5%
5.	Operating profit (3-4)	72,800	4.3%

RS = (910,000+200,000)/58% = 1,110,000/58% = 1,914,000 mu.
RS (units) = 1,110,000/(135-57) = 1,110,000/78 = 14,230 u.
OR = 14,230/(50 * 365) = 14,230/18,250 = 78%.

Conclusions Example 2

- To compensate a decrease of 10% in average room rate occupancy rate will increase from 69% to 78% (9%) and that means to sell more rooms per night approximately 5 rooms (9% * 50).
- If managers want to prepare scripts for the future, it is necessary first of all to analyze where prices are determined. After that it's possible to change selling prices and the level of costs.
- Variable cost and contribution margin are considered as relevant costs and are used by managers in decision making.
- The best solution of a company is when customers are satisfied, that meaning the lowest price for the best quality of services. To give the customer the smallest price, this must be a consequence of a reduction of the total cost.

4. Conclusions

Accounting system and especially managerial accounting provide useful information for decision making. Information is the product of accounting and that means that the quality of accounting information influences the quality of decisional process that will influence the customers' satisfaction.

The development of accounting information to support marketing decisions making in hotels offers opportunities to improve the quality of decisions made. The capacity of the technology available is capable of producing information not previously possible. What is now required is the development of knowledge in order to maximise the resources available to hotel managers. The focus of this paper is thus the application of knowledge to develop appropriate accounting information for managers in hotels making marketing decisions.

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