MANAGEMENT ACCOUNTING IN PORTUGUESE HOTEL ENTERPRISES: THE INFLUENCE OF ORGANIZATIONAL AND CULTURAL FACTORS

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ABSTRACT

Management accounting has evolved in order to respond to the increasing challenges imposed by the hotel and lodging industry This study as the objective of characterizing management accounting in the Portuguese lodging industry, particularly in hotels, identifying the techniques adopted, the deepness of their use, and understand the extent to which the industry adopts and use the Uniform System of Accounts for the Lodging Industry (USALI). It is also objective of the study to identify organizational structure and culture factors that influence management accounting, applying the contingency theory.

INTRODUCTION

Management accounting techniques have evolved in order to respond to the complexity of the organizations environment. Nevertheless, the traditional techniques have been the ones with vastest use and adoption, with the contemporary techniques being adopted at a slower rate (Adler et al., 2000; Jones, 2008; Slessor, 2010).

This study as the objective of characterizing management accounting in the Portuguese lodging industry, particularly in hotels, identifying the techniques adopted, the deepness of their use, the degree of satisfaction of management with these techniques and their adequacy for the decision-making process, understand the extent to which the industry adopts and use the Uniform System of Accounts for the Lodging Industry (USALI). It is also objective of this work identify the factors that influence management accounting. We are going to use the contingency theory to support this study. We focused our study on the organizational structure and culture factors.

The present research project as selected as object of the study hotels in Portugal. The sample includes 35 hotels, which were analyzed in the years 2009 and 2010, equally distributed in the sub categories of hotels, apartment-hotels and hostels.

LITERATURE

According to Pavlatos and Paggios (2009), there is a growing desire to understand the practice of management accounting in hotels, because the management accounting techniques have an important role in their decision making process (Oliveira et al., 2008). The organizations make decisions based on information provided. It is important the use of management accounting information to allow the optimization of the decision making processes by hotel managers, due to the fact of them facing a big competition (Downie, 1997).

As a consequence of several specificities of the hotels, the information required by managers to make decisions is different from other industries. Hotel units face direct and indirect competition (Mia and Patiar, 2001). Hotels have two sources of information: market research and accounting information. The ideal is that this information could be aligned and coordinated thus supporting the managers (Downie, 1997).

Kaplan and Cooper (1998) have developed the design of systems costs and performance measures model, which describes the four stages that a company has to go since the traditional costing to the activity-based costing. The stage I is characterized by the existence of an inadequate system for preparing financial reports. In stage II, it is possible to prepare financial reports, distorted cost product reports and to accumulate costs by responsibility centers, but not by activity, processes and customers. In stage III, there is a traditional financial system working fine, and this system elaborates the financial accounting and prepares reports for short periods of time where it is showed the cost of sales and stock valuation. The activity-based costing is used to remove information from financial documents and allocate it to products, services, customers and processes. In stage IV, there is integrated, providing information to prepare financial documents. The activity-based costing systems and operational feedback are integrated, providing information to prepare financial documents. The activity-based costing becomes the basis for the company's budget. So the activity-based budget is used to make comparisons with the real information of the year.

The management accounting techniques, according Ferreira (2002) may be divided into traditional and contemporary (Table 1).

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Traditional techniques	Contemporary techniques
Budgeting;	 Activity-based budget;
• Budget deviation analysis;	 Activity-based costing;
• Product costing;	• Balanced Scorecard;
• Product profitability;	 Benchmarking;
• Return on investment;	• Customer profitability analysis;
• Sales break-even;	• Economic Value Added;
• Strategic Planning;	 Product life cycle costing;
• Tableau de bord.	• Target costing;
	: (2002)

Table 1: Traditional versus contemporary management accounting techniques

Source: adapted from Ferreira (2002).

The Greek hotels use more traditional management accounting techniques than contemporary management accounting techniques (Pavlatos and Paggios, 2008) as well as the hotels of the western region of Portugal (Santos et al., 2010). Jones (2008), Phillips (1996), Pavalatos and Paggios (2008) and Uyar and Bilgins (2011) refer that *Budgeting* and *Budget deviation analysis* are the management accounting techniques more used in the lodging industry. Vaugh et al. (2010) refer that activity-based costing was implemented with success in a kitchen in a Las Vegas casino, which allowed understand a hotel's cost structure.

The organizations give more importance to traditional management accounting techniques than to contemporary management accounting techniques. According to Fowler (2010), it doesn't mean that the contemporary techniques are irrelevant, because in several cases they are not adopted due their high costs of implementation.

USALI as a framework is also gaining support particularly among multinational hotel chains. However, Faria (2007) presents that less than a half of hotels use the USALI. Pavalatos and Paggios (2007) found few national hotels utilizing de USALI in Greece.

In the literature there may be found several studies that refer the determinants that make one company adopt for some management accounting techniques, supported by the theory of contingency. The contingency theory is base on the premise that the management accounting techniques are not used equally by all organizations (Haldma and Laats, 2002). These techniques depend upon the specific characteristics of an organization, like as organizational context and structure. The contingency theory helps to explain the impact of factors in management accounting. Several authors use this theory when examined divers factors (Haldma and Laats, 2002). According to Hayes (1977), there are three subgroups factors that influence the organization management, such as internal factors, interdependency factors and environment factors. Haldma and Laats (2002) subdivided into two general groups: external and internal factors. The internal factors are organizational aspects, technology and strategy. The fact of company being in a highly competitive market (Tayles and Walley, 1997), organizational variables such as communication, coordination, decentralization and formalization (Elmore, 1990; Luft and Shields, 2003) and business strategy and market

orientation (Cadez and Guilding, 2008) influence management accounting techniques adopted by companies worldwide.

According to Tamina and Bates (2010) the organizational structure can be mechanistic or organic. The mechanistic organization is related to a stable environment and an organic organization is related to an unstable environment. This can influence the usage rates of management accounting techniques. Uyar and Bilgin (2011) refer that the differences in management accounting were attributable to hotels sizes, complexity of operations, uncertainties, coordination and communication among departments.

Schmidgall et al. (1996) analyzed if culture influence the use of management accounting techniques but they didn't arrive an affirmative answer for the Budgets, but they verified this for Strategic planning. A majority of hotel chains in both the USA and Scandinavia use budgets and budget variance analyze. The budgets are elaborated by a bottom up approach. However, USA hotels prepared budgets for five or more years but Scandinavia not. The USA hotels have a tighter control over food costs and beverages costs, while Scandinavia has got a tighter control over other costs. According to Libby and Waterhouse (1996), Gosselin (1997), Granlund and Lukka (1998), Anderson e Young (1999), Chenhall (2003) and Baird et al. (2004), the organization culture influences the management accounting practices.

Hypotheses

According to the literature, we found that the traditional management accounting techniques have a higher utilization compared to contemporary management accounting techniques. The USALI has a little use in the hotels of Greece. So, we can say that the most companies is in the stage II of the design of systems costs and performance measures model, since the companies that are in the stage III already use contemporary management accounting techniques. The main objective of management accounting technique is the decision making process for the most companies.

There are studies that refer several determinants supported by the theory of contingency that influence the management accounting from a hotel. In this study we opted to analyze the organizational and cultural factors. Particular, we are going to study the vertical differentiation, decentralization, formalization, standardization and organizational culture. Damanpour (1991) noted that de vertical differentiation has a positive association with managerial innovations. The centralization/decentralization is a factor indicated by many authors (Elmore, 1990; Libby and Waterhouse, 1996; Luft and Shields, 2003; Chenhall, 2003). However, there are different opinions. The rate of use of management accounting techniques increases with decentralization or centralization? The same happens with formalization. However the most of the authors refer that bureaucracy and formalization influence the implementation of new techniques (Elmore, 1990; Luft and Shields, 2003). According to standardization, Drury and Tayles (2005) refer that higher is standardization, higher is the utilization rate of management accounting techniques.

In the light of these conclusions, we developed the following hypotheses:

Hypothesis 1: The proportion of use of traditional management accounting techniques is higher than the proportion of use of contemporary management accounting techniques in lodging industry.

Hypothesis 2: The most of the Portuguese hotels is located at stage II.

Hypothesis 3: The function chosen by most companies as a main objective of management accounting is the decision making process.

Hypothesis 4: Less than fifty percent of hotels use the USALI.

Hypothesis 5: The higher the vertical differentiation in the hotels, the higher the rate of utilization of management accounting techniques.

Hypothesis 6: The higher the decentralization in the hotels, the higher the rate of utilization of management accounting techniques.

Hypothesis 7: The higher the formalization in the hotels, the higher the rate of utilization of management accounting techniques.

Hypothesis 8: The higher the degree of standardization in the hotels, the higher the rate of utilization of management accounting techniques.

Hypothesis 9: The culture of hotel influence the utilization of management accounting techniques.

METHODOLOGY

According to Yin (2003), it was decided to adopt the method of questionnaire through of personal interviews. These was made by groups of students of the Tourism and Hotel management degree at Escola Superior de Turismo e Tecnologia do Mar/ Instituto Politécnico de Leiria, supervised by the teachers of the scientific fields of financial accounting and management accounting. The questionnaire structure was adopted from Gomes (2007).

The data was processed using SPSS (Statistics Packages for Social Sciences). In order to characterize the management accounting at the Portuguese lodging industry we utilized the univariate analysis. The relationships defined in the hypotheses were tested by univariate and bivariate analysis, for example, we have utilized: mean, mode, Spearman's Rho, Mann-Whitney test and Kruskal-Wallis test. According to Pestana and Gageiro (2003), Spearman's Rho measures the intensity of the relation among variables, and is commonly used to describe the relation among two ordinal variables or one ordinal and other scale variable. Due to the fact that this coefficient is not sensitive to asymmetric distributions, it does not require normal populations.

In order to reduce the variables related with management accounting and to contemporary management accounting, we conducted a factor analysis. To apply the factor analysis should be a correlation between the variables. According to all traditional management accounting techniques, the Kaiser-Meyer-Olking (KMO) measure of sampling adequacy was 0,627 and the Bartlett test of Sphericity was 97,781, p<0,001. According to contemporary management accounting techniques, the Kaiser-Meyer-Olking (KMO) measure of sampling adequacy was 0,627 and the Bartlett test of Sphericity was 97,781, p<0,001. According to contemporary management accounting techniques, the Kaiser-Meyer-Olking (KMO) measure of sampling adequacy was 0,8 and the Bartlett test of Sphericity was 98,493, p<0,001. The Cronbach alpha coefficients were 0,756 for the tectradicional (traditional management accounting techniques) and 0,849 for the teccontemporanea (contemporary management accounting techniques), which indicates satisfactory internal reliability for the two variables. So we can construct two indices, calculated by the arithmetic mean of the eight individual variables that characterize the management accounting techniques, traditional and contemporary, respectively.

FINDINGS AND DATA ANALISYS

In this study were analyzed 35 hotels from different categories and regions from Portugal. From these, 11 belong to national chains, 2 are subsidiaries of multinational hotel chains. The annual turnover ranges from $16.000 \in$ to $60.000.000 \in$. Of the 35 inquiries, 85,7% (30) have implemented and use management accounting processes. The 5 units that do not use this practice are small hotels that are not subsidiaries of either national or multinational hotel chains.

The traditional management accounting techniques are more used than contemporary techniques. Both the mean and the mode are higher in the traditional techniques. The traditional management accounting most used by the Portuguese hotels are *Budgeting*, *Budget deviation analysis* and *Strategic planning* with 76,7%, 66,7% and 66,6% respectively. Concerning the contemporary management accounting techniques, almost all of the techniques has a score of mean use below the null value, except for the *Activity-based budgeting* with a mean of 4,23. The **Hypothesis 1:** *The proportion of use of traditional management accounting techniques is higher than the proportion of use of contemporary management accounting techniques in lodging industry* is not rejected.

Analyzing the findings we verify that none of the Portuguese hotel has reached to the stage IV. It is necessary some further developments in hotel management accounting in order to reach the final stage. The largest proportion of hotels is at stage II (36,7%) and III (36,7%), which leads us to reject **Hypothesis 2:** *The most of the Portuguese hotels is located at stage II* because we have the same number of hotel units at stage III.

The hotels use management accounting mainly with the purpose of supporting their decision making process (65,7%) and the budgeting process (60%) too. Having present that the information supplied by management accounting is adequate to several management functions, we conclude that the functions to which this information is more adequate are Support the decision making process and Estimate cost of products/services, with a score of 5,43 and 5 respectively. So we can say that the **Hypothesis 3**: *The function*

chosen by most companies as a main objective of management accounting is the decision making process is no rejected. The process of decision making is priority.

The **Hypothesis 4:** *Less than fifty percent of hotels use the USALI* is not rejected, since only 42,9% (15) use USALI. All hotels that use USALI have implemented management accounting and have a high turnover. We have verified that all the subsidiary hotels of foreign enterprises use USALI.

To test the following hypotheses, where we will analyze if there are factors that influence the utilization rate of management accounting techniques in hotels, we have chosen *Spearman's Rho* in order to make a correlation analysis, as we are in the presence of ordinal variables. We present only the techniques that have a significant association for p<0,05.

The **Hypothesis 5:** The higher the vertical differentiation in the hotels, the higher the rate of utilization of management accounting techniques is not rejected for sales break-even (0,418), strategic planning (0,52) and traditional management accounting (0,454) techniques in general. According to Spearman's rho correlation analysis, there are a significant positive association between the techniques and the variable vertical differentiation.

The **Hypothesis 6:** *The higher the decentralization in the hotels, the higher the rate of utilization of management accounting techniques* is not rejected for *budgeting* (0,449), *budget deviation analysis* (0,39) and *activity-based budget* (0,491). According to Spearman's rho correlation analysis, there are a significant positive association between the techniques and the decentralization.

The **Hypothesis 7:** The higher the formalization in the hotels, the higher the rate of utilization of management accounting techniques is not rejected for sales break-even (0,408), strategic planning(0,46), product profitability techniques (0,397), activity-based costing (0,38), product life cycle costing (0,418), benchmarking (0,367), traditional management accounting techniques (0,495) and contemporary management accounting techniques (0,425). According to Spearman's rho correlation analysis, there are a significant positive association between the techniques and the formalization.

The **Hypothesis 8:** The higher the degree of standardization in the hotels, the higher the rate of utilization of management accounting techniques is not rejected for sales break-even, strategic planning, budgeting, product costing techniques, product profitability techniques, activity-based budgeting, activity-based costing, target costing, product life cycle costing, benchmarking, traditional management accounting techniques and contemporary management accounting techniques. According to Spearman's rho correlation analysis, there are a significant positive association between the techniques and the standardization.

Thus we can conclude that the higher the standardization of work process in the hotels the higher the rate of utilization of traditional management accounting techniques (0,434) and contemporary management accounting techniques (0,426), mainly *sales break-even* (0,592) *and product profitability techniques* (0,382). The higher the standardization of skills in the hotels the higher the rate of utilization of traditional management accounting techniques (0,613) and contemporary management accounting techniques (0,613) and contemporary management accounting techniques (0,595), *strategic planning* (0,482) *product profitability techniques* (0,566), *budgeting* (0,397), *activity-based budget* (0,485), *activity-based costing* (0,4), *target costing* (0,362), *product life cycle costing* (0,577) *and benchmarking* (0,505). The higher the standardization of results in the hotels the higher the rate of utilization of traditional management accounting techniques (0,585), mainly *sales break-even* (0,565), *strategic planning* (0,441), *product costing techniques* (0,416), *budgeting* (0,367), *product profitability techniques* (0,487), *activity-based costing* (0,42), *target costing* (0,509), *product profitability techniques* (0,573) *and benchmarking* (0,573) *and benchmarking* (0,573).

To test the **Hypothesis 9:** *The culture of the hotel influence the utilization of management accounting techniques,* we analyzed a set of variables that characterize the organizational culture. The ordinal variables are "hesitation in expressing disagreement with their superiors", "hierarchical level that makes decisions", "attitude towards risk" and "teamwork". The nominal variable characterizes the decision making of top management.

In relation to "hesitation in expressing disagreement with their superiors" we cannot find a significant association to management accounting techniques. According to the nominal variable we realized the Kruskal-Wallis test, but we cannot draw conclusions.

We find a significant negative association between the contemporary management techniques (-0,373) and the budgeting (-0,451) with "hierarchical level that makes decisions". It means the higher the decisions are making at the level of operational management the higher is the utilization of contemporary management

accounting techniques, mainly *activity-based budget* (-0,432), *activity-based costing* (-0,378) *and benchmarking* (-0,364). We find a significant positive association between the traditional management accounting techniques (0,553) with "attitude towards risk". It means the higher the hotels are lovers of the risk the higher is the utilization of traditional management accounting techniques, mainly *sales break-even* (0,568), *strategic planning* (0,386) *and product costing techniques* (0,449). We find a significant positive association between *the product profitable techniques* (0,449) and *tableau de bord* (0,371) with "teamwork".

Through the last four hypotheses, we have concluded that organizational structure and cultural factors influence the management accounting. However, this influence changes according to the techniques in question. The techniques of management accounting have different characteristics, so it is natural to be influenced by different determinants.

However, it is interesting to analyze the traditional management accounting techniques against the contemporary management accounting techniques, since it was possible to obtain a variable that featured all the traditional techniques as well as a variable that featured all the contemporary ones.

Thus we can say that traditional management accounting techniques are influenced by vertical differentiation, formalization, standardization and culture of the hotel. When there are a higher degree of standardization, formalization and vertical differentiation, the hotels are likely to implement the traditional management accounting techniques. According to the culture organizational, there is only one variable significantly associated with the use of traditional management accounting techniques, the "attitude toward risk". The hotels that are lovers of risk have a higher degree of utilization of traditional techniques.

The contemporary management accounting techniques are influenced by formalization, standardization and culture of the hotel. When there are a higher degree of standardization and formalization, the hotels are likely to implement the contemporary management accounting techniques. According to the culture organizational, there is only one variable significantly associated with the use of contemporary management accounting techniques, the "hierarchical level that makes decisions". The more decisions are taken at the lowest level of the organization, the higher the rate of utilization of contemporary management accounting techniques.

CONCLUSIONS

This research allows us to conclude that, nowadays, management accounting is a tool incorporated in the daily management practices of hotels, and useful to support the decision making process in several aspects. The Portuguese hotel managers believe in that, because most of the hotels that have answered our inquiry use management accounting techniques, with the main purpose of providing information to decision making process.

The traditional management accounting techniques are used frequently, but in contrast some of the contemporary techniques are not known and not adopted by the hotels. In Portugal, there is a weak use of USALI. It is not fully expanded yet across the hotels. It is more used in the large hotels and in hotels with a foreign influence.

The largest proportion of hotels is at stage II and III of the design of systems costs and performance measures model from Kaplan and Cooper (1998). The Portuguese hotels have a traditional financial system working fine, and this system elaborates the financial accounting and prepares reports for short periods of time where it is showed the cost of sales and stock valuation.

We verified that there is a moderate association between organizational structure and culture factors and the degree of adoption management accounting techniques. There are two variables that stand out, the formalization and the standardization. Both have a significant positive association with the utilization of traditional and contemporary management accounting techniques. This is supported by the contingency theory.

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