

**JENNIFER NICOLE ELSTON**

**MANAGEMENT ACCOUNTING IN THE HOSPITALITY  
INDUSTRY: A SYSTEMATIC LITERATURE REVIEW**

Dissertação



2018

**JENNIFER NICOLE ELSTON**

**MANAGEMENT ACCOUNTING IN THE HOSPITALITY  
INDUSTRY: A SYSTEMATIC LITERATURE REVIEW**

Mestrado em Contabilidade

Trabalho efetuado sob a Orientação de:  
Professor Doutor Luís Miguel Serra Coelho  
Professor Doutor Rúben Miguel Torcato Peixinho

Dissertação



2018

# **Management Accounting in the Hospitality Industry: A Systematic Literature Review**

## **Declaração de Autoria do Trabalho**

Declaro ser o(a) autor(a) deste trabalho, que é original e inédito. Autores e trabalhos consultados estão devidamente citados no texto e constam da listagem de referências incluída.

---

**Jennifer Nicole Elston**

Direitos de cópia ou Copyright

© Copyright: Jennifer Nicole Elston

A Universidade do Algarve tem o direito, perpétuo e sem limites geográficos, de arquivar e publicitar este trabalho através de exemplares impressos reproduzidos em papel ou de forma digital, ou por qualquer outro meio conhecido ou que venha a ser inventado, de o divulgar através de repositórios científicos e de admitir a sua cópia e distribuição com objetivos educacionais ou de investigação, não comerciais, desde que seja dado crédito ao autor e editor.

## **AGRADECIMENTOS**

Finalizada uma etapa particularmente importante da minha vida, não poderia deixar de expressar o mais profundo agradecimento a todos aqueles que me apoiaram nesta longa caminhada e contribuíram para a realização deste trabalho.

Gostaria de começar por agradecer aos meus orientadores o Professor Doutor Luís Coelho e Professor Doutor Rúben Peixinho. Obrigado por acreditarem em mim e aceitar-me como orientando, incentivar-me, apoiar-me sempre que precisei, por todas as sugestões pertinentes durante a construção final deste trabalho e que me deixaram usufruir de todo o seu conhecimento e experiência.

Agradeço aos meus pais, David Peter Elston e Monika Elston, que estiveram sempre comigo, ensinando-me, apoiando-me, amando-me incondicionalmente e acreditando sempre no meu potencial, sem eles toda esta jornada não teria sido possível.

A todos os meus amigos e colegas pela amizade, apoio e motivação demonstrada ao longo deste ano. Destaco particularmente, Brígida Gonçalves, Catarina Ilhéu e Mariana Plesca pela vossa paciência, amizade e motivação dada ao longo deste ano foram inalcançáveis.

Agradeço também a todos aqueles que se dispuseram a ajudar-me na realização desta dissertação, ou que de alguma forma tenham contribuído para o aumento do meu conhecimento tanto profissional e educacional ao longo deste período. Não poderia deixar de agradecer a Andreia Mota, para além do seu apoio constante e amizade ao longo desta jornada também permitiu igualmente usufruir de toda a sua experiência e conhecimento, que também sem não teria sido possível a conclusão deste trabalho.

*“Each dream you leave behind is a part of your future  
that will no longer exist. (Steve Jobs)”*

## RESUMO

Esta dissertação revê a literatura existente no domínio da Contabilidade de Gestão sobre o uso do *Uniform System of Accounts for the Lodging Industry* (USALI) na indústria hoteleira. A metodologia utilizada é a revisão sistemática da literatura, a qual permitiu identificar e discutir um conjunto de trabalhos relevantes sobre este tema. A revisão sistemática dos 20 artigos que compõem a amostra final revela que a discussão desta temática se centra na estrutura e utilização do USALI, na ligação entre este método e a contabilidade baseada na responsabilização, na forma como os hotéis calculam a rentabilidade dos seus produtos e serviços, na forma como os custos indiretos são tratados no USALI e nas vantagens e desvantagens associadas ao uso do USALI. A discussão sistematizada dos artigos permite concluir que existem oportunidades de investigação neste domínio com interesse académico e profissional.

**Palavras-chave:** Contabilidade de Gestão, hotelaria, USALI, sistemas de custeio, indústria hoteleira, contabilidade baseada na responsabilidade.

## **ABSTRACT**

This master thesis reviews the existing literature in the management accounting area concerning the use of the Uniform System of Accounts for the Lodging Industry (USALI) in the hospitality industry. The methodology used in this study is the systematic literature review, allowing the identification and discussion of a relevant number of studies in this domain. The systematic revision of the 20 academic papers in the final sample reveals that the discussion in this domain relates to the structure and use of the USALI, to the connection between this method and the responsibility accounting approach, to the procedures that hotels use to calculate profitability of their products and services, to the way that indirect costs are classified in the USALI and to the advantages and disadvantages associated to the use of the USALI. This systematic review of the literature concludes that there are research opportunities in this domain that may be of interest to both academics and practitioners.

**Keywords:** Management accounting, hospitality, USALI, costing systems, hotel industry, responsibility accounting.

## GENERAL INDEX

AGRADECIMENTOS .....	iv
RESUMO .....	v
ABSTRACT .....	vi
GENERAL INDEX .....	vii
INDEX OF FIGURES .....	ix
INDEX OF GRAPHICS.....	x
INDEX OF TABLES .....	xi
LIST OF ABBREVIATIONS.....	xii
Chapter 1 INTRODUCTION .....	13
Chapter 2 THEORETICAL FRAMEWORK.....	14
2.1. Management Accounting Systems and Hospitality Industry .....	16
2.1.1. Responsibility Accounting in the Hospitality Industry .....	22
2.1.2. Standard Costs .....	24
2.1.3. Budgeting .....	25
2.1.4. Activity-Based Costing (ABC).....	27
2.1.5. Performance measurement in the Hospitality industry .....	30
2.1.6. Balance Scorecard .....	31
2.1.7. USALI – Uniform System of Accounts for the Lodging Industry.....	32
2.2. Summary .....	33
Chapter 3 METHODOLOGY.....	36
3.1. Systematic Literature Review vs Traditional Literature Review .....	36
3.2. Description of Systematic Literature Review Process.....	37
3.2.1. Scoping.....	38
3.2.1.1. Choice of Subject-matter.....	38
3.2.1.2. Scoping Study .....	38
3.2.1.3. Panel of Consultants.....	38
3.2.2. Planning.....	39
3.2.2.1. Databases .....	39
3.2.2.2. Keywords .....	40
3.2.2.3. Search Strings .....	41
3.2.3. Identification .....	41
3.2.3.1. Exclusion and Inclusion criteria .....	41
3.2.4. Screening.....	42

3.2.5. Eligibility .....	42
3.3. Summary .....	43
Chapter 4 RESULTS.....	44
4.1. Articles included in SLR .....	44
4.1.1. Search Results .....	44
4.1.2. Application of Exclusion and Inclusion Criteria .....	45
4.1.2.1. Application of the Exclusion Criteria .....	45
4.1.2.2. Application of Inclusion Criteria .....	47
4.1.3. Statistics of Articles .....	49
4.2. Report of the Findings.....	50
4.2.1. USALI Background .....	50
4.2.2. USALI Structure .....	51
4.2.3. USALI and Responsibility Accounting.....	52
4.2.4. USALI and Profitability Measurement.....	55
4.2.5. USALI Advantages .....	58
4.2.6. USALI Disadvantages .....	59
4.2.7. The use of the USALI in the hospitality industry .....	60
4.2.8. Summary .....	62
Chapter 5 CONCLUSIONS .....	63
5.1. Personal Reflections.....	63
5.2. Future Investigations.....	64
5.3. Limitations.....	65
REFERENCES .....	66



## INDEX OF FIGURES

Figure 1 - Four Stages of Management Accounting Systems. Adapted Cooper and Kaplan (1997) .....	20
Figure 2 - Stage four system. Adapted Kaplan (1990) .....	21
Figure 3 - Two views of activity-based costing. Adapted Turney P. (1992).....	28
Figure 4 – ABC to ABCM. Adapted Cokins (1996). .....	29
Figure 5 - ABC to ABM. Adapted Cokins (1996).....	30
Figure 6- Five Stages of a Systematic Review. Adapted from Denyer and Tranfield (2009.).....	37
Figure 7 - Adapted from Pajrok 2014, Model of Hotel Structure as an Investment Center.....	54
Figure 8 - Hotel Structure as an Investment Centre - Responsibility Centres of a Hotel (Adapted from American Hotel and Lodging Educational Institute, 2014) .....	56
Figure 9 - Calculation of Net Income according to USALI (Adapted from Padjok, 2014).....	57

## **INDEX OF GRAPHICS**

Graphic 1 - Number of Articles by year .....	49
--	----

## **INDEX OF TABLES**

Table 1 - Traditional and Contemporary Management Accounting Techniques. Adapted by Ferreira 2002.....	17
Table 2- Keywords for systematic literature review.....	40
Table 3- Search Strings.....	41
Table 4- Search Results .....	44
Table 5- Eligible articles for SLR after applying exclusion Criteria.....	46
Table 6 - Articles included in the SLR .....	48

## **LIST OF ABBREVIATIONS**

**ABC** – Activity Based Costing

**ABCM** – Activity Based Cost Management

**ABM** – Activity Based Management

**B-ON** – Biblioteca do Conhecimento Online

**MA** – Management Accounting

**SLR** – Systematic Literature Review

**SSRN** - Social Science Research Network

**USALI** – Uniform System of Accounts for the Lodging Industry

## **Chapter 1 INTRODUCTION**

Management accounting (MA) has changed significantly over the last two decades. The academic and professional community have witnessed several modifications due to the alterations in the internal and external environment of organizations. Managers are now more aware that the quality of the information provided by accounting systems is crucial to support the decision-making process.

The hospitality industry is one of the most challenging activities and the impact of this industry on the global economy is growing fast. The hospitality industry has several characteristics allowing to conclude that the information provided by management accounting systems may play an important role in the management of hotels. In fact, the hospitality industry is characterized by having a consumer-oriented market, intensive competition, high volatility, severe heterogeneity in clientele and by having a significant percentage of fixed costs.

This master thesis provides a systematic literature review (SLR) of academic papers focusing on management accounting issues related to the use of the Uniform System of Accounts for the Lodging Industry (USALI) in the hospitality industry. The systematic review of the 20 papers selected in the final sample reveals that most of the discussion in this domain relates to the structure and use of the USALI, to the connection between this method and the responsibility accounting approach, to the procedures that hotels use to calculate the profitability of their products and services, to the way that indirect costs are classified in the USALI and to the advantages and disadvantages associated to the use of the USALI.

The results of this study allow the identification of three research gaps that may impact both at academic and professional levels. In fact, the use of USALI in the hotels may benefit from new academic research to adjust the information provided by the system and to facilitate the decision-making process of managers in the hospitality industry.

This master thesis is divided in five Chapters. Following this first Chapter addressing the introduction of the study, chapter two presents the theoretical framework of this master thesis. Chapter three describes the methodology employed in the present study.

Chapter four presents and discusses the results of the study. Lastly, Chapter five includes the final conclusions, personal reflections, presents research opportunities in this domain and discusses the limitations of the study.

## **Chapter 2 THEORETICAL FRAMEWORK**

The understanding of management accounting systems in the hospitality industry requires knowledge about the evolution of the MA and hospitality industry. In the last two decades, MA systems changed significantly. These changes were particularly evident following a period where managers recognized that most of the MA systems failed to provide detailed and timely information to the decision makers. In fact, MA systems used until the 1980s were mainly based on the direct costs of the processes, leading most of the information to be classified as irrelevant in today's markets (Johnson & Kaplan, 1987).

Changes in management accounting practices have been slow over the years. Several barriers to this slow development have been pointed out and can be summarized as follows (Robalo, 2009): unclear definition of the objectives for the new MA systems; inadequate knowledge of the new systems; inadequate human resources to use these new systems; insufficient support of managers and directors for the implementation of more advanced methods (Shields & Young, 1989); national culture (Brewer, 1998). Researchers are now more concerned with the study of accounting systems in a social and organizational context. This new approach allows the understanding of their interactions, avoiding the traditional paradigm that people and organizations have rational and objective behaviour (Major & Vieira, 2009).

On the other hand, the hospitality industry is a consumer orientated market, i.e., it operates in a highly competitive market with specific and distinct characteristics compared to other industries. The economy of the hotel industry is characterized by high volatility in demand, heterogeneity of clients, seasonality, together with a structure of fixed costs, service intangibility and the perishable nature of the product (Downie, 1997).

MA systems and MA scientific research is mostly related to industrial companies, which neglects the study of these issues in the service industry, especially those linked to tourism (Pellinen, 2003). However, there is a recent growing interest in MA in the context of hospitality industry. In fact, a considerable amount of scientific research linking these two areas of the literature has arisen over the last decade.

Harris (2006) states that the information provided by MA systems only adds value if it is adequately related to the product or business. Therefore, researchers need to provide appropriate design and use of management control systems for service industries, especially the hospitality industry, given its importance in several economies (Sharma, 2002). In fact, many hotels rely exclusively on financial accounting systems, due to legal obligations or because they are required by other firms that interact with them. Additionally, managers are still reluctant to implement suitable management accounting systems that cater to their specific needs due to the high implementation costs usually associated (Lamelas, 2004), and because management accounting requires a specific set of skills that are not so common as that required by financial accounting. These reasons explain why firms abdicate from implementing MA and relying solely on the accounting systems that are mandatory (Johnson & Kaplan, 1987).

As such, it is crucial to identify which MA techniques are being used in the hospitality industry and discuss the costs and benefits associated to the use of MA techniques in this domain. The use of a SLR will provide scientific guidance to understand the link between the management accounting literature and the hospitality literature. Further, the use of such methodology will help identify research gaps that may be explored in future studies.

The literature review process connecting the management accounting literature and the hospitality industry starts with a scoping study. This scoping study is a preliminary assessment of the potential size and scope of the existing literature and aims at analysing the key extant contributions. Particular emphasis will be given to the evolution of MA systems in the hospitality industry and to the MA techniques that are used by the hospitality industry.

## **2.1. Management Accounting Systems and Hospitality Industry**

In 1918, Sorin emphasises that the business dictionary defines management accounting as *“making information on the accounts and management reports to provide information, financial and statistical accurate and timely information required by managers to base decisions daily and on short term. Unlike financial accounting, which produces annual reports, mainly for outsiders, management accounting generates monthly or weekly reports to internal stakeholders”*.

The development of management accounting in the last decades was not a straightforward process. The eighties showed a strong deceleration in the management accounting attention as these years were described as the ones where information available was not timely, was heavily distorted and/or irrelevant for an adequate management control (Nunes, 2009). The nineties, however, brought new MA systems and kicked off a revolution in this arena. Examples of new costing systems coming into place at this time are the Activity Based Costing (ABC), the Activity Based Management (ABM), the Balance Scorecard, the Target costing, the Life Cycle Assessment and the Strategic management accounting (Bjornenak & Olson, 1999).

As shown in Table 1, in contrast to the traditional techniques, which are orientated towards the financial details of organizations, the new MA techniques mentioned above link financial and non-financial information to cater to a more strategic purpose. Such techniques thus help connect operations with the business strategies and objectives (Chenhall & Langfield-Smith, 1998).



Traditional Techniques	Contemporary Techniques
<ul style="list-style-type: none"> <li>• Budgeting;</li> <li>• Budget deviation analysis;</li> <li>• Product costing;</li> <li>• Product Profitability;</li> <li>• Return on investment;</li> <li>• Sales Break-Even;</li> <li>• Strategic Planning;</li> <li>• Tableau de Bord;</li> </ul>	<ul style="list-style-type: none"> <li>• Activity-based Budget;</li> <li>• Activity-based Costing;</li> <li>• Balanced Scorecard;</li> <li>• Benchmarking;</li> <li>• Customer Profitability Analysis;</li> <li>• Economic Value Added;</li> <li>• Product life cycle costing;</li> <li>• Target costing.</li> </ul>

*Table 1 - Traditional and Contemporary Management Accounting Techniques. Adapted by Ferreira 2002.*

In the last two decades, there have been various changes in the structure of organizations and markets, which are nowadays much more competitive and technologically advanced (Bruns & Vaivio, 2001). MA systems need to be part of these significant changes and must continue to develop in order to provide relevant information to decision makers (Faria, Trigueiros & Ferreira, 2012). Interestingly, contemporary MA techniques, which are theoretically sound and able to provide more accurate and relevant information to managers, are not adopted in practice by most organizations (Jones, 2008), an issue that seems to be related to their high implementation cost (Fowler, 2010). Nevertheless, the development of MA systems was excelled by some phenomena such as (Scapens, Ezzamel, Bruns & Baldvinsdottir 2002):

- ✓ Globalization – This is normally pointed out as the main motive and reason for various events in the world. It can be described as the link and dependency existing between economic level and financial level of the diverse economies, making it hard to delimit borders, as any alteration in one economy will in somehow affect other economies;
- ✓ Technological development - The development of models and mechanism of production made possible to provide human and financial resources towards other areas. Nowadays, the access to information is more facilitated given the evolution of software that can simultaneously handle distinct information

responding to the diverse necessities and requirements of different management subjects;

- ✓ Organizational structure – In the last decades, there has been an evolution on organizational structures, with the introduction of outsourcing organizations. There is a natural necessity for change motivated by the markets where the organization operates in. Because of market changes, these also incite structural adjustments, alterations in the internal and external clients' needs and even in business strategies.

In the late twentieth century tourism was internationally recognized for being the most flourishing industry. In fact, tourism became vital after world war II, when it gradually became an international phenomenon (WTO, 2003). The rise of this industry called for more appropriate information systems in hotels, so that managers could satisfy their customers' expectations and achieve their organisational goals (Damonte, Rompf, Bahl & Domke, 1997). Hence, given the high level of competitiveness in the hospitality industry, and the fact that MA may facilitate the improvement of performance levels in hotels, studying MA issues in the hospitality industry became paramount (Downie, 1997). Yet, interestingly, the research of MA in this industry is still very limited (Sharma, 2002). In fact, the full understanding of the hospitality industry must consider two basic complexities. First, hotels encapsulate three different activities: service, retail and production. Second, the hotel industry has a service element, meaning that hotels are service units, a category between mass and professional services (Fitzgerald, Johnston, Brignall, Silvestro & Voss 1991).

The fact that hotels revolve around three different activities, led Kotas (1999) to argue that accounting methods and procedures should adopt a revenue accounting approach, instead of the classic management accounting angle developed by cost-orientated manufacturing industries. The process of producing information for various stakeholders of a company should be driven by information needs, to assist them in operational and strategic decisions. MA produces management information and financial operating data about organizations activities, processes, operating units, products, services and customers (Persic, Prohic e Ilic, 2001). The complexity of hospitality industry is making a single information system that encapsulates all three activities in one, this is an extremely challenging task (Harris, 1995).

Due to this encapsulation of activities, Lakshmi (2011) defines the hospitality industry as primarily satisfying the demand for accommodation, food and beverage. For the achievement of the final service, hotels must collaborate with a variety of service industries (entertainment, convention agencies, online travel agencies, local sightseeing agencies and many others). Makrigiannakis and Soteriades (2007) go further and say that these three activities can be described by their cost structures:

- ✓ Accommodation - A service of the hotel industry, being mainly described by its fixed cost structure and the high investment in its structure and equipment;
- ✓ Drinks - Represented by its retail nature, low fixed costs;
- ✓ Food - Production nature behind the activity developed, with also low fixed costs.

The service element of the hotel industry raises additional issues. Besides the high fixed cost structure in the hospitality industry, there are other characteristics that make this industry particularly challenging. Firstly, the hotel “product” has a perishable and intangible nature, great heterogeneity, and is exposed to the fluctuation of demand and intensity of human resources that is required. Further, the hospitality industry operates in a very complex and competitive market. Hence, hotel managers must anticipate and respond to customers needs and desires very quickly. Using MA systems are thus important, since they can help managers take efficient and effective decisions (Mia & Patiar, 2001).

Considering this intense industry-wide competition, where customers persistently demand the best deals, it is crucial that managers and employees fully understand the dimension of the business, including how it should continuously change in accordance with societal needs and customers’ preferences (Lakshmi, 2011). For instance, the complexity of customer satisfaction is a new reality that cannot be separated from the definition of tourist (Cunha, 2001). Just to give an example, in the last century, a tourist was any person who travelled simply out of pleasure. Nowadays, people travel for many reasons, like leisure, work, health or even religious reasons. All of them are part of contemporaneous tourism, which clearly shows the diversity of demand within the tourism industry.

Not surprisingly, managers in the tourism industry need to have reliable and relevant information about their actual costs. But even the most advanced MA system will not guarantee success, but a poor one may impasse even the best efforts of people in an organization to make the company competitive (Atkinson, Anthony, Banker, Robert, Kaplan, Young & Market, 1997).

According to Cooper and Kaplan (1997), managers can view the development of their integrated cost and performance systems as a journey through four stages, as follows on Figure 1:

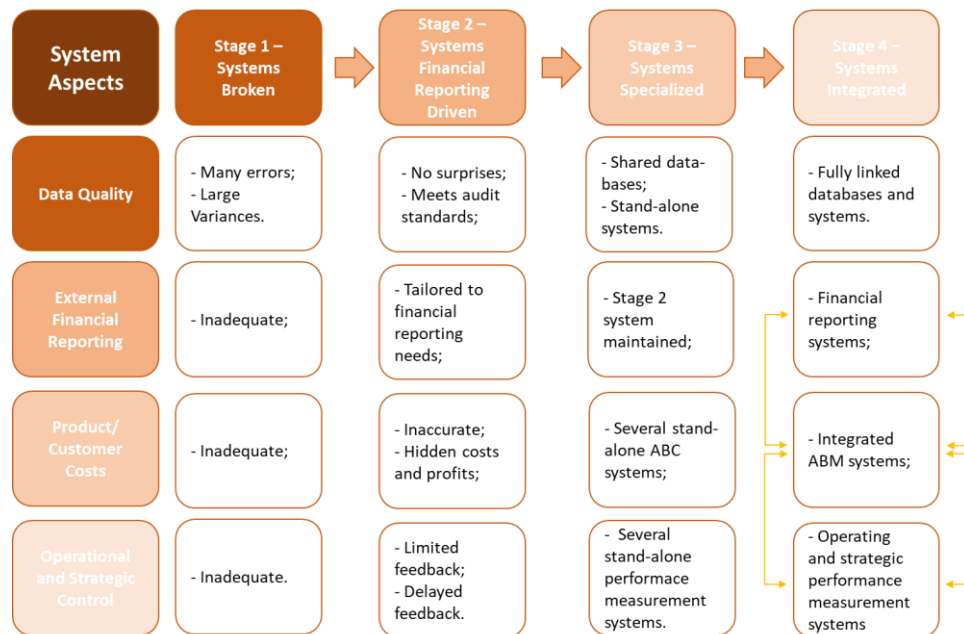


Figure 1 - Four Stages of Management Accounting Systems. Adapted Cooper and Kaplan (1997)

Most enterprises have systems that stand at stage two, i.e., that meet the financial reporting requirements, collects costs by responsibility centres. As such, firms in this stage of development are unable to determine costs by activities and business processes and operate with reports that highly distorted *vis-à-vis* their product costs and customer costs. Moreover, in such firms' information is not timely and there is no incentive for employees to have a pro-active problem-solving approach.

Clearly, it is hard to make a hotel flourish under such a MA set up (Persic et al., 2001). Persic et al. (2001) suggests that a stage three MA system as portrait above would be

more adequate for this industry. This includes three well-designed and well-functioning systems, i.e., an official system that meets the needs of external stakeholders plus two additional systems that provide highly relevant sources of information that can be continuously and inexpensively customized and updated. Some of the typical stage three systems are the ABC/ABM (Activity based cost/ Activity based Management), TQM (Total Quality Management) or the Balanced Scorecard. Not all hotel managers like stage three systems, as they involve more than one financial system operating simultaneously and unlinked from one another, as the information provided by these may at sometimes conflict.

Cooper and Kaplan (1997), however, suggests that the ultimate system would be a stage four system, which includes a cost and performance measurement system, that integrates with each other and with the official financial reporting system. Figure 2 summarizes the key features of such a system:

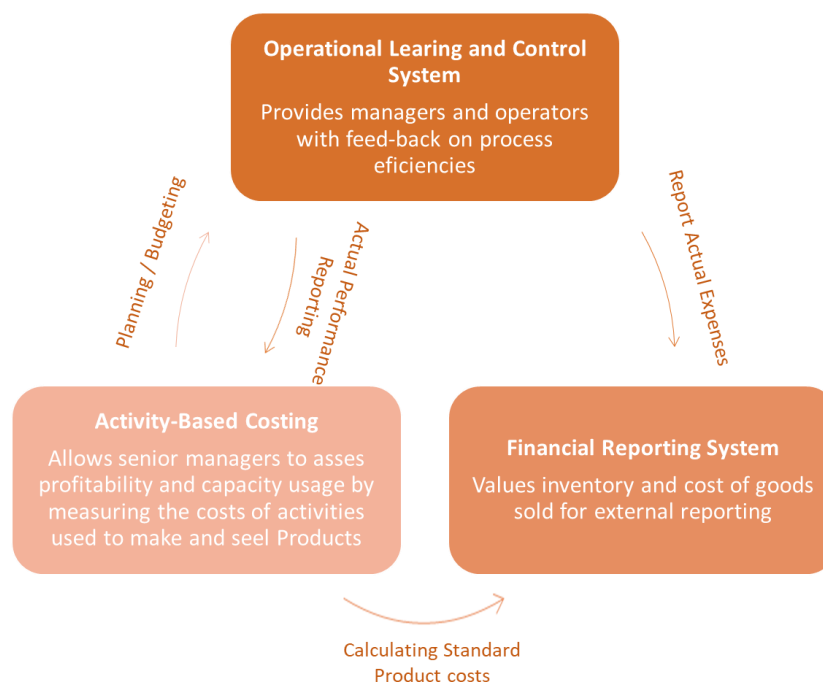


Figure 2 - Stage four system. Adapted Kaplan (1990)

In sharp contrast to the previous systems, a stage four system gives great emphasis to budgets and provisions. Kaplan (1990) reports some attempts to implement this stage four system, but the evidence showed that systems provided poor information on profitability of products, clients and distribution channels.

This section discussed the evolution of management accounting systems focusing on the hospitality industry together with the different stages on management accounting systems. The next sessions provide some guidance on some specific management accounting techniques that are particularly relevant in the hospitality industry.

### **2.1.1. Responsibility Accounting in the Hospitality Industry**

Responsibility accounting is the delegation of authority allowing the levels of management within the organizations to be responsible for decisions regarding the economic factors that they control (Garrison & Noreen, 1997). In other words, responsibility accounting is the theory and the system through which authority is given to specified personnel. Each person in authority is held accountable for attaining planned objectives (Clifford, Rhoads, Richard & Rosenblatt, 1981).

As suggested by Persic et al. (2001), the basic idea behind this type of accounting system is to judge each manager's performance based on well he/she manages the costs and revenues that they can control. For managers in the hospitality industry, this type of system can solve several problems by permitting managers to focus their efforts where they do better. In attempting to control costs and to optimize their outputs, managers in hotels have many decisions to make. Consequently, each manager is responsible for the items of revenue and cost under their control, and for the deviations between budgeted goals and actual results. Garison et al., (1997), propose that responsibility accounting lies on three basic premises:

- ✓ Costs can be organized in terms of the levels of management responsibility;
- ✓ Costs charged to a department are controllable at that level by its managers;
- ✓ Effective budgeted data can be generated as a basis for evaluating current performance.

The increasing level of decentralization in hotels led responsibility accounting systems to evolve in order to guarantee that operating results are communicated through the management hierarchy. Reports that follow a responsibility accounting approach should not present revenues or costs that are not under control of a specific manager. Most of the information shown in these reports tends to be monetary, but this does not exclude the possibility of some non-monetary indicators to be included (Persic et al., 2001).

Hotels offer an excellent opportunity to study responsibility accounting because a wide variety of personalized services and specialized functions are necessary in their operations. Following the methodology put forward by Clifford et al., (1981), responsibility accounting has four fundamental concepts: authority, participation and motivation, accountability and control. Top Managers review these reports to evaluate the efficiency and effectiveness of each unit and thus, each manager. Responsibility accounting ensures that the reportable segment may be a business segment or a geographical segment (Persic et al., 2001). Segments are created based on whether the products or services are related to one another. Persic et al., (2001), defines the variables used to distinguish a business segment as follows:

- ✓ The nature of products or services;
- ✓ The nature of the production processes;
- ✓ The type or class of customer for the products or services;
- ✓ The methods used distribute the products or provide the services;
- ✓ The nature of the regulatory environment.

Under the same approach, a geographical segment should be considered when identifying segments by geographical variables such as:

- ✓ Similarity of economic and political conditions;
- ✓ Proximity of operations;
- ✓ Special risks associated with operations;
- ✓ Exchange control regulation;
- ✓ Underlying currency.

Accountability ensures that managers are responsible for the results of their segment, measuring and appraising the company's progress toward attaining its objectives. As such, managers must be free to select and implement courses of action, but with some limitations. Control is the attempt to eliminate nonconformities between actual and planned results. When achievements differ significantly from planned results, the responsible managers must act to correct the cause of deviation (Persic et al., 2001).

### **2.1.2. Standard Costs**

Standard costs of hotels identify the costs that should be reported for volume or level of rooms, food, beverage and other hotel activities. It focuses on the nature and use of a standard costing system, where unit norms and/or standards are developed for direct material and direct labour quantities and/or costs (Raiborn, Barfield & Kinney, 1993).

In standard costing, cost standards indicate the expected cost of cost objects. A comparison of actual costs with standard costs can determine if actual costs are in line with what they should be. Examples of costing standards are the cost for an item on the menu, the cleaning for rooms, laundry and other items of each occupied bed per a day (Persic et al., 2001). After the definition of standards, actual costs of inputs and quantities are measured against these standards to evaluate whether operations are proceeding within the limits that management had set (Persic et al., 2001). The next step is management by exception (Garrison & Noreen, 1997), where managers are expected to dedicate their attention to any of the inputs or quantities that deviate from the standard and, if this is not the case, allocate their time to other issues.

Standard costs should be a part of the budgeting process and the income statement analysis given the assumption of responsibility accounting in the internal reporting system. In the application of standard costs, managers may find certain difficulties such as: determining which variances are significant, reducing costs, promoting work that is well done or avoiding negative impact on supervisor. It is very important that the good work is appropriately rewarded (Persic et al., 2001).

These standard costs are important as they can assist in the implementation of responsibility accounting as the responsibility of overall cost control is assigned to the manager. There is some evidence in the use of standard costs in the hospitality industry



as Greek Luxury Hotels and Spanish Hotels were found to use product costing (Uriquidi, 2013).

### **2.1.3. Budgeting**

Budgeting is an important method of expense and revenue control that goes in line with responsibility accounting and promotes cost consciousness. If costs remain within the standards set, managers do not need to allocate their time to those issues, unless costs fall outside these standards (Persic et al., 2001). The great majority of sizeable hotels budget their operations, at least in the short term. Many studies report that hotels using budgeting in the long term represent less than fifty per cent of the total as many hotel managers feel that any forecast going further than a year is inevitably subjective (Collier & Gregory, 1995).

Sharma (2002), states that hotel size, management levels, uncertainty and unpredictability of the environment and competition exert considerable influence on some budgeting systems characteristics. The budgeting approach most often employed is the top-bottom one (Schmidgall & Ninemeier, 1987). Although one study revealed that the cooperative approach was often used, the sample of hotels used in the study was very small, which compromises the generalization of results (Collier et al., 1995). A clear majority of hotels use effort targets during budget preparation periods. In most cases, these targets are expressed in terms of profitability, although productivity and capital return targets have also been reported.

The first stage of the budgeting process involves sales forecast. In this stage, historical operating data is most commonly used, while other factors such as local and national data and the perceived impact of price changes are also taken in to consideration. For the forecast of sales, a wide range of techniques can be used. Various studies show that zero-based budgeting is used in many US hotels, yet it is not so popular in Scandinavia (Schmidgall, Borchgrevink & Zahl-Begnum, 1996). More recently, Makrigiannakis and Soteriades (2007) revealed that zero-based budgeting was used by 60% of the hotels in their Greek sample.

The time invested in Budgeting by managers varies between three to five months and usually implies the collaboration of many different hotel departments, with the

financial/accounting department taking the leading role. Makrigiannakis and Soteriades 2007 also concludes that the hotel chain dimension is a relevant variable explaining the resources allocation to this process.

The budgeting process is considered as the overall plan that addresses all revenue and expenses sources that are part of the income statement and related reports. The annual budget is one of the main statements in which managers evaluate the results of the operations whereas operating budgets allow management to plan and control their activity. The financial accounting department plays a major role in the budgeting process since it has the obligation to provide other departments with basic information for projection of costs (Persic et al., 2001).

If the annual budget needs revision, managers should provide the necessary adjustments three months after the beginning of the budgeted period, with regular revisions thereafter. These revisions tend to happen to identify problems and conduct performance control. Most budget costs are monitored, being normally tolerated only limited variations between budgeted and actual costs (Makrigiannakis & Soteriades, 2007). Budgets still constitute the principal means for performance measurement and for the calculation of management bonuses. Sharma (2002) concludes that these go a long way to explain the differences in budgeting rationale worldwide, since the average hotel type and size, environmental characteristics and competition intensity undoubtedly vary from country to country (Makrigiannakis & Soteriades, 2007).

Budgeting is a highly adopted and common technique used in the hospitality industry (Phillips, 1994; Jones, 2008; Pavalatos & Paggios, 2008; Uyar & Bilgin, 2011; Urquidi, 2013). Various studies conclude that the use of this technique is almost mandatory. For instance, the Turkish hotel industry evaluates firm's performance, objectives' accomplishment and other important issues with the help of budgeted deviation analysis (Uyar & Bilgin, 2011). Spanish and Portuguese hotels widely adopt budgeting in their management accounting systems. Faria et al., (2012) concluded that, from their sample of 66 hotel units, only four hotels did not have an annual budget, despite only 21% have long-term budgets. Additionally, Arroiteia, Santos and Gomes (2013) reveals that budgeting in the Portuguese Hotels was the most used management accounting

technique (81,3% cases) and budget deviation analysis is widely used by hotels (68,7% cases).

#### **2.1.4. Activity-Based Costing (ABC)**

Drury (2000) states that the ABC started to be applied originally in the manufacturing industry and only later was applied to the service industry. This system tends to be more sophisticated than a traditional costing system since it provides an extensive use of cause and effect cost allocations and tend to have a high level of accuracy. Activity based costing also evaluates whether management is currently serving its customers and how this service can be improved in the future. Through this costing system, resources are allocated to activities, then activities are assigned to cost objects based on their use (Raffisch & Turney, 1991). This contemporary cost system allows firms to have a more accurate costs and provide firms with relevant information for management decision-making process, although it is expensive to develop and to maintain.

The implementation of the ABC methodology can be summarized in five steps (Roztocki & Needy, 1999):

- ✓ Review the company's financial information;
- ✓ Identify main activities;
- ✓ Determine the operating costs for each activity;
- ✓ Select cost drivers;
- ✓ Calculate Operating costs for cost objects.

The process view and cost assignment view constitute the two dimensions of the ABC that are summarized in Figure 3. Process view is the horizontal dimension that shows the cost drivers and the performance measures to identify improvement opportunities. The cost assignment is the vertical view that allocates resources to activities, and activities to the cost objects (products, services, costumers, market segment). Activities are the intersection of the two views (Turney, 1992).

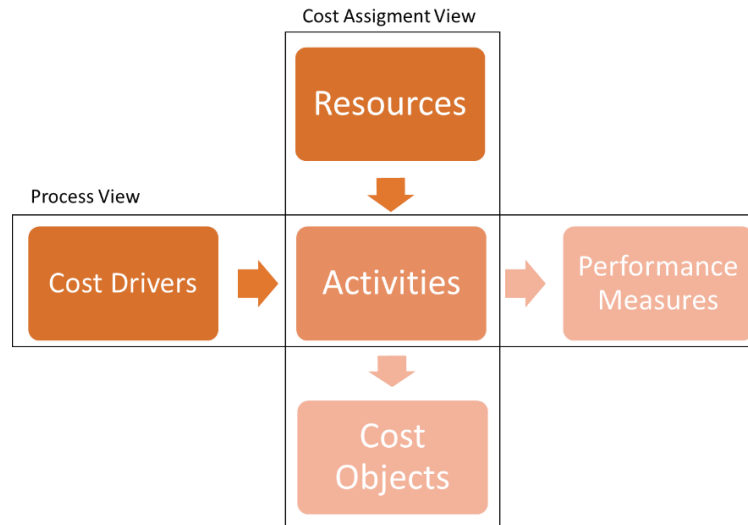


Figure 3 - Two views of activity-based costing. Adapted Turney P. (1992).

The ABC system is based on two premises. First, the support and indirect resources allow activities to be performed and these costs should be allocated to activities. Second, the demand for activities is created by services and customers (Turney, 1992). ABC allows managers to make a wide range of decisions regarding the activities and their outputs. The outputs of the ABC may affect decisions such as price definition, introducing or discontinuing services, marketing support for services and customers. In the hospitality industry, the ABC outputs affect several services such as the check-in, room service, cleaning of guest rooms and public areas, maintenance and sales (Persic et al., 2001).

Hotels are described as the perfect type of organization to implement the ABC system. However, Tai (2000) suggests that, although there is a considerable knowledge in Europe about the ABC system, there was a low understanding on how it could be applied in the hotel industry. For instance, Pavlatos and Paggioes (2009) shows that, although ABC systems are applied in the Greek hotel industry, they are not as detailed as one would expect. In fact, this study suggests that those hotels include only a small number of cost drivers and calculate the cost of a limited number of activities, such as housekeeping, check-in/out, reservations, food production/service, marketing, and general administration.

The ABC system is essential to discuss which services the hotel should provide, which customer categories are profitable, if the product mix is successful and to provide opportunities for cost reduction. It is important to emphasize that the implementation of the ABC is not enough to reduce costs. The cost reduction can only be achieved by decisions that are provided by the outputs of the process. The combination between the ABC system and management decisions bring the information system to a different level: The Activity-Based Costing Management (ABCM) (Persic et al., 2001).

ABCM relies on the ABC system for information to identify opportunities to improve cost of activities. The main goal of this approach is to understand the cost structure, behaviour and economics of an organization to improve its operations and is summarized in Figure 4.

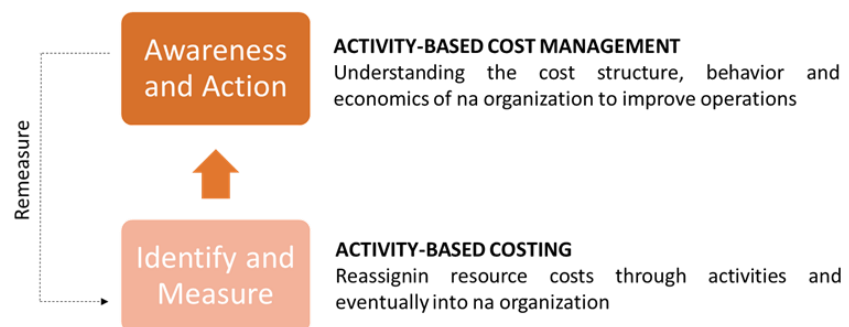


Figure 4 – ABC to ABCM. Adapted Cokins (1996).

Other management accounting system that is linked to the ABC is the Activity-Based Management (ABM). This approach involves the effective, efficient, and consistent improvement of an organization’s activities to achieve excellence throughout organization. In particular, it allows a value chain analysis to improve strategic and operational decisions as can be seen in Figure 5. Drawing on the information provided by the ABC system, the ABM system includes pricing and product-mix decisions, process improvements, and product design decisions.

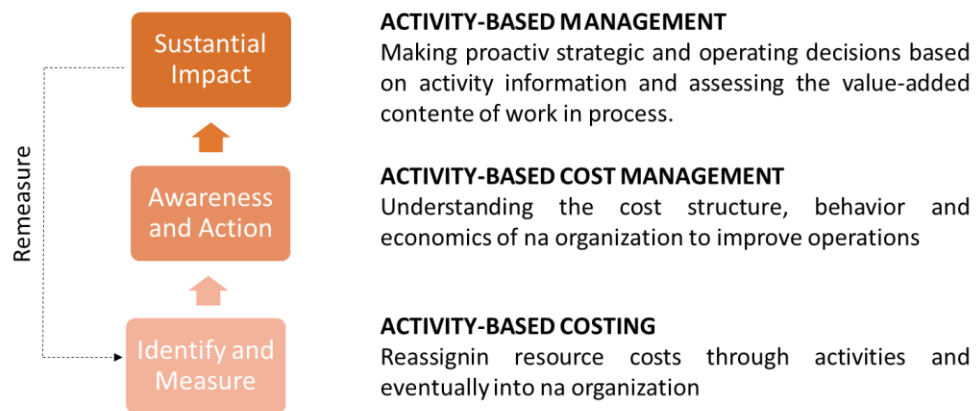


Figure 5 - ABC to ABM. Adapted Cokins (1996)

### 2.1.5. Performance measurement in the Hospitality industry

The performance measurement can be divided in two different categories: the financial performance and the non-financial performance. In the hospitality industry, it is possible to identify several financial and non-financial variables that should be monitored (Makrigiannakis & Soteriades, 2007).

Although both types of performance are important, there is no agreement among researchers on the practical application of a balanced measure. Academic studies reveal that financial performance measurement is still dominant in the United Kingdom (Atkinson & Brander Brown, 2001) and Australia (Mia & Patiar, 2001). Evidence on the European domain suggests that there is some balance between the financial and non-financial measurements (Harris & Monglello, 2001). Even though non-financial performance evaluation have been proved to be essential in monitoring customer satisfaction, these types of measures are still not used to reflect bonuses in the hospitality industry, which use primarily financial measures (Banker, Gordon & Srinivasan, 2000).

### 2.1.6. Balance Scorecard

Balance scorecard is a product of the stage three on the evolution of MA techniques. Until the development of this technique, no other MA instrument valued intangible and tangible assets and non-financial indicators together. This method made it possible to develop a system where financial and non-financial indicators were treated in an equal manner as well as combining short and long-term objectives. Johnson and Kaplan (1987) supports the importance of this new approach by suggesting that the new information era initiated in the nineties made all other techniques obsolete.

Kaplan (1990) explains that the Balance Scorecard organizes the objectives and strategy of an organization under four perspectives:

- ✓ Financial – This perspective is the most conventional one, but according to this method this perspective is not sufficient to guarantee a good management;
- ✓ Customers and Markets – Some of the measurements utilized under this perspective is clients' satisfaction, client retention, acquisition of new clients, market shares and many others;
- ✓ Internal Processes –The aim of this perspective is to identify the processes that create value for the customers and increase satisfaction amongst shareholders. This stage can be fractionated in three phases: Innovation, operation and after-sales services;
- ✓ Growth and Apprenticeship – This growth in experience and knowledge must be done in three main areas of an organization: human capital, internal systems and processes. These three areas facilitate expected sustainable growth in the future.

In the hospitality industry, the non-financial indicators are of extreme importance, as the service given by this industry depends on the good performance of the service and its intellectual capital (Ittner & Larcker, 1998). There are some conflicting results about the use of the Balanced Scorecard in the hospitality industry. On the one hand, there is evidence that Spanish and Portuguese hotels use this technique (Gomes, Arroiteia & Santos, 2011; Urquidi, 2013) and that the Portuguese hotels that use the Balanced Scorecard have usually a strategy of differentiation (Gomes et al., 2011). On the other

hand, Nunes (2009) concluded that 85% of the five-star Portuguese hotels use Balanced Scorecard whereas Faria et al., (2012) concluded that only 4,5% use this technique.

### **2.1.7. USALI – Uniform System of Accounts for the Lodging Industry**

USALI (Uniform system of Accounts for the Lodging Industry) is a uniform accounting system, making the hospitality industry the first to have its own uniform system of accounts. According to this system, hotels develop accounting systems based on departmental accounting principles reflecting the fact that hospitality products and services are produced in departments rather than on production lines (Harris & Brander Brown, 1998).

Originally developed in the U.S., this accounting system has nowadays a dominant influence worldwide. Chin, Barney and Sullivan (1995) support this view by arguing that this is a consequence of the spread of U.S. hotels and the use of hotel management contracts as an expansion strategy.

Many costing and performance measurement systems in the hospitality industry are based on the USALI. In this uniform system of accounts, there is detailed recommendation on how particular transactions should be dealt with in accounting terms (Roy & Payne, 2011). This system establishes standardized formats and accounts classification for the preparation and presentation of financial statements. It represents the first successful organized effort to establish a uniform responsibility accounting system for the hospitality industry and one of the first efforts in any other industry (HANYC, 1996).

Chin et al., (1995) states that USALI is consistent with the principles of responsibility accounting, since only costs that can be directly controlled by departments are allocated to them. Importantly, USALI is flexible in the allocation of the remaining costs, by proposing several allocations bases rather than a single standard one (Popowich, Taylor & Sydor, 1997).



The standardized statements permit internal and external users of financial statements to compare the financial position, operational performance, and cash flow of a property to similar types of properties in the hotel industry. As the USALI follows all these principles, it allows the performance evaluation of departmental managers based on revenues and costs within their control (Popowich et al., 1997).

Critics of USUALI have focused on the need for more accurate cost allocation methods (Schmidgall & Malk, 1992). In fact, this department approach does not facilitate the allocation of a considerable portion of the hotel expenses such as: administrative and general costs, marketing, property operation and maintenance, utility expenses, management fees, rent property taxes and insurance. This costing system has been also criticized for not representing the true market orientation of the hospitality industry (Harris et al., 1998).

## **2.2. Summary**

The success and development that MA methods have reached in the last decades is due to the contribution of several organizations in improving the foundations of the MA existing models and to the revision of these models in specific environments. In fact, MA is not constituted by static or unchanged models since they can be viewed as a compilation of suggestions created from practices in organizations (Davila, 2000).

Various authors have studied MA systems evolution and practices in several countries. Most of these studies revealed that, although many of the “modern” techniques have several benefits, most of the hospitality practices in the MA domain are still based on the “traditional” approach (Faria et al., 2012). Persic et al., (2001) supports this view by revealing that 92% of their sample of Croatian firms still apply such the traditional techniques. Makrigiannakis and Soteriades (2007) also provides evidence in Greece by reporting a high adoption level of traditional MA techniques rather than the more contemporary techniques. Similar evidence was revealed in Portugal by Arroiteia, Gomes and Santos (2014).

These findings do not mean that the most contemporary techniques are irrelevant. In fact, many of these techniques are not adopted by hotels due to the high costs associated

to their implementation and because they do not perceive that the benefits exceed such costs (Fowler 2010). For instance, Nunes (2009) concludes that the main reason justifying why Portuguese hotels do not change their MA is the high costs associated to the process. In order to have a more effective cost and performance measurement system, hotels need to be more experimental with reporting profit centre performance. This would provide a more realistic view of the resources consumed by operating departments and identify which operational areas are vital for managing the financial results of hotels (Potter & Schmidgall, 1999).

There is some inconsistent evidence on different studies addressing management accounting issues in the hospitality industry. There are several reasons justifying this evidence such as cultural issues, economic issues or strategic issues. Several studies argue that the strategy of a hotel influences the type of MA technique adopted. In fact, business strategy has a direct link to the MA techniques as management accounting should always support hotels' strategy. For instance, if the hotel's strategy is the lead by costs, having a cost orientated system becomes fundamental. Yet, if the strategy is differentiation, then the focus is on clients' needs, for which the Balance Scorecard or the Customer Profitability Analysis is more suitable (Acquaah, 2013).

To view the full potential of gaining competitive advantage from these systems, hotel may need to develop enterprise-wide systems ensuring real gains in improving the economics of hotel's operations (Persic et al., 2001). In most cases, tactical room pricing is dominated by marketing, without any significant contribution being made by MA tools (O'Connor, 2003). However, for strategical room pricing, MA techniques are widely used (Mia & Patiar, 2001). Middleton and Clarke (2001) generalizes the application of the MA techniques for strategical pricing for luxury hotels market but there is also some evidence that many low budget and mid-price hotels also use cost information in room pricing.

The scoping study now presented was crucial to understand the key concepts of MA in the hospitality domain. In addition, this initial stage of the systematic review of the literature synthesises a wide range of research documents providing clarity on these issues. Given the variety of management accounting systems found in this scoping study, it is important to restrict the results of this thesis to a more specific issue relating

management accounting and hospitality industry. As such, the systematic review of the literature that follows focus on the connection between MA techniques in the hospitality industry and the use of the USALI. In fact, the USALI's importance is clear from the scoping study above, with its main features summarized as follows:

- ✓ USALI was developed exclusively to the hospitality industry;
- ✓ USALI has a long history and tradition;
- ✓ USALI may be connected to other management accounting techniques;
- ✓ Several cost and performance measurement systems rely on information provided by USALI;
- ✓ USALI contains an analytical accounting model accepted and used in the hospitality industry worldwide.

## **Chapter 3 METHODOLOGY**

This chapter presents the methodology of this thesis: the Systematic Literature Review. The Systematic Literature Review is characterized as a secondary study implying the review of the primary studies related to focus of the study. This methodology aims at integrating and synthesizing the conclusions of the various studies in order to provide the gaps in the literature that may be explored in subsequent studies. This chapter discusses the difference between this approach and the traditional literature review and explains in detail each stage of this systematic review.

### **3.1. Systematic Literature Review vs Traditional Literature Review**

The Traditional Literature Review is characterized mainly by the fact that it does not follow a specific methodology and for being very broad and flexible avoiding any type of protocol for its elaboration (Jesson, Matheson & Lacey, 2011). In contrast, the Systematic Review follows orientation from how the data is collected and analysed, which minimizes the probability of including irrelevant studies in the review or missing out on important scientific contributions (Tranfield, Denyer, & Smart, 2003). According to the Cochrane's Handbook (2009), the main characteristics of a systematic review are:

- ✓ A set of clearly defined objectives and a set of pre-defined eligible criteria for selection of the studies;
- ✓ A clear and reproducible methodology;
- ✓ A systematic search that attempts to identify all studies that may meet the eligible criteria, as defined above;
- ✓ An assessment of the veracity of the results of the eligible studies;
- ✓ A systematic presentation and synthesis of the characteristics and conclusions of the included studies.

Hence, systematic reviews are characterised by being objective, systematic, transparent and replicable. The process aims at identifying studies that address a specific research question. Further, the criteria for inclusion and exclusion articles in the review must be objective, explicitly stated and consistently implemented so that the decision to include or exclude is clear to readers. Similarly, different researchers using the same criteria

should be able to reach the same conclusion. This methodology also allows fellow researchers to update the review on a later stage and integrate new findings (Baumeister 2013). A good systematic review must achieve the following objectives (Baumeister & Leary, 1997; Bem, 1995; Cooper, 2003):

- ✓ Establish to what extent existing research has progressed towards clarifying a research problem;
- ✓ Identify relations, contradictions, gaps, and inconsistencies in the literature, and explore reasons for these (e.g. by proposing a new conceptualisation or theory which accounts for the inconsistency);
- ✓ Formulate general statements or an overarching conceptualization (make a point, rather than summarizing all the points everyone else has made (Sternberg, 1991));
- ✓ Comment on, evaluate, extend, or develop a theory;
- ✓ In doing so provide implications for practice and policy;
- ✓ Describe directions for future research.

A systematic review is therefore a piece of research and, by its nature, can address much broader questions than single empirical studies ever can (e.g. uncovering connections among many empirical findings (Baumeister et al., 1997)).

### **3.2. Description of Systematic Literature Review Process**

This section provides guidance on the all the steps of this SLR and discusses all the stages leading to the selection of the final sample of papers. Following Denyer and Denyer and Tranfield (2009), the SLR should follow five different stages that are summarized in Figure 6.



*Figure 6- Five Stages of a Systematic Review. Adapted from Denyer and Tranfield (2009.)*

### **3.2.1. Scoping**

The SLR starts with the Scoping stage, which can be divided in three phases: choosing the topic that will be explored; scoping of literature on the topic and understanding what has been done before and in what way the researcher might contribute to literature and defining a panel of consultants.

#### **3.2.1.1. Choice of Subject-matter**

The topic selected to conduct this SLR is the use of management accounting systems in the hospitality industry. This topic is both relevant in the accounting area and focus on a specific industry that is growing and may benefit from the use of appropriate information systems to support managers' decision-making process. This selection is crucial since it determine the rest of the review.

#### **3.2.1.2. Scoping Study**

This phase is based on a scoping study focusing on the broad topic of management accounting in the hospitality industry. This is crucial to understand what type of information is available and define the objectives and procedures to conduct a review on a specific topic or even if it might not be possible to conduct the review on the chosen subject. This phase is extremely important, specially to those less experience researchers (Tranfield et al., 2003) and it was presented in the chapter 2 of this master thesis.

#### **3.2.1.3. Panel of Consultants**

Denyer and Tranfield (2009) states that the panel of consultants should be constituted by experienced people in systematic reviews, with academic knowledge and experienced in the area. The panel is defined as follows:

- ✓ Professor Luís Coelho (Supervisor) – President of Delegation of the Algarve of *Ordem dos Economistas*, assistant professor and member of the Center of Studies and Advanced Training in Management and Economics (CEFAGE). He is currently the Director of the Post-Graduation Sector and the director of the Master in Corporate Finance of the Faculty of Economics of the University of Algarve. He holds a Master degree in Management Research from Cranfield

University, and a PhD in Management, a major in Finance and Accounting from the University of Edinburgh. His main research interests are in the areas of business finance, capital markets and accounting, where he has published several scientific articles;

- ✓ Professor Rúben Peixinho (Supervisor) - Assistant professor and member of CEFAGE. He is currently the director of the Master in Accounting at the Faculty of Economics of the University of Algarve. He holds a Master's degree in Management Research from Cranfield University and a PhD in Management with a specialization in Accounting and Finance from the University of Edinburgh. His main research interests are related to accounting and corporate finance where he has published several scientific articles;
- ✓ Dr<sup>a</sup> Andreia Mota (External Consultant) – Parter at Btoc Consulting Algarve with an MBA in International Business from Kristianstand University in Sweden, with previous experience in many areas from being a Junior Auditor at Delloit & Touche, being a Resort Representative at TUI UK, Commercial Analyst at TUI UK, Project manager in Hertz Portugal, Comercial and Marketing Manager in the Algarve Private Hospital, Mortgage Consultant at Money Mais and Auditor at Domingos Barão, José Silva & Daniel Vicente, SROC. Her main interests are competitive analysis, pricing, yield management, revenue management, marketing and tourism.

This panel was essencial in the conclusion of this literature review. It helped in various ways, from validation, counseling and orientation to motivation and guidance of the young researcher.

### **3.2.2. Planning**

This stage can also be devided into three phases: databases used in the paper search, keywords and the creation of search strings.

#### **3.2.2.1. Databases**

This SLR uses two platforms to identify academic papers: the online library of knowledge (B-ON) and the Social Science Research Network (SSRN). Both databases

have relevant articles to this review. B-ON compiles several relevant providers of academic papers published in scientific sources whereas SSRN provides working papers in areas of economics, finance and accounting.

### 3.2.2.2. Keywords

Given that this SLR connects management accounting techniques, hospitality industry and USALI, it is important to identify the keywords that are relevant to find papers that focus on this domain. The keywords are divided in two groups (Management Accounting and Hospitality) to facilitate the understanding of this step and are summarized in Table 2. The definition of the keywords benefited from the scoping study developed in the beginning of this SLR and from the interaction with the panel members.

Management Accounting	Hospitality
<ul style="list-style-type: none"> <li>• Management accounting</li> <li>• Management accounting systems</li> <li>• Costing systems</li> <li>• Decision support</li> <li>• Performance measurement</li> <li>• USALI</li> <li>• ABC</li> <li>• ABM</li> <li>• Budget</li> </ul>	<ul style="list-style-type: none"> <li>• Lodging</li> <li>• Hospitality</li> <li>• Hotels</li> <li>• Hotel Units</li> <li>• Hospitality industry</li> <li>• Hotel industry</li> <li>• Accommodation</li> <li>• Departments</li> <li>• Responsibility centers</li> </ul>

Table 2- Keywords for systematic literature review



### 3.2.2.3. Search Strings

The keywords identified in the previous section are now combined into search strings allowing the identification of relevant studies addressing similar issues to those defined in this SLR. These search strings are summarized in Table 3.

Search Strings	Objective
Management Accounting + Hospitality + USALI	Studies on management accounting in hospitality industry related to the use of USALI
Management Accounting + Hotel + USALI	Studies on management accounting specifically designed to hotels that cover issues on USALI
Hospitality Industry + Accounting + USALI	Studies on hospitality industry covering accounting issues related to USALI
Management Accounting + Lodging + USALI	Studies on management accounting systems in the lodging industry related to the use of USALI
Hospitality + USALI	Studies on the use of USALI in the hospitality industry

*Table 3- Search Strings*

### 3.2.3. Identification

The identification of papers to review systematically is a crucial stage in the SLR and researchers must ensure that this selection process is transparent and replicable. For that to be possible it is necessary to create a list of unbiased inclusion and exclusion criteria allowing to address the research question. This procedure ensures quality and similarity of included studies and define the boundaries of the review (Randolf, 2009).

#### 3.2.3.1. Exclusion and Inclusion criteria

The definition of exclusion criteria aims at ensuring that the final sample of papers are the ones that specifically address the issues defined in the SLR. These exclusion criteria of studies can be summarized as follows:

- ✓ Duplicated articles. Many articles appear more than once, not only because of the two different data bases used but also because the different search strings may identify the same papers;
- ✓ Papers that do not address the specific issue of USALI in the hospitality industry;
- ✓ Papers not published in scientific journals or working papers identified in the SSRN that were not validated by the panel.

Both scientific search engines provide several papers. Since the databases compile several areas of study, the search strings were applied to the “title” and “abstract” of the papers on the databases as many articles may not be directly relevant for the study. Following the definition of the exclusion criteria, it is also necessary to define the inclusion criteria. This ensures that, although a paper may be validated by the first “screen test”, only the relevant ones are part of the final list. The inclusion criteria are defined as follows:

- ✓ The article clearly contributes to literature on the topic being studied;
- ✓ The models and systems used in the studies are explicit and well founded;
- ✓ All variables, parameters and theories are presented in an explicit form;
- ✓ The assumptions in the studies are clearly defined and justified.

#### **3.2.4. Screening**

After the definition of the inclusion and exclusion criteria of the articles, the screening phase is where we put the articles “to the test” to see if they will or not be included in the study. This is achievable by reading all the titles and abstracts in order to understand if each paper encounters the standards defined in the identification phase.

#### **3.2.5. Eligibility**

This phase essentially consists on analysing the papers that “made the cut”. In other words, this is the stage where researchers go from superficially to specificity by reading carefully the full text and not only to the titles and abstracts of the papers. This ensures that all the papers are indeed eligible for the review.

In this stage, a large pool of potential articles can be drastically reduced. The criteria are mainly for ensuring that only high quality relevant work is included. In this case, papers may be classified as not eligible if they: digressed from management accounting systems and costing systems; do not mention any type of MA accounting technique; do not cover one of the characteristics of the hospitality industry.

Greenland and O’Rourke (2001) mention that there is no agreement on the best way of evaluating the quality of the articles. However, most methods encompass issues such as

appropriateness of study for addressing the reviews objective, methods used in the studies, variables and appropriateness of study designs, quality of reporting, and generalizability.

### **3.3. Summary**

This chapter presents a brief discussion on the differences between the Systematic Literature Review and the Traditional Literature review. In addition, it explains and discusses the process through which the SLR was carried out:

- ✓ Scoping Phase – Explanation on the choice of subject, scoping of the literature based on the topic and the formation of a panel of consultants to support the achievement of the SLR;
- ✓ Planning Phase – Choice of databases used to find relevant articles, keywords and search strings used to search for the papers;
- ✓ Identification Phase – Search of the articles to be included in the SLR, creation of inclusion and exclusion criteria to select the articles and the definition of boundaries for the review;
- ✓ Screening Phase – The screening phase is where the articles get analysed to see if they pass or not the criteria defined beforehand;
- ✓ Eligibility Phase – After having the papers that passed the screening phase, the articles are analysed to their full extent, meaning that the full text must pass the inclusion criteria.

## Chapter 4 RESULTS

This chapter presents the results of the application of the methodology explained in the previous chapter. In addition, it provides a brief explanation on the number of studies obtained from the search and the results of the inclusion/exclusion of the articles with the use of the criteria selected earlier. Following this first stage, this chapter systematically reviews the final list of paper focusing in the connection between management accounting, hospitality industry and USALI.

### 4.1. Articles included in SLR

This section describes how the final list of papers was identified and presents some descriptive statistics for the final sample.

#### 4.1.1. Search Results

Table 4 presents the results of the application of the search terms defined previously. This search was applied to the title and abstracts of the papers listed in the B-on and SSRN. A relevant number of paper related to the connection between management accounting, hospitality industry and USALI was found.

Search Strings	B-on	SSRN	Total
Management Accounting + Hospitality + USALI	34	1	35
Management Accounting + Hotel + USALI	46	1	47
Hospitality Industry + Accounting + USALI	35	1	36
Management Accounting + Lodging + USALI	29	2	31
Hospitality + USALI	19	1	20

*Table 4- Search Results*

As shown on Table 4, the platforms provide a total of 169 eligible articles. All these papers focus their attention on the USALI in the hospitality industry since this is the most important keyword allowing the systematic review to be specific and not covering the broad issue of management accounting.

## 4.1.2. Application of Exclusion and Inclusion Criteria

The combination of both scientific search engines and different search strings provides a vast number of papers. However, it is necessary to apply the exclusion and inclusion criteria defined in the previous chapter to guarantee that the final list of papers are the relevant ones to this discussion.

### 4.1.2.1. Application of the Exclusion Criteria

The application of the first exclusion criteria based on duplications, eliminates a high number of papers given the use of different databases and search strings. Additionally, some papers were removed because they did not focus on the USALI or they do not focus specifically on the hospitality industry. Finally, papers that were not published in academic journals were also removed to ensure the quality of the documents that were revised in the last part of the SLR. After applying these exclusion criteria, the initial list of 169 papers decreased to 36, all of which are identified in Table 5.

Authors	Study	Scientific Journal	Sample Location
Arroteia et al. (2012)	The relationship between the management accounting techniques and the decision making in Portuguese hotels	Proceedings Book of 6th International Tourism Congress	Portugal
Arroteia et al. (2014)	The influence of the environmental and organizational factors in the management accounting of the Portuguese hotels.	Actas del VII Congreso Iberoamericano de Contabilidad de Gestión	Portugal
Assaf et al. (2012)	Does Triple Bottom Line reporting improve hotel performance	International Journal of Hospitality Management	USA
Atkinson et al. (2001)	Rethinking Performance Measures: Assessing Progress in UK Hotels	International Journal of Contemporary Hospitality Management	UK
Briciu Sorin (1918)	The Relevance of Management Accounting for the Hospitality Industry	Annals of Faculty of Economics, University of Oradea, Faculty of Economics, vol. 1	USA
Burgess & Cathy (2012)	Multiple stakeholders and middle managers: the role of the hotel financial controller.	The Service Industries Journal	UK
Cruz et al. (2011)	The localisation of a global management control system.	Accounting, Organization and Society 36 (2011)	Portugal
Faria et al. (2012)	Práticas de Custeio e Controlo de Gestão no Sector Hoteleiro do Algarve	TMSStudies [online]. 2012	Portugal
Georgiev et al. (2015)	Establishing a System of Income Multiplier Profiles in the Lodging Industry	Dialogue (1311-9206). 2015, Issue 1	Bulgary
Harris & Brown (1998)	Research and Development in Hospitality Accounting and Financial Management	International Journal of Hospitality Management	N/A
Hua et al. (2015)	The other side of technology adoption: Examining the relationships between e-commerce expenses and hotel performance.	Handbooks of Management Accounting Research 2:831-858 · December 2006	USA
Ivanković et al. (2010)	The Use of Decision Making Information: A Comparative Exploratory Study of Slovene Hotels	Managing Global Transitions International Research Journal	Slovene
Johnson & Kapla (1987)	The Rise and Fall of Management Accounting	AI/INFORM Global	USA

Authors	Study	Scientific Journal	Sample Location
Karadag et al. (2006)	Comparing Market- segment-profitability Analysis with Department- Profitability Analysis as Hotel Marketing- decision Tools.	Cornell Hospitality Quarterly Volume 47 Issue 2	USA
Kosarkoska & Mircheska (2012)	The main process in the international financial reporting at the beginning of 21st century	Procedia- Social and Behavioural Sciences	Macedonia
Kosarkoska & Mircheska (2012)	Uniform System of Accounts in the Lodging Industry (USALI) in creating a Responsibility Accounting in the Hotel Enterprises	Procedia- Social and Behavioural Sciences	Macedonia
Kwansa et al. (1999)	The Uniform System of Accounts for the Lodging Industry: its importance and Use by Hotel Managers	Cornell Hotel and Restaurant Administration Quarterly	USA
Lakshmi (2011)	Role of CMAs in adapting Contemporary Techniques in Hospitality Management	The Management Accountant	USA
Makrigiannakis & Soteriades (2007)	Management Accounting in the Hotel Business	International Journal of Hospitality & Tourism Administration	Greece
Nadolny & Stacey (2016)	U.S. Hotel Development Cost Survey 2015/16.	Hotel Online	USA
Ni et al. (2012)	Enhancing the Applicability of Hotel Uniform Accounting in Hong Kong.	Asia Pacific journal of tourism research	Hong Kong
Nunes (2009)	O Controlo de Gestão na Hotelaria Portuguesa	Lisboa: ISCTE, 2009. Tese de mestrado. [Consult. 24 Outubro 2016] Disponível em <a href="http://hdl.handle.net/10071/2014">www:&lt;http://hdl.handle.net/10071/2014&gt;</a> .	Portugal
Pajrok (2014)	Application of target costing in the hospitality Industry	Journal of Education Culture and Society, Volume 2014	Hungary
Pajrok (2014)	Responsible Accounting in the Hospitality Industry	Journal of Education Culture and Society, Volume 2014	Hungary
Patiar (2016)	Cost allocation practices: Evidence of hotels in Australia	Journal of Hospitality and Tourism Management 26	Australia
Pavlatos & Paggios (2007)	Cost accounting in Greek Hotel enterprises: an empirical approach.	Tourism: An International Multidisciplinary Refereed Journal of Tourism	Greece
Pavlatos (2011)	The Impact of Strategic Management Accounting and Cost Structure on ABC Systems in Hotels	Journal of Hospitality Financial Management	Greece
Pavlatos et al. (2009)	A survey of factors influencing the cost system design in hotels.	International Journal of Hospitality Management	Greece
Persic et al. (2001)	Management Accounting Systems and Hotel Enterprise Competitiveness	Enterprise in Transition: International Conference Proceedings	Croatia
Persic et al. (2012)	The Assessment of Opportunities and Assumptions of the Croatian Health Tourism Development	Journal of Business Management	Croatia
Planas & Banchieri (2016)	Study about Homogeneity Implementing USALI in the Hospitality Business	Cuadernos de Turismo, nº37, (2016)	Spain
Roy & Pyne (2011)	Managerial Accounting in the Hospitality Industry— An Overview	The Management Accountant	India
Schmidgall et al. (1992)	"Understanding Overheading"	Lodging	N/A
Sharma (2002)	The Differential Effect of Environmental Dimensionality, Size and Structure on Budget Systems Characteristics in Hotels	Management Accounting Research	N/A
Uriquidi (2013)	The Choice of Management Accounting Techniques in the Hotel Sector: The Role of Contextual Factors	Journal of Management Research	Spain
Uyar & Bilgin (2011)	Budgeting Practices in the Turkish Hospitality	International Journal of Hospitality Management	Turkey

Table 5- Eligible articles for SLR after applying exclusion Criteria

#### 4.1.2.2. Application of Inclusion Criteria

Next we apply the inclusion criteria mentioned above. That entailed reading the full text of 36 papers identified previously and assess whether they contribute or not to the topic of the systematic review. Moreover, this phase also is designed to ensure that the final papers present a clear contribution to the literature, are based on theoretically-sound models and have robust empirical results. In the end, this step eliminates 17 papers. In addition, it was decided to include an additional paper based on cross references since it was considered relevant by the panel of consultants, despite not being identified during the search process. The paper added is Popowich et al., (1997), “Uniform System of Accounts for the Lodging Industry: Are you up to Date? The Bottom line”.

After this procedure, the final list of papers that are systematically reviewed in this thesis contains 20 papers. Table 6 identifies these 20 papers and presents the data used, the sample and the main findings.

Authors	Data	Scientific Journal	Sample Location	Main Findings
Arroteia et al. (2012)	The relationship between the management accounting techniques and the decision making in Portuguese hotels	Proceedings Book of 6th International Tourism Congress	Portugal	Not all the MA techniques are chosen based on their utility but based on the personal opinion and preference of hotel managers.
Atkinson et al. (2001)	Rethinking Performance Measures: Assessing Progress in UK Hotels	International Journal of Contemporary Hospitality Management	UK	The USALI or another MA System will only ever be successful if managers use the information to make decisions.
Faria et al. (2012)	Práticas de Custeio e Controlo de Gestão no Sector Hoteleiro do Algarve	TMSStudies [online]. 2012	Portugal	The hotels units in Portugal, more specifically in the Algarve, affiliated to international hotel chains registered a higher adoption of the USALI (66,7%).
Harris & Brown (1998)	Research and Development in Hospitality Accounting and Financial Management	International Journal of Hospitality Management	N/A	The USALI has been criticized for not representing the true market orientation of the hospitality industry, meaning the system is not directly linked to client satisfaction rates.
Johnson & Kapla (1987)	The Rise and Fall of Management Accounting	AI/INFORM Global	USA	Ma systems had to evolve as most of the traditional systems were directed mainly only to focus on direct costs of the processes, which meant that the information would be mostly irrelevant in today's markets.

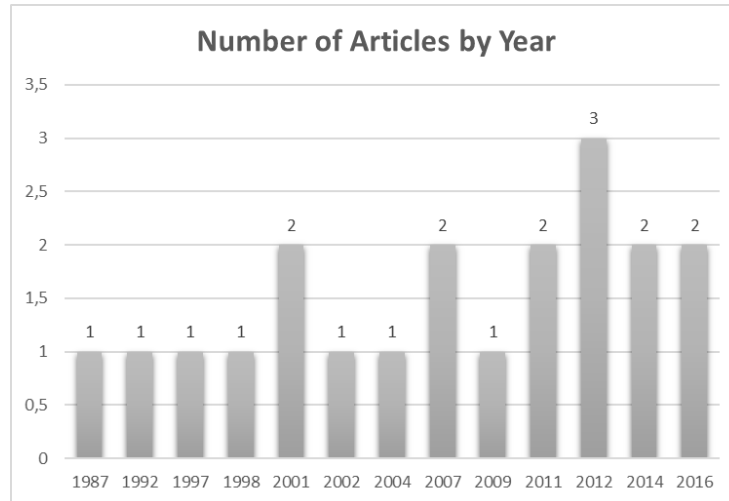
Authors	Data	Scientific Journal	Sample Location	Main Findings
Kosarkoska & Mircheska (2012)	The main process in the international financial reporting at the beginning of 21st century	Procedia-Social and Behavioural Sciences	Macedonia	USALI has to evolve considering it is the most use system in the hospitality industry, the areas which are important for this system to evolve is mainly in the indirect cost allocation.
Kosarkoska & Mircheska (2012)	Uniform System of Accounts in the Lodging Industry (USALI) in creating a Responsibility Accounting in the Hotel Enterprises	Procedia -Social and Behavioural Sciences	Macedonia	In the hotel industry in R. Macedonia the old management principles are still used and Kosarkoska & Mircheska concluded that they do not use the USALI as 75% of them didn't even know it existed.
Makrigiannakis & Soteriades (2007)	Management Accounting in the Hotel Business	International Journal of Hospitality & Tourism Administration	Greece	Although the existence of many MA techniques in the hospitality industry, like the USALI, it is very clear that many hotels favour traditional techniques and ones that do not account the time value of money, thus questioning the accuracy of the supplied information.
Nunes (2009)	O Controlo de Gestão na Hotelaria Portuguesa	Lisboa: ISCTE, 2009. Tese de mestrado. [Consult. 24 Outubro 2016] Disponível em <a href="http://hdl.handle.net/10071/2014">www:&lt;http://hdl.handle.net/10071/2014&gt;</a> .	Portugal	In some cases the most contemporary methods aren't applied due to high costs of implementation of new software's, conservatism of directors and lastly the satisfaction with the systems already in function.
Pajrok (2014)	Application of target costing in the hospitality Industry	Journal of Education Culture and Society, Volume 2014	Hungary	Target costing was shown to be a reliable method for managing and reducing costs, most hotels don't have a very sophisticated system implemented, being that most hotel units use only budgeting as their main tool and a limited amount applied the USALI.
Pajrok (2014)	Responsible Accounting in the Hospitality Industry	Journal of Education Culture and Society 2014 (2)	Croatia	The USALI was found to be implemented in different degrees in various hotel units. According to this survey it was possible to identify the level of implementation of the USALI in these units, being that 40% had completely implemented. 29% partially implemented ad 20% of the hotels question answered it was to be implemented.
Patiar (2016)	Cost allocation practices: Evidence of hotels in Australia	Journal of Hospitality and Tourism Management 26	Australia	Patiar concluded that the 11th edition of the USALI handbook did not support managers on managing accurate cost figures, as the USALI tends to have high level of aggregation of the information and is mostly used in decision making processes, this lack of accurate information tends to make it difficult to make important future decisions.
Pavlatos & Paggios (2007)	Cost accounting in Greek Hotel enterprises: an empirical approach.	Tourismos: An International Multidisciplinary Refereed Journal of Tourism	Greece	Pavlatos & Paggios in the Greek hospitality industry concluded that only 11,8% of the 85 hotels used USALI. These results were also divided being that 53,3% of the hotels that used the USALI were part of multinational hotel chains and only 2,9% belong to national hotel chains, being the most common characteristic for hotel to implement the USALI was being part of an international hotel chain.
Persic et al. (2001)	Management Accounting Systems and Hotel Enterprise Competitiveness	Enterprise in Transition: International Conference Proceedings	Croatia	MA systems in Croatian hotels are mainly in the second stage of development meaning they are financial reporting driven. Not many had the USALI implemented due to costs or lack of knowledge.
Planas & Banchieri (2016)	Study about Homogeneity Implementing USALI in the Hospitality Business	Cuadernos de Turismo, nº37, (2016)	Spain	The results show a significant heterogeneity in the implementation of USALI.
Popowich et al. (1997)	Uniform System of Accounts for the Lodging Industry: Are you up to Date? The Bottom line	Bottomline 1997 Vol.12	N/A	The standardization of the USALI allows internal and external users of the financial statements to compare the financial position, operational performance, and cash flow of a property and compare it to other properties of the unit or of the hotel industry with similar characteristics.
Roy & Pyne (2011)	Managerial Accounting in the Hospitality Industry— An Overview	The Management Accountant	India	Many other costs systems designed and performance management systems that are implemented in the hospitality industry where based on the USALI. In this uniform system of accounts there is detailed recommendation on how particular transactions should be dealt with in accounting terms.
Schmidgall et al. (1992)	"Understanding Overheading"	Lodging	N/A	USUALI main disadvantage is the need for more accurate cost allocation methods.
Sharma (2002)	The Differential Effect of Environmental Dimensionality, Size and Structure on Budget Systems Characteristics in Hotels	Management Accounting Research	N/A	Sharma concluded budgets still constitute the principal means for performance measurement and for the calculation of management bonuses in the hospitality industry.
Uyar & Bilgin (2011)	Budgeting Practices in the Turkish Hospitality	International Journal of Hospitality Management	Turkey	Budgeting is the primary MA method used, budget preparation and analysis of the deviation are the primary performance indicators in this sector. Only a limited amount of managers knew about the USALI but did not apply them.

Table 6 - Articles included in the SLR



### 4.1.3. Statistics of Articles

Graphic 1 presents the statistics about the number of papers published by year for the final sample of 20 papers included in the systematic literature review.



*Graphic 1 - Number of Articles by year*

Graphic 1 shows that the connection between management accounting, hospitality industry and USALI increased from the start of the 21<sup>st</sup> century. In fact, there is only 4 papers published before 2000 and the remaining 16 were published after 2000. This recent interest in these issues may be related to the importance of the services industry and the growing importance of tourism industry in a significant number of countries worldwide.

## **4.2. Report of the Findings**

This section reviews systematically the 20 papers of the final list. It is structured by topic in order to facilitate the understanding of the reader.

### **4.2.1. USALI Background**

Uniform System of Accounts for the Lodging Industry (USALI) was originally designed in the U.S. and is the only system specifically designed for the hotel industry. The USALI has a long background since it was designed by the Hotel Association of New York City Inc. to establish a uniform system of accounts for its members. The 1<sup>st</sup> edition of the manual was published in the year of 1926, being at that time designated as the Uniform System of Accounts for Hotels.

The committee that created the manual and that gave continuity to the work was the embryo for the founding of the Hospitality Financial and Technology Professionals. Later, in 1961, the American Hotel & Lodging Association requested the National Association of Accountants to develop an accounting system for small hotels and motels to meet the needs of other members.

In 1979 and 1986, the associates Committee of the American Hotel & Lodging Association reviewed the original uniform bread system for small hotels and motels. At a later stage, in 1996, an agreement was reached to combine the two existing uniform systems of accounts in a single publication, having been designated as USALI (Uniform System of Accounts for the lodging Industry).

Currently, the USALI is on its eleventh edition that was written in 2006. The USALI is periodically revised to reflect changes in the hospitality industry practices and to address new issues that arise in the industry. Although it is periodically revised, it maintains its basic principles and original concept, based on traditional cost orientated accounting methods (Harris & Brown, 1998). Recently, Planas and Banchieri (2016) stated that the USALI seeks to set up an internal process of determining results formalized in general income statement and a series of complementary analytical documents that calculate results for each of the centers operational activities.

#### 4.2.2. USALI Structure

Planas and Banchieri (2016) argues that, back in 1926, the creation of the USALI had two main objectives:

- ✓ To be an adaptable accounting method that would be easily adapted to any hotel regardless of size or category, and useful for a range of diverse users both internal and external;
- ✓ Uniformity and standardisation of its structure enables hotels and hotel chains to compare between each other, even if they operate in different economies.

Over the last decade, the USALI has become the industry standard uniform system of accounts, especially in large hotel groups and in hotel chains. This sectorial plan contains an analytical accounting model widely tested, recognized and used worldwide (Lamelas, 2004). The USALI has been constantly updated every 5 to 10 years and it is currently on its 11<sup>th</sup> edition. The handbook is divided in four parts:

- ✓ Part 1- Presents the format and explains the items that appear on each financial statement produced for external users (shareholders, employees, financial institutions, the state, suppliers, customers and general public). The financial statements include a Balance Sheet, a Statement of Income, a Statement of owners' Equity and a Statement of Cash Flows. Although these statements have formats in which they should be presented, they are flexible, so they can still meet the needs of the users but always in accordance with the U.S. Generally Accepted Accounting Principles (GAAP);
- ✓ Part 2 – Is considered the most relevant and used chapter of the uniform system. This second part explains how to prepare hotel management accounting information directly related to each operational department of a hotel unit. The information of these operational departments appears on the Summary Operational Statement and its supporting schedules. The USALI defines the format for these statements and their respective headings and sub-headings and describes them in detail. The explanation for this chapter to be the most consulted one by financial managers in the hotel industry is the fact that The Summary Operational Statement is not based on the GAAP or any other

accounting standards. Alternatively, it is based on specific principles defined by the USALI that were created based on terms and concepts used in the hotel industry, making it very adaptive to any type of property;

- ✓ Part 3 - Is dedicated to financial and statistical analysis and presents a series of ratios and other useful information for the analysis of financial information and Operational Demonstrations defined by the uniform system;
- ✓ Part 4 – Is an Expense Dictionary that consists of a compilation of the numerous expense items encountered in daily work in the lodging industry. This dictionary was designed to help members of the lodging industry classify in accordance with the USALI their expenses.

In an empirical study addressing the USALI structure, Lamelas (2004) concludes that the second part of the USALI handbook was the most relevant for the Portuguese hospitality industry. In fact, financial managers mainly use the USALI to format their management accounting systems in parallel to the required financial accounting system. The connection between the management accounting and the financial accounting information was based on the USALI standards.

#### **4.2.3. USALI and Responsibility Accounting**

Popowich et al., (1997) explains that the standardization of this uniform system of accounts allows internal and external users of the financial statements to compare the financial position, operational performance, and cash flow of a property. Additionally, it allows the comparison with other properties of the unit or of the hotel industry with similar characteristics. In addition to comparability, the USALI provides a highly departmentalized system of accounts that is relevant to the decision-making process. This is achieved by the two main classifications in the USALI: operating/ revenue departments (rooms, food and beverage, and similar) and overhead departments (Administrative and general, human resources, marketing, energy costs, maintenance) (Kosarkoska & Mircheska, 2012).

This departmentalization of a hotel unit and the obligation to prepare detailed financial statements according to the hotels business units shows that the USALI is based on responsibility accounting. This means that each manager is responsible for revenues and costs of their department if these are controllable by them (Pajrok, 2014). Responsibility accounting, as explained previously, is the system through which authority is given to specified personnel. The person to whom this authority is attributed to is then held accountable for attaining planned objectives, the action of responsible for conceiving and executing the company's planning and control functions (Clifford, Rhoads, Richard & Rosenblatt, 1981).

This responsibility accounting system is based on the detailed information provided by the USALI, which facilitates the understanding of departments' outcomes and organizational structure. The USALI distinguishes 32 separate business units into cost centers (Pajrok, 2014). According to Kosarkoska and Mircheska (2012), the USALI is a very complete system, as these department statements can vary from garage and parking, golf shops, guest laundry, health centers, swimming pool, tennis, security, management fees, rent, property taxes and insurance, wages and payroll taxes and employee benefits. Planas and Banchieri (2016) argues that the information provided by the USALI may be also used to increase competition for results within the same departments of different hotels in the same hotel chain allowing higher levels of profitability.

One of the most distinctive characteristics of the USALI, and probably the most attractive characteristic for managers in this industry, is this department approach allowing the reporting on a department basis (Harris & Brown, 1998). This highlights the fact that, contrary to manufacturing industries, the housing, food and beverages and other services are not produced in assembly lines. The departments can be identified through information from head management and by homogeneity on revenues and costs (revenue / results centers), or only costs (cost centers) as described in Figure 7.

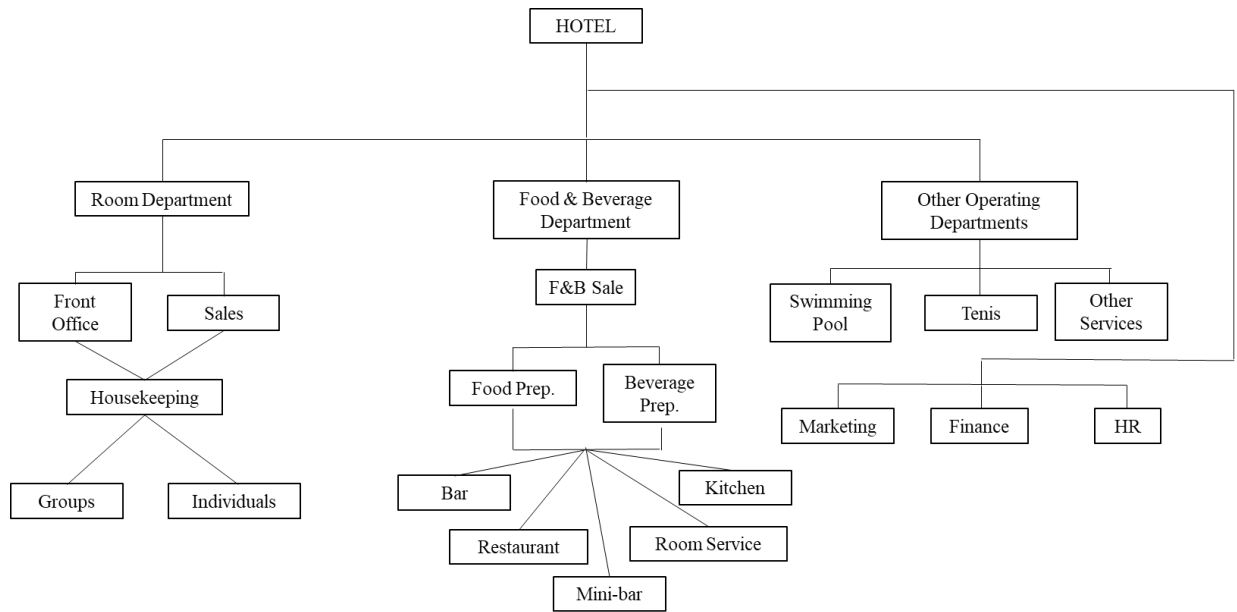


Figure 7 - Adapted from Pajrok 2014, Model of Hotel Structure as an Investment Center.

Departmental managers must have an insight on the expenses and revenues that are within their competence and are directly allocated to their department. To be in accordance with the fundamental principle of responsibility accounting, Garrison and Noreen (1997) states that costs are assigned to various hierarchical levels of management which oversee their control, and that can be accounted responsible for divergencies of costs between what was budgeted and realized.

Patiar (2016) suggests that the USALI tends to have a high level of aggregation of the information and is mostly used for decision-making processes in the Australian hospitality industry. However, this high level of concentration leads to lack of accurate information that jeopardises the decision-making process and encourages the decisions to be made on “What ifs”. Patiar (2016) suggests that managers make up scenarios to overcome the uncertainty that in the long run can result in incorrect decisions. This paper also concludes that this situation happened in large luxury hotels in Australian since most of these belong to international hotel management companies.

The hospitality industry is facing a significant increase in competitiveness. Hotels have now a wider range of products and services offered to customers requiring additional support, leading to an increase in indirect costs (Horngreen, Datar, Rajan, Wynder,

Macguire & Tan., 2014). Other consequence of this higher competitive environment is that the indirect costs also rise dramatically due to the development of technologies (Enz, Potter & Siguaw, 1999).

In fact, the increase of these indirect costs cannot be solved by reducing hotels' offers to clients as this is crucial to attract different segments and to maximize the capacity of the lodging unit. In addition, hotels should focus their attention on the indirect costs since each food and beverage outlet and other outlets significantly differ in terms of style from cuisine, menu, atmosphere, level of service and prices charged, volumes of sales generated, cost structures and market mix. All these distinctive variations and types of costs highlights that it is essential to allocate not only direct cost but also indirect costs to the departments of the units (Patiar, 2016). This new reality suggests that hotels should undertake a careful re-evaluation of their costing systems (Horngreen et al., 2014) and that they have to update their costing systems and maximize their effectiveness and efficiency in the market.

#### **4.2.4. USALI and Profitability Measurement**

Figure 8 presents the various levels of a responsibility centers in the Hotel Structure. The first level is the investment centre, the hotel unit itself. The second level relates to the Profit Centre, which aims at bringing revenues and is represented by the activities that operate directly in the external market. The Revenue Department and Cost Centre are normally controllable by the managers of the profit centres. The combination of these two dimensions allow the computation of the Gross Operating Income (GOI). The third pool of costs found on figure 8 are not significantly influenceable by the manager.

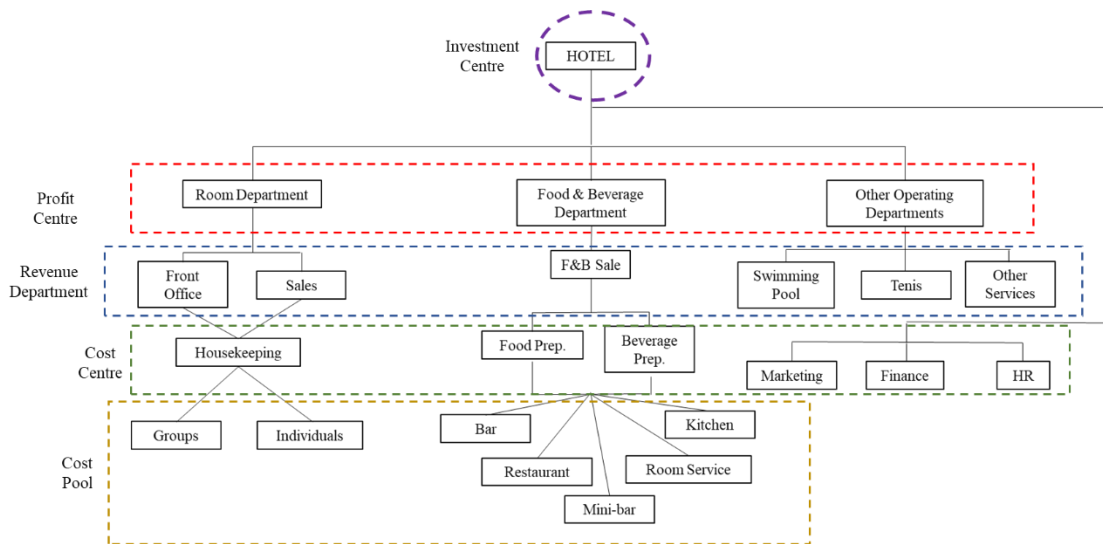


Figure 8 - Hotel Structure as an Investment Centre - Responsibility Centres of a Hotel (Adapted from American Hotel and Lodging Educational Institute, 2014)

In order to ensure accounts uniformity, which is important for the comparability of operating units, the profit center income is computed by subtracting from the revenues only a limited number of expenses that are traceable to each department. This method is also useful to make managers responsible for the consumption of resources leading to cost occurrence and monitorization of costs that will be assigned to their department (Persic et al., 2001).

The creation of the USALI was based on the assumption that the hospitality industry is a combination of: variable costs, which are flexible during the change of level of capacity and by the department managers and of fixed costs, which are normally unchangeable in the short-term. Although the inflexibility of fixed costs in the short-term, one cannot discourage the fact that higher level of capacity dilutes the fixed costs over a larger number of products or services. This highlights that managers should not only be aware of their variable costs but also of their fixed costs.



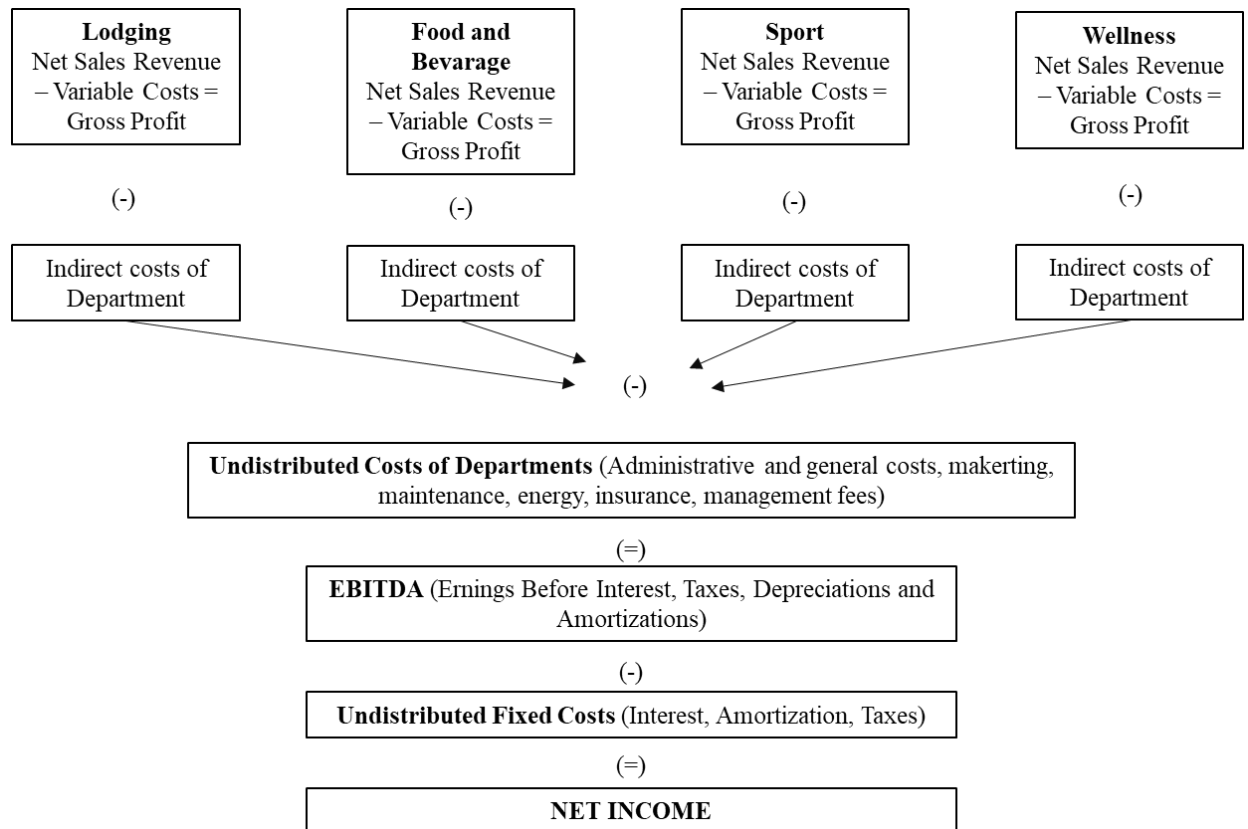


Figure 9- Calculation of Net Income according to USALI (Adapted from Padjok, 2014)

Figure 9 shows how the calculation of the net income is made according to the USALI (Pajrok, 2014). As can be seen, the USALI handbook suggests that only the direct department costs are deducted from the departmental revenues to calculate the Gross Profit of each department. Figure 9 also shows that, the other undistributed operating expenses include administrative and general costs, marketing, property operation and maintenance, and utility expenses, combined with the fixed costs, rent, property taxes and amortizations. These costs represent a great portion of the total expenses that are not distributed to the departments (Persic et al., 2001).

Although these costs are not distributed to the departments, it is important to keep them in mind for business decisions, including departmental profitability determination, pricing, staffing, outsourcing, expansion, and renovation decisions. The undistributed cost assignment, however, should be supplementary to the presentation of the departmental results after they have been stated in accordance with the USALI (American Hotel and Lodging Educational Institute, 2014).

This way of calculating department costs, avoiding the allocation of fixed costs to their departments, has been criticized by many along the years, as without these it is hard to comprehend the real cost of a department. For this reason, the previous edition of the USALI had a section which contemplated whether to input these fixed costs to their cost centers, in order to have a more comprehensive view on department costs. However, the allocation exclusively based on direct costs ensures the alignment with the theory of responsibility accounting.

It is important that managers better comprehend the impact of their decisions on their departments but also on the hotel unit as one unique entity. This can be achieved if the hospitality industry starts using reporting profit centers performances that provide a more realistic view of the resources consumed by the operating departments and allocating undistributed operating costs to each of the operating departments. In other words, this would imply that the statements would represent the profit before income tax expenses by profit centers (EBIT by profit centers), making managers fully aware of the dimension of costs that imply the operation of each profit center.

It seems clear that some papers are questioning the fact that the USALI allocates only direct costs to the hotel departments, raising serious doubts about the performance measurement at the department level. This seems particularly important nowadays given the effects of the intense globalization and the competition in the hospitality industry. Pajrok (2014) suggests that the USALI should expand its view and integrate an ABC system in their structure. The ABC method uses cause-effect associations between activities and indirect cost that could minimize the critics to the USALI. In addition, the ABC method could be used to show whether management is serving its customers and whether they could improve such service.

#### **4.2.5. USALI Advantages**

The analysis of the literature focusing on the structure of the USALI allows the identification of several advantages that can be summarized as follows:

- ✓ Uniformity in the financial statements, division of departments and uniform system of codes for the classification of revenues and expenses;
- ✓ Comparability of the statements from unit to unit of a group or other units in the hospitality industry without any influence of geographical localization or dimension;
- ✓ Flexibility and adaptability to the types of hotels and their necessities. If the unit has a good existing financial accounting system, it is only necessary to adapt the existing system to the uniform codes of the USALI;
- ✓ Because the USALI follows a responsibility accounting approach, it is easier to evaluate the performance of each departments and hold its managers responsible for its outcome. The allocation of revenues and costs exclusively based on the numbers that can be directly traced back and controlled by department facilitates the responsibility center approach;
- ✓ The division of the information by departments makes it easier to analyse if each department is sticking to its budget or not and calculate various statistics to evaluate if objectives were reached or in which areas the managers need to place more attention.

#### **4.2.6. USALI Disadvantages**

The USALI assumes that hotels should be organized by departments and use a responsibility accounting approach. This view raises some questions regarding the exclusive allocation of direct costs to departments leaving the indirect costs apportioned to the hotel total income. In addition, there are currently contemporary approaches in the costing determination that uncovers some limitations of the USALI. The disadvantages of the USALI may be summarized as follows:

- ✓ The fact that it fails to assist managers in identifying the exact expense of an operating department, determining precise product and service prices and achieving profitability (Patiar, 2016);
- ✓ The difficulty in segregating the income between commercial packages offered, as business conferences, which is imputed a share to rooms, to food and beverage, because of room rental and coffee break, etc (Planas & Banchieri, 2016);

- ✓ Managers without a full comprehension of the department's expense might take wrong decisions whether to retain or outsource certain products and services (Enz et al., 1999);
- ✓ In competitive markets, the prices for products and services are given by the market, leading the correct computation of department costs a crucial task to assess profitability (Mia & Patiar, 2001);
- ✓ The non-correct cost of department might result in offering less profitable products or services to clients (Patiar, 2016);
- ✓ In those cases where the USALI is unable to estimate precise department costs, may lead to inaccurate selling prices for certain products and services. This may have long-term implications such as loss of opportunities and competitive advantage in the hospitality industry (Cooper & Kaplan, 1997);
- ✓ Despite the existence of contemporary accounting methods that potentially minimizes the problems with the traditional costing approach (ABC system), the latest 11<sup>th</sup> edition of the USALI, revised in 2014, remains with the costing traditional approach and associated limitations.

#### **4.2.7. The use of the USALI in the hospitality industry**

The use of the USALI in the hospitality industry has been investigated worldwide. Not surprisingly, the literature shows that the degree of implementation is higher in the U.S., where the USALI was originally created. Kwanza and Schmidgall (1999) reports that 76% of the U.S. hotels questioned (out of 112 hotels) had the system implemented, although 12% of the respondents didn't have any knowledge about the USALI. In addition, the same questioner shows that 88% of the U.S. managers were familiar with the existence of the USALI, 78% confirmed that they were using the uniform system of accounts but only 12% had the full system implemented. Kwanza and Schmidgall (1999) also reveal that U.S. managers highlight as strengths of the system: normalization, uniformity, comparability and consistency.

There is evidence that, outside the U.S., the use of the USALI in the hospitality industry is not as high in comparison to the U.S. For instance, Pavlatos and Paggios (2007) shows that only 11,8% of the 85 Greek hotels in their sample used USALI whereas Kosarkoska and Mircheska (2012) reports that 75% of the respondents in Macedonia

don't even know the existence of the USALI. In Portugal, Faria et al., (2012) reported that in region of the Algarve hotels affiliated to international hotel chains had a higher adoption of the USALI, 66,7%, on the other hand on a national level, Arroiteia, Gomes and Santos (2012) concluded that only 43% of hotels in the industry applied the USALI.

The literature also shows that the use of the USALI depends on the national or international category of the hotel chain. For instance, Planas (2004) shows that the implementation of the USALI in the Spanish hotels was 100% in international hotels and only 50% in the national hotels. One of the reasons for this evidence is that the international hotels usually have a higher quantity and variety of departments than the national hotels. Pavlatos and Paggios (2007) also show that most of the Greek hotels that use USALI are part of an international hotel chain. In fact, 53,3% of respondents that use the USALI belong to international hotel chains in comparison to only 2,9% for hotels belonging to Greek hotel chains. Ni, Chan and Wong (2012) report similar evidence for the hotels based in Hong Kong, where 3 out of 5 hotels using USALI were part of international chains that need to follow this system. The remaining cases only implemented partially or had their own financial managers drawn an accounting system made to satisfy their needs.

Pajrok (2014) uses a survey to investigate the use of USALI in the hospitality industry in Croatia. His sample represents 41,5% of all hotel properties in Croatia, where 70% were big hotel companies and 25% medium-size companies. The results of the survey show that 40% of the respondents had the USALI completely implemented, 29% partially implemented and 20% of the hotels answered that they were planning to implement the USALI. Some of the main reasons for the lack of implementation or the incomplete implementation of the USALI in Croatia were:

- ✓ 45% the lack of permanently present IT and permanent management education;
- ✓ 34% intimidation of managers losing control over information and the absence of quality and transparent information;
- ✓ 23% survival of the company and privatizations are priority during the period of recession.

#### **4.2.8. Summary**

This chapter reports the findings by systematically reviewing the 20 papers related to MA that specifically address the USALI in the hospitality industry. The results may be summarized as follows:

- ✓ The USALI has a long history and is periodically revised in order to improve its value to hotel managers;
- ✓ The literature addressing the USALI is not vast and the papers usually use questioners to collect the relevant data;
- ✓ The USALI uses a responsibility accounting approach by allocating only the direct costs to departments. This method facilitates the control of managers' actions but compromises the measurement of profitability;
- ✓ The USALI is considered a flexible and adaptable system that facilitates comparability and the control of operations;
- ✓ The exclusion of indirect costs in the computation of profitability at the department level is criticised and there are some alternatives that may be used to minimize such problems;
- ✓ The USALI is used worldwide in the hospitality industry and it is one of the most important techniques in hotel's MA;
- ✓ Only a limited number of hotels implement the full structure of the USALI;
- ✓ The implementation of the USALI is higher when the hotel belongs to an international chain.

The discussion provided in this chapter and the summary of the main findings aims at providing a comprehensive knowledge on this issue and facilitate the identification of research gaps that may be empirically explored in further investigations.

## **Chapter 5 CONCLUSIONS**

This chapter presents the conclusions of this SLR. Firstly, my personal reflections on the study are discussed. The second section presents suggestions that researchers on this domain may use to produce empirical evidence. The last section summarizes the main limitations of this review.

### **5.1. Personal Reflections**

This section presents my personal reflections on the application SLR, providing some guidance for those wish to apply this method in the future. I would like to start by stressing that this research methodology is particularly interesting, being clearly distinct from the traditional literature review. In fact, I would to point out that:

- ✓ The use of SLR requires some degree of knowledge about the central research topic. Thus, it requires a preliminary exploratory study to be done to help define concepts and to consolidate and to deepen the knowledge in the field of research. However, this preliminary work may not be enough and that is why it is crucial to use a panel of consultants;
- ✓ One of the critical points of this methodology is the definition of search terms. It is wise to spend time on this stage, namely choosing keywords and search sequences that are suitable and adequate;
- ✓ The definition of a set of exclusion and inclusion criteria for the analysis of the title and abstract of the articles initially found is extremely important. This step helps reducing the volume of literature that needs to be evaluated with the qualitative selection criteria. However, it is important to emphasize that all criteria must be well-founded to avoid the exclusion of relevant literature to the study;
- ✓ SLR has many advantages over traditional literature review. Yet, the researcher must develop skills in specific areas such as managing literature databases, be ready to make important decisions, and - very importantly - be aware that this methodology has some limitations. These range from the practical inability to discover all the relevant contributions and the fact that some degree of personal influence will always affect the review's outcome. Nevertheless, I am convinced that the correct use of this methodology allows the identification of

potential gaps in the literature, which can be employed to define future research questions.

## **5.2. Future Investigations**

Given the results above, the research gaps that seem to be more relevant can be summarized as follows:

- ✓ The USALI aims at providing information to support the managers' decision-making process. However, there is some criticism on the traditional costing approach that the USALI uses to calculate internal costs. One of the main problems is its inability to allocate indirect costs to the cost objects. Therefore, it seems particularly interesting to combine the USALI with a more contemporary costing method such as the ABC that uses appropriated cost drivers to distribute indirect costs by different cost objects. This would minimize the current weaknesses of the USALI by providing more accurate information to managers;
- ✓ There is limited evidence on the reasons why the USALI is not implemented in a relevant number of hotels outside the U.S. There are some reasons that seem to impact on such decision like the costs associated with its implementation, the inexistence of an efficient IT system, the inexistence of qualified human resources, the fear of managers losing control or cultural issues. A comprehensive study identifying the reasons behind the non-implementation of the USALI would thus be important to fully understand this reality;
- ✓ The implementation of any management technique is facilitated when managers perceive that the benefits associated to their decision are higher than the costs. Yet, the link between the USALI and profitability measurement is exclusively related with the computation of margins. As such, it seems important to study if the adoption of the USALI has a positive impact in the short-term and medium-term performance of hotels and whether firms that already use the USALI are significantly more profitable than others that do not use such MA technique.



### **5.3. Limitations**

The present study uses the SLR to identify relevant scientific literature on the use of USALI in the hospitality industry. Despite the rigor that is associated with this methodology, the study presents some limitations. The selection of the keywords and the exclusion criteria adopted are the most relevant limitations in this review. Although the rationale for this definition is justified and audited by the members of the panel of advisors, they are based on a personal preference.

Thus, this systematic review does not fulfil the objective of reviewing all the literature as some papers might have been eliminated in the previous phases due to the personal influence in the keywords, search strings and exclusion criteria.

## REFERENCES

Acquaah, M. (2013). Management control systems, business strategy and performance: A comparative analysis of family and non-family businesses in a transition economy in sub-Saharan Africa. *Journal of Family Business Strategy*, 4(2), 131-146.

American Hotel and Lodging Educational Institute (2014) Uniform System of Accounts for the Lodging industry. Michigan; Educational Institute.

Arroteia, N., Santos, L. & Gomes, C. (2012) The relationship between the management accounting techniques and the decision making in Portuguese hotels, in *Proceedings Book of 6th International Tourism Congress*. Escola Superior de Turismo e Tecnologia do Mar, do Instituto Politécnico de Leiria, ISBN: 978-989-97395-1-2, Peniche, novembro de 2013.

Arroteia, N., Santos, L. & Gomes, C. (2014) The influence of the environmental and organizational factors in the management accounting of the portuguese hotel, in *Actas del VII Congreso Iberoamericano de Contabilidad de Gestión y IX Congreso Iberoamericano de Administración Empresarial y Contabilidad*, ISBN: 978-84-695-7256-6, Valencia (Espanha), julho de 2013.

Atkinson, Anthony A., Banker Rajiv D., Robert S. Kaplan, Young & Mark, S. (1997): *Management Accounting*, 2nd Edition, Prentice Hall, Upper Saddle River

Atkinson, H., & Brander Brown, J. (2001). Rethinking Performance Measures: Assessing Progress in UK Hotels. *International Journal of Contemporary Hospitality Management*, 13(3), 128-135.

Banker, R., Gordon, P., & Srinivasan, D. (2000). An Empirical Investigation of an Incentive Plan that Includes Non-Financial Performance Measures. *The Accounting Review*, 75(1), 65-92.

Baumeister, R. F. (2013). Writing a literature review. In M. J. Prinstein & M. D. Patterson (Eds.), *The portable mentor: Expert guide to a successful career in psychology* (pp. 119-132; 2nd ed.). New York: Springer Science+ Business Media.

Baumeister, R. F., & Leary, M. R. (1997). Writing narrative literature reviews. *Review of General Psychology*, 3, 311-320.

Bem, D. J. (1995). Writing a review article for *Psychological Bulletin*. *Psychological Bulletin*, 118, 172-177.

Bjornenak, T., & Olson, O. (1999), "Unbundling Management Accounting innovations", *Management Accounting Research*, 10 (4), 325-338.

Brewer, P. (1998) National culture and activity-based costing systems: a note, *Management Accounting Research*, 9 (2), 241-260.

Bruns, J. & Vaivio, J. (2001). Management Accounting Change, *Management Accounting Research*, 12, pp. 389-402.

Cadez, S & Guilding, C. (2008). An exploratory investigation of an integrated contingency model of strategic management accounting. *Accounting, Organizations and Society* Volume 33, Issues 7–8, October–November 2008, Pages 836-863

Chenhall, R.H., & Langfield-Smith, K. (1998). Adoption and benefits of management accounting practices: an Australian study. *Management Accounting Research*, 9, 1-19. <http://dx.doi.org/10.1006/mare.1997.0060>

Chin, J., Barney, W., & O' Sullivan, H. (1995). Best Accounting Practice in Hotels: A Guide for Other Industries? *Management Accounting (UK)*, 73(11), 57-58.

Clifford Fay T., Rhoads, Richard, C. & Rosenblatt Robert, L. (1981): *Managerial Accounting for the Hospitality Service Industries*, WM. C. Brown Company Publishers, Dubuque, Iowa

Cokins, G. (1996): *Activity-Based Cost Management*. Chicago: Irwin.

Collier, P., & Gregory, A. (1995). *Management Accounting in Hotel Groups*. London: Chartered Institute of Management Accountants (CIMA).

Cooper, H. M. (2003). Editorial. *Psychological Bulletin*, 129, 3-9.

Cooper, R & Kaplan, R. (1997) *Cost & Effect: Using Integrated Cost Systems to Drive Profitability and Performance*. Harvard Business School Press  
Cunha, Licínio, (2001), Lisboa: *Introdução ao Turismo*, Verbo.

Damonte, L., Rompf, P., Bahl, R. & Domke, D., (1997). Brand affiliation and property size effects on measures of performance in lodgings industry. *Hospitality Research Journal* 20 (3), 1–16.

Davila, T. (2000). An empirical study on the drives of management control systems' design in new product development. *Accounting Organizations and Society*, 25, 383-409. [http://dx.doi.org/10.1016/S0361-3682\(99\)00034-3](http://dx.doi.org/10.1016/S0361-3682(99)00034-3)

Denyer, D. & Tranfield, D. (2009). Producing a Systematic Review. In D. A. Buchanan & A. Bryman (Eds.), *The Sage handbook of organizational research methods*. Thousand Oaks, CA: SAGE Publications. 671-689

Downie, N. (1997). The Use of Accounting Information in Hotel Marketing Decisions. *International Journal of Hospitality Management*, 16(3), 305-312.

Drury, C. (2000). *Management and cost accounting*. London: Thomson Learning Europe.

Enz, C., Potter, G., & Siguaw, J. (1999). Serving More Segments and Offering More Products: What Are the Costs and Where Are the Profits? *Cornell Hotel and Restaurant Administration Quarterly*, 40(6), 54-62.

Faria, A., Trigueiros, D. & Ferreira, L. (2012) Práticas de Custeio e Controlo de Gestão no Sector Hoteleiro do Algarve, *TMStudies* [online]. 2012, n.8, pp.100-107

Ferreira, A. (2002). Management accounting and control systems design and use: an exploratory study in Portugal. PhD thesis, The Management School, Lancaster University, Lancaster, UK.

Fitzgerald, L., Johnston, R., Brignall, S., Silvestro, R., & Voss, C. (1991). *Performance Measurement in Service Businesses*. London: Chartered Institute of Management Accountants (CIMA).

Fowler, M. (2010). Management accounting education: has the gap closed. Paper presented at the 4th New Zealand Management Accounting Conference, University of Waikato, New Zealand. November.

Garrison, Ray H. & Noreen Eric W. (1997). *Managerial Accounting - Concepts for planning, control decision making*. Irwin series in undergraduate accounting. US: McGraw-Hill Inc.

Georgios Makrigiannakis MSc & Marios Soteriades PhD (2007) Management Accounting in the Hotel Business, *International Journal of Hospitality & Tourism Administration*, 8:4, 47-76

Gomes, C., Arroiteia, N. & Santos, L. (2011). Management accounting in Portuguese hotel enterprises: the influence of organizational and cultural factors, *Readings Book of Thirteenth Annual International Conference GBATA*, (Istanbul, Turkey), 331-338.

Gomes, C., Arroiteia, N. & Santos, L. (2013). Management accounting in Portuguese hotel enterprises - Update Research; Conference: 15th International Conference of Global Business and Technology Association, At Helsinki, Finland, Volume: ISBN: 1-932917-09-8

Greenland, S., & O'Rourke, K. (2001). On the bias produced by quality scores in meta-analysis, and a hierarchical view of proposed solutions. *Biostatistics*, 2, 463-471

Harris, P. (1995). A Development Strategy for the Hospitality Operations Management Curriculum. *International Journal of Contemporary Hospitality Management*, 7(5), 29-32.

Harris, P. (1999). *Profit Planning* (2nd edition). Oxford: Butterworth - Heinemann.

Harris, P. (2006), "The Profit Planning Framework: Applying Marginal Accounting Techniques to Hospitality Services", *Accounting and Financial Management*, eds. Harris e Mongiello, Butterworth-Heinemann, Oxford, 137-150.

Harris, P., & Brander Brown, J. (1998). Research and Development in Hospitality Accounting and Financial Management, *International Journal of Hospitality Management*, 17(2), 161-181.

Harris, P., & Mongiello, M. (2001). Key Performance Indicators in European Hotel Properties: General Managers' Choices and Company Profiles. *International Journal of Contemporary Hospitality Management*, 13(3), 120-127.

Higgins JPT & Green S (editors). *Cochrane Handbook for Systematic Reviews of Interventions Version 5.1.0* [updated March 2011]. The Cochrane Collaboration, 2011. Available from <http://handbook.cochrane.org>.

Horngreen, C., Datar, S., Rajan, M., Wynder, M., Macquire, W., & Tan, R. (2014) *Cost accounting: a managerial emphasis*. New South Wales: Pearson Australia.

Hotel Association of New York City (HANYC) (1996) *Uniform System of Accounts for the Lodging Industry*, 9th revised Ed., Michigan: American Hotel and Lodging Educational Institute.

Ittner, C. D. & Larcker, D. L. (1998), Innovations in performance measurement, trends and research implications, *Journal of Management Accounting Research*, 10, 205-238.

Jesson, J., Matheson, L. & Lacey, F. M. (2011). *Doing Your Literature Review: Traditional and Systematic Techniques*. London: SAGE Publications.

Johnson, H. Thomas & Kaplan, Robert S. (1987). *The Rise and Fall of Management Accounting, Management Accounting*; Jan 187 - AI/INFORM Global Pag 22

Jones, T. (2008). Improving hotel budgetary practice – a positive theory model. *International Journal of Hospitality Management*, 27, 529-540

Kaplan, R., (1990), *The Four-Stage Model of Cost Systems Design, Strategic Finance*, 71-8, 22-26.

Kosarkoska, D. & Mirchesta, I., (2012). The main process in the international financial reporting at the beginning of 21st century. *Procedia-Social and Behavioural Sciences* 44, p.241-249.

Kosarkoska, D. & Mirchesta, I., (2012) *Uniform System of Accounts in the Lodging Industry (USALI) in creating a Responsibility Accounting in the hotel enterprises in Republic of Macedonia. Procedia -Social and Behavioural Sciences* 44, p.114-124.

Kotas, R. (1999). *Management Accounting for Hospitality and Tourism* (3rd edition). London: International Thomson Business Press.

Kumar Roy, S. & Pyne, P. (2011) *Managerial Accounting in the Hospitality Industry—An Overview. The Management Accountant*, Vol. 46, No. 9

Kwanza, F & Schmidgall, R., (1999) *The Uniform System of Accounts for the Lodging Industry: its importance and Use by Hotel Managers. Cornell Hotel and Restaurant Administration Quarterly*, Volume: 40 issue: 6, page(s): 88-94.

Lakshmi, P. (2011) *Role of CMAs in adapting Contemporary Techniques in Hospitality Management, The management Accountant*, Volume 46, Issue 9, September 2011.

Lamelas, J. (2004), Sistema Uniforme de Contabilidade Analítica de Gestão Hoteleira. Lisboa :Vislis Editores.

Major, Maria, & Vieira, Rui, (2009), Contabilidade e Controlo de Gestão, Teoria, Metodologia e Prática. Lisboa: Escolar Editora.

Mia, L., & Patiar, A. (2001). The Use of Management Accounting Systems in Hotels: An Exploratory Study. *International Journal of Hospitality Management*, 20(2), 111-128.

Middleton, V., & Clarke, J. (2001). *Marketing in Travel and Tourism* (3rd edition). Oxford: Butterworth-Heinemann.

Ni, S., Chan, W. & Wong, K. (2012) Enhancing the Applicability of Hotel Uniform Accounting in Hong Kong. *Asia Pacific journal of tourism research*, 2012, v. 17, no. 2, p. 177-192

Nunes, C. (2009), “O Controlo de Gestão na Hotelaria Portuguesa”, Lisboa: ISCTE, 2009. Tese de mestrado. [Consult. 24 Outubro 2016] Disponível em [www:<http://hdl.handle.net/10071/2014>](http://hdl.handle.net/10071/2014).

O’Connor, P. (2003). On-line Pricing: An Analysis of Hotel-company Practices. *Cornell Hotel and Restaurant Administration Quarterly*, 44 (1), 88-96.

Pajrok, A., (2014) Application of target costing in the hospitality Industry, *Journal of Education Culture and Society*, Volume 2014, Number 2, 2014, pp. 154-165(12).

Pajrok, A., (2014) Responsible Accounting in the Hospitality Industry, *Journal of Education Culture and Society* 2014 (2), Volume 2014, Number 2, 2014, pp. 53-60(8).

Patiar, A., (2016) Cost allocation practices: Evidence of hotels in Australia. *Journal of Hospitality and Tourism Management* 26 (2016) 1 – 8.



- Pavlatos, O. & Paggios, I. (2007). Cost accounting in Greek Hotel enterprises: an empirical approach. *Tourismos: An International Multidisciplinary Refereed Journal of Tourism*, Vol. 2, No. 2, pp. 39-61, 2007
- Pavlatos, O. & Paggios, I. (2008). Traditional and recent-developed management accounting techniques in the hospitality industry: evidence from Greece. *Managerial Auditing Journal*, Vol 24 N°1, 2009, pp.81-98.
- Pavlatos, O. & Paggios, I., (2009). Management accounting practices in the Greek hospitality industry. *Managerial Auditing Journal* 24 (1), 81–98.
- Pellinen, J. (2003). Making Price Decisions in Tourism Enterprises. *International Journal of Hospitality Management*, 22(2), 217-235.
- Persic, M., Prohic, M. & Ilic, S. (2001) Management Accounting Systems and Hotel Enterprise Competitiveness, Enterprise in Transition: International Conference Proceedings: ;2001, p817
- Planas, F. (2004) La Contabilidad de Gestión en la Industria Hotelera: Estudio sobre su Implantación en las Cadenas Hoteleiras en España, Tese de Doutoramento não publicada, Universitat Rovira i Virgili
- Planas, F., & Banchieri. L., (2016). Study About Homogeneity Implementing USALI in the Hospitality Business. *Cuadernos de Turismo*, nº37, (2016); pp. 467-469.1
- Phillips P. (1994). Welsh Hotel: Cost - Volume - Profit Analysis and Uncertainty. *International Journal of Contemporary Hospitality Management*, 6(3), pp. 31-36.
- Popowich, L., Taylor, D., & Sydor, D. (1997). Uniform System of Accounts for the Lodging Industry: Are you up to Date? *Bottomline* 1997 Vol.12 No.6 pp.21-25
- Potter, G., & Schmidgall, R. (1999). Hospitality Management Accounting: Current Problems and Future Opportunities. *International Journal of Hospitality Management*, 18(4), 387-400.

Raffisch, N. & Turney, P., (1991): Glossary of Activity Based Management, *Journal of Cost Management*, Fall/1991, pp.53-56

Raiborn, Cecily A., Barfield, Jesse T. & Kinney Michael, R. (1993): *Managerial Accounting*, New York: South-Western College Pub.

Randolph, J. J. (2009). A guide to writing the dissertation literature review. *Practical Assessment, Research & Evaluation*, 14, 1-1

Robalo, Rui (2009), *Mudança nos Sistemas de Contabilidade de Gestão*, em Major, Maria, e Vieira, Rui, (2009), *Contabilidade e Controlo de Gestão, Teoria, Metodologia e Prática*. Lisboa: Escolar Editora.

Roztock, N. & Needy, K.L., (1999): How to design and implement an integrated Activity based costing and Economic Value-Added System, in *Proceedings from the Industrial Engineering research '99 Conference*, Phoenix, AZ, 1999 (CD-Disc)

Scapens, R., Ezzamel, M., Bruns, J., & Baldvinsdottir, G., (2002), *The Future Direction of UK Management Accounting Practices*. London: CIMA.

Schmidgall, R., Borchgrevink, C., & Zahl-Begnum, O. (1996). Operations Budgeting Practices of Lodging Firms in the United States and Scandinavia. *International Journal of Hospitality Management*, 15(2), 47-53.

Schmidgall, Raymond S. and Malk, Martin. (1992) "Understanding Overheading," *Lodging*. (December 1992), pp. 33-37.

Schmidgall, R. & Ninemeier, J., (1987). Budgeting in hotel chains: coordination and control. *The Cornell Hotel and Restaurant Administration Quarterly* 28 (1), 79–84.

Sharma, D. (2002). The Differential Effect of Environmental Dimensionality, Size and Structure on Budget Systems Characteristics in Hotels. *Management Accounting Research*, Volume 13, Issue 1, March 2002, Pages 101-130.

Shields, M. D. & Young, S. M. (1989) A behavioural model for implementing cost management systems, *Journal of Cost Management*, Winter, 17-27.

Sorin, B. (1918). The Relevance of Management Accounting for the Hospitality Industry; University of Oradea, Faculty of Economics. *Annals of Faculty of Economics*, University of Oradea, Faculty of Economics, vol. 1(1), pages 886-893, July.

Sternberg, R. J. (1991). Editorial. *Psychological Bulletin*, 109, 3-4

Tai, H., (2000). The application of activity-based costing in hotel context. MSc thesis Unpublished, Oxford Brooks University, Oxford.

Tranfield, D., Denyer, D. & Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14, 207–222.

Turney, P., (1992), Activity Based Management: ABM Puts ABC Information to Work, *Management Accounting*, January, pp.20-25

Uriquidi, A. (2013). The choice of management accounting techniques in hotel sector: the role of contextual factors. *Journal of Management Research*, 5(2), 65-82.

Uyar, A. & Bilgin, N. (2011) Budgeting practices in the Turkish hospitability industry: an exploratory survey in Antalya region. *International Journal of Hospitality Management*, 30, 398-408.

World Tourism Organization (2003), retrieved November 15, 2003 from <http://www.world-tourism.org/aboutwto/eng/menu.html>