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**THEMATIC  
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**I**



**UNIVERSITY OF KRAGUJEVAC  
FACULTY OF HOTEL MANAGEMENT  
AND TOURISM IN VRNJAČKA BANJA**



# THE IMPORTANCE OF ACCOUNTING INFORMATION SYSTEMS USAGE IN HOTEL INDUSTRY

*Aleksandra Mitrović<sup>1</sup>; Snežana Knežević<sup>2</sup>;*

## Abstract

*Accounting information and Accounting Information Systems are of great importance in the company in support of various business-financial decisions. Considering the growing and more dynamic development of information technologies and the "information society", there is a need to constantly review the existing, develop and implement new and more modern technologies. The aim of this paper is to examine the importance of Accounting Information Systems, by examining the importance of using Accounting Information Systems in the hotel industry, in order to indicate the necessity of development. Also, on the basis of the subject of research and analysis of results, several research questions were opened regarding further directions of research and the possibilities of perceiving the importance of using Accounting Information Systems in the hotel industry.*

Key Words: *Accounting Information Systems, hotel industry, accounting*  
JEL classification: *M41, L83*

## Introduction

Accounting information facilitates strategic long-term planning for companies that operate in a highly competitive and dynamic environment and provide the necessary basis for financial reporting (Mitrović & Knežević, 2016). The development of accounting information, in addition to supporting business and financial decision-making in many sectors of the company, according to Downie (1997), to support marketing decisions in hotels provides opportunities to improve the quality of the decisions

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<sup>1</sup> Aleksandra Mitrović, Ph.D., Assistant Professor, University of Kragujevac, Faculty of Hotel Management and Tourism, Vojvođanska 5a, Vrnjačka Banja, Serbia, Phone: +381 36 515 0024; E-mail: [aleksandra.stankovic@kg.ac.rs](mailto:aleksandra.stankovic@kg.ac.rs)

<sup>2</sup> Snežana Knežević, Ph.D., Associate Professor, University of Belgrade, Faculty of Organizational Sciences, Jove Ilića 154, 11000 Belgrade, Serbia, Phone: +381 11 395 0875; E-mail: [snezana.knezevic@fon.bg.ac.rs](mailto:snezana.knezevic@fon.bg.ac.rs)

made, because the capacity of the available technology can produce information that was not previously possible.

With the emergence of information technology (IT), the use of IT solutions to support the collection and communication of accounting information must be a priority as part of initiatives to increase business competitiveness and productivity. Accounting information, which is usually of quantitative character, i.e. numerically expressed in order to reduce the uncertainty and risk in the business of the company, gives priority over other types of information. This information, important for effective corporate governance, helps different customers meet their demands. In this regard, the accounting information produced by Accounting Information Systems (AIS) is important for accounting information both to external and internal users. It helps to improve accounting information and provides an adequate basis for decision making (Mitrović & Vučić, 2015). The AIS enables more accurate reporting, processing large quantities of transactions and producing significant reports for analysis needs.

According to Boczko (2007: 13), two common interrelated purposes are possessed by the AIS:

- providing users with information, or the function of decision facilitating – that is the function dealing with assisting decision making/decision makers by providing ‘useful’ information, and
- the function of decision making support and facilitating control, or the function of influencing/mediating decision – that is the function regarding control and inducement of alternative forms of behaviour where conflict exists and/or mediation is required between transacting parties.

Managers in the hotel industry, compared with other managers in the manufacturing industry, face more non-standardized and complex operating conditions due to the unique characteristics of hotel services. Budgetary participation of hotel industry managers and their use of information technology for communication can help them face non-standardized and complex work tasks in order to better perform their work (Winata & Mia, 2005).

In the study by Mia & Patiar (2001) the use of AISs by general managers and managers in the sector of luxury hotels is explored. The study further investigates the emphasis of general managers on financial and non-

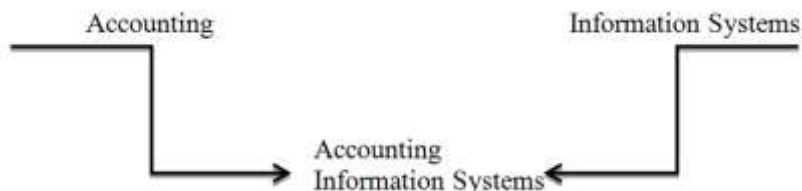
financial performance indicators when evaluating the performance of their department managers. Additionally, the satisfaction of managers with details and availability of their hotel's Management Accounting System (MAS) is assessed. The results show that general managers and department managers equally utilize MAS for both short and long-term decisions. However, a detailed analysis of the data by manager groups shows that general managers differ from department managers regarding their use of MAS for decision-making. Further, compared to department managers, general managers are found to be more satisfied with the frequency in which MAS is available to them. Regarding department manager's performance evaluations by general managers, the results reveal that general managers put more emphasis on financial than on non-financial performance indicators.

Having in mind the importance of IT and AIS, this paper discusses the importance of the AIS in general, as well as the importance of using AISs in hotel companies. The second part deals with a review of the literature on the importance of Accounting Information Systems. The third part of the paper points to the importance of the use of Accounting Information Systems in Hotel Industry, given the importance of hotel companies. Examples of accounting organization charts are given for a typical full-service hotel. Further indicated is that most common technologies adopted by the hotels are accounting-based applications and minimal use of management accounting types of modules.

### **Literature Review – the Importance of Accounting Information Systems**

An Accounting Information System is a collection of data and processing procedures that creates the necessary information for its users according to Bagranoff, Simkin & Strand (2010). An AIS represents a unique structure within an entity (Wilkinson et al., 2000). All financial and non-financial data that occur in enterprises will be transformed into accounting information, in order to meet the needs of informing different users. An AIS is to a large extent dependent on the application of information and accounting systems. Figure 1 precisely shows that an AIS is a combination of the following disciplines: accounting and information systems (Bagranoff et al., 2010).

Figure 1: AISs used two important disciplines - Accounting and Information Systems



Source: according to: Bagranoff, N.A., Simkin, M.G. & Strand, C. (2010). *Core Concepts of Accounting Information Systems, Tenth Edition*, John Wiley and Sons, Inc.

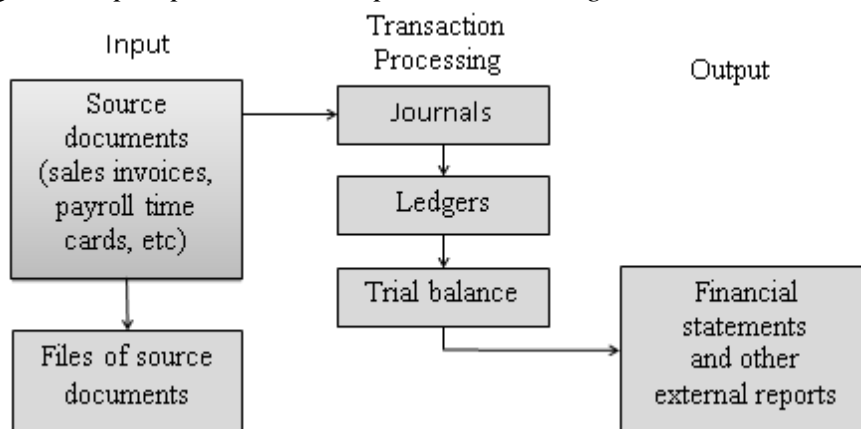
Accounting information plays a very important role in supporting various business decisions. Expanded IT use improves accounting functions to make them more efficient and effective in complementing accounting information. An AIS enables accurate reporting, processing of a large number of transactions, and the production of significant reports for analysis purposes. Despite the many advantages of AISs, small and medium-sized enterprises (SMEs) lag behind in the implementation of AIS. Therefore, the study Lutfi, Idris & Mohamad (2016) examined the factors that influence the use of AIS among Jordanian SMEs based on technological, organizational and environmental factors, where, based on the response of 187 companies, it was found that compatibility, owner/manager commitment, organizational readiness, competitive pressure and government support have a significant impact on the use of AIS among enterprises.

The Accounting Information System should adequately respond to the information requirements of the management in the company. Information and reports required by managers at all levels in companies depend on the specific nature of each entity's activity, position and area of responsibility of each manager (Stanković et al., 2012). The connectivity of the Accounting Information System with company management is specific for the purpose of adjusting the management with the overall information capabilities of the Accounting Information System. It produces financial reports that are important for the management and decision-making of management, and precisely by the action of management for eliminating the weaknesses of production by re-demands, which is an initial impetus for the improvement of information content (Knežević et al., 2012).

In order to respond adequately to the requirements of the management, the Accounting Information System must be organized as an active and creative system. How does the Accounting Information System respond to management requirements? With its proactive solutions, the organizer of the accounting function should consider, direct and improve the information requirements of the management. In this way, it increases the information power of the Accounting Information System and makes it easier for management to make business-financial decisions (Knežević et al., 2012).

Managers may be helped by the accounting information to understand their tasks more clearly and narrow down uncertainty before decision-making. Figure 2 shows input, process and output in accounting. The Law on Accounting (2013) provides that a legal entity and an entrepreneur that processes data on a computer is required to use standard accounting software that allows the functioning of the internal accounting control system and prevents the deletion of recorded business changes.

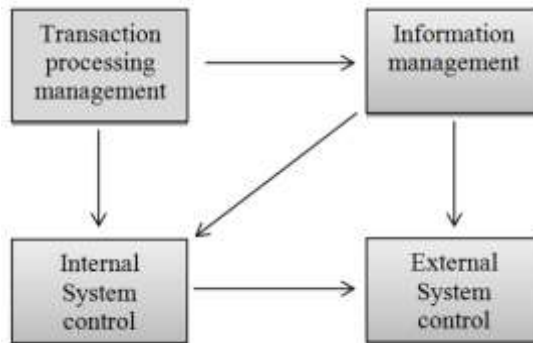
Figure 2: *Input, process and output in Accounting*



Source: according to: Bagranoff, N.A., Simkin, M.G. & Strand, C. (2010). *Core Concepts of Accounting Information Systems, Tenth Edition*, John Wiley and Sons, Inc., p.15.

Through understanding the wider sense, we can say that the Accounting Information System has an integrating, that is, a unifying role in meeting the organizational goals of a modern organization. The Accounting Information System through a unifying role affects the fulfillment of the organizational goals of modern enterprises. Figure 3 shows the integrated nature of an AIS.

Figure 3: *The integrated nature of an AIS*



Source: *Boczko, T. (2007). Corporate accounting information systems. Pearson Education, p.15.*

In modern enterprises, knowledge of employees is a key production factor in the organization and as the fundamental task of AISs, the satisfaction of the various information needs of the management regarding the making of business and financial decisions is emphasized (Stankovic et al., 2013).

When we talk about accounting specifically, it can be noted that accounting has made tremendous progress due to the development of ICT. Accounting software today is replacing traditional ways of doing business, and depending on the needs of companies, they can contribute to the realization of specific requests by the company's accountants. Information technologies have resulted in numerous advantages in processing and presenting accounting information, and in that sense, specifically for reporting purposes, the shortened time needed by accountants for the compilation and disclosure of reports, and hence the efficiency in presenting information is improved, which is certainly positive also from the aspect of the quality of business decisions of various stakeholders.

According to Mancini, Vaassen & Dameri (2013: 2), three factors can be considered as the main factors of AISs change or development:

- Technology;
- Management practices and models;
- Accounting rules.

The development of Accounting Information Systems is directly reflected in the development of reporting. The general conclusion is that shifting from traditional data processing modes in accounting to more modern

ones leads to various benefits, among which the key point is the reduction of time and hence the improvement of efficiency and accuracy of information. Previously, in terms of the continuous development of accounting information systems, the reports are available immediately, at the request of appropriate groups of users, with specific requirements regarding information detail (Mitrović, 2016).

### **The Importance of Accounting Information Systems Usage in Hotel Industry**

Given that the hotel industry has a major impact on the contribution of GDP and the development of countries, the importance of studying the hotel industry and all the factors that lead to the development of this industry is perceived and can lead to improvement in the future. One of them, imposed in the last couple of years as necessary, with the growth and development of IT, is AIS (According to Ramli, 2013).

In the Republic of Serbia by the classification of activities, the Republic Institute of Statistics defines sectors, areas, branches and groups of activities with activity codes. Sector I includes accommodation and food services through: provision of short-stay accommodation for visitors and other travelers, as well as the preparation of complete meals and drinks for direct consumption, specifically covering the areas 55-Accommodation and 56-Food and beverage serving activities.<sup>3</sup>

The accounting sector in hotel companies helps other departments in relation to the appropriate procedures to be followed by each department to provide planned sales of products and services to customers, following up established hotel policies and procedures (Hales, 2005). Collaboration can be seen in the following example: Managers in the front office analyze sales revenues in relation to different segments on a daily basis, compared to the number of available rooms, and other criteria. It is very important that managers make a comparison of realized revenues with planned revenues, and compare them with revenues generated in the previous period, in order to look at a certain trend of income trends.

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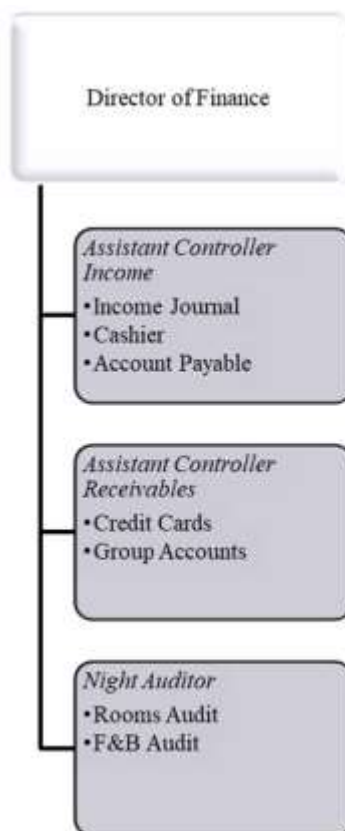
<sup>3</sup> See more Knežević, S. & Mitrović, A. (2017). Analysis of the Opinions in the Audit Reports of Companies in the Hospitality Sector: Accommodation and Catering Service. *2st International Scientific Conference, Tourism in Function of Development of the Republic Of Serbia – Tourism product as a factor of competitiveness of the Serbian economy and experiences of other countries*, 1-3 June 2017. Thematic Proceedings II, Faculty of Hotel Management and Tourism in Vrnjačka Banja, 324-340.



Managers participate in the process of paying bills by customers, forwarding invoices for payment, checking the correctness of parts of invoices in order to ensure account approval and correctness. Then they hand their day's work to the Night Auditor that checks in any remaining guests and starts the process of auditing the day's work (Hall, 2008).

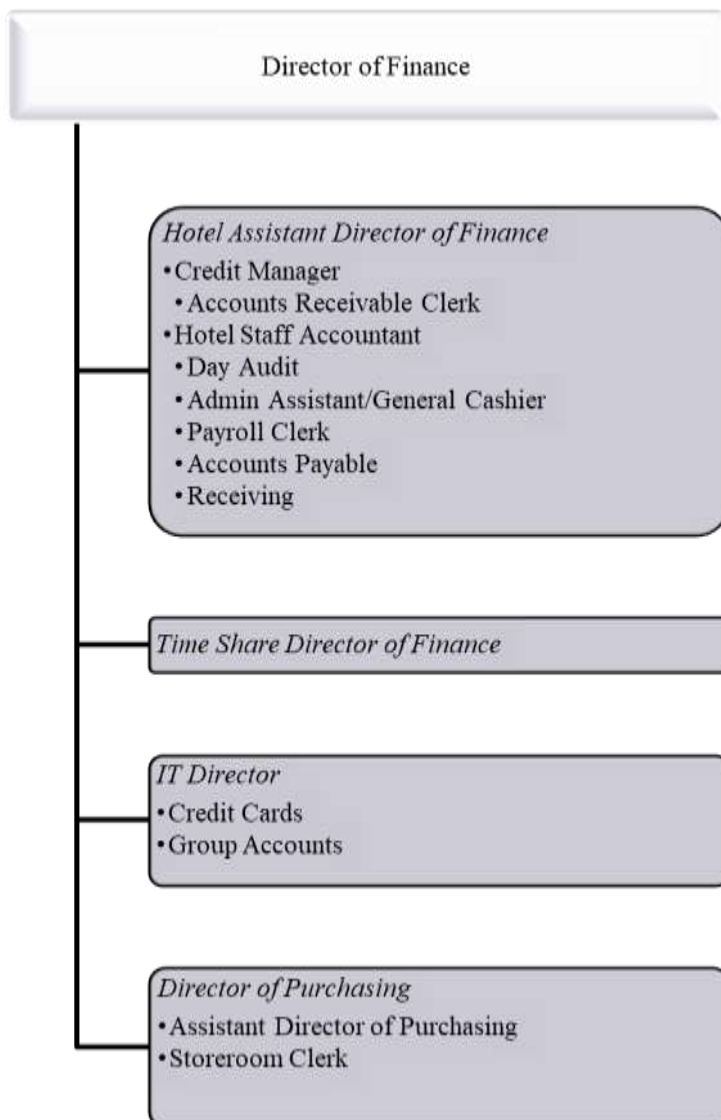
As we can see from the hotel organization chart, the Accounting sector is one of the staff departments with the Director of Finance or Controller responsible for all accounting operations and reporting to the General Manager. The accounting personnel include both managers and hourly employees. Figure 4 and 5 contain two accounting organization charts for a typical full-service hotel.

Figure 4: *Example for accounting organization charts for a typical full-service hotel*



Source: according to: Hales, J. (2005). *Accounting and Financial Analysis in the Hospitality Industry*, Elsevier: Butterworth Heinemann, p.53.

Figure 5: *Example of accounting organization charts for a typical full-service hotel*



Source: according to: Hales, J. (2005). *Accounting and Financial Analysis in the Hospitality Industry*, Elsevier: Butterworth Heinemann, p.53.

Managers in restaurants and catering establishments cooperate with the accounting sector in the same way as managers in the front office. However, instead of market segments, these managers are interested in

information on food and drink (breakfast, lunch and dinner) to analyze sales (Hales, 2005).

In classifying IT in hotels it is important to take into account the following functional area it affects:

- Rooms.
- Back office or administration.
- Marketing and sales.
- IT systems for clients.
- IT infrastructure.
- Additional hotel services.

The following areas of accounting are defined in administration or back office or management (Bulchand-Gidumal & Melián-González, 2015):

- Hotel accounting. Systems for management of hotel accounting. As in most back-office systems described in this section, some authors have found that generally unsophisticated uses oriented toward basic automation. Nevertheless, as the possibilities offered by IT are realized, incorporating indicators of key performance for the hotel with the link between the use of IT and organizational performance becoming clearer.
- Guest accounting. Systems for accounting guests' consumption during their stay at the hotel and preparation of the final bill. The information from all points where consumption takes place in the hotel is being received by the system.

When selecting a specific AIS in a hotel, one needs to consider several factors. Some of them are the size of the hotel, the number of employees and the organizational scheme of the hotel. In all this, it should be borne in mind that the AIS must be accessible and a system that will be chosen to serve the purpose of the hotel, which justifies the investment in the AIS. When, for example, we look at hotel companies that according to the size criterion belong to middle and large legal entities, first of all, we can conclude that these hotels have many departments, cost centers and revenue centers, a large number of employees and have a large number of customers, a significant number of suppliers (usually).

The foregoing leads to the need to implement an efficient AIS, as accounting becomes more and more complex, with more and more business transactions, changes in legal and secondary legislation, which a

modern AIS has to follow. Since business is becoming an increasingly complex the key to monitoring and analyzing the problems are also AISs.

The decision to invest in a particular AIS will usually be made by the upper management level at the hotel, which will look at the level of sales and revenues as the main factors in making decisions. The hotel industry is still, in most countries, dependent on the state, the development strategies and investments at the local level, the level of local communities. Certain hotels are largely dependent on government agencies and the local population, and when the government reduces consumption or in case of economic downturns, these hotels that are directly dependent make a drop in sales.

Hotels that are directly under a certain program by the state can better cope with economic downturns, because in this case, most often, they will have reservations by government agencies (example Vouchers for tourism development in Serbia). In contrast, other hotels, usually defined as large legal entities, are not very interested in local economic services, since their customers are from abroad and focus their sale to mostly international tourists.

The users will utilize the AIS to the extent they are satisfied with it, especially when there will sometimes be situations in which the AIS will not be able to respond to all user needs. For these reasons, the AIS should be a flexible system that serves to meet the needs of users and is constantly upgraded. Hotel companies that value AIS capabilities invest in good AIS systems and thus affect return from the investment. An AIS affects the achievement, preservation and improvement of the competitive advantages of hotel companies on the market and directly or indirectly, AIS affects the performance of hotel companies (Ramli, 2013, p.233).

According to Boczko (2007: 151) the following is provided by the most contemporary, computer-based accounting software:

- fully integrated general ledger, sales ledger and purchase ledger systems,
- audit services for integrated transaction,
- facilities for performance evaluation,
- solutions for report writing (e.g. VAT reporting), and
- preparation facilities of financial statement.

The study by Ramli (2013) found that accounting-based applications are the most common technologies adopted by the hotels such as payroll, account receivables and payables, and hotels less utilize billing, online reservation, purchasing and inventory modules and interviewed respondents stated that compared to other applications they were more concerned about accounting related applications. This study also shows minimal usage of management accounting types of modules for cost accounting, budgeting, budget variances and operational planning and control and other optional modules of financial analysis, online payment and receipting, also at a relatively low level of utilization are order entry and personnel management.

### **Conclusion**

The development of IT and the development of AISs continuously lead to the need to perceive the state of development, the need to upgrade and implement new and more contemporary solutions.

AISs are used in a variety of activities, of service or production character, and due to the specific nature of the business that the company is dealing with, AISs must be adapted to the specifics of that enterprise. In addition to other activities, an important segment in the use, having in mind the significance of the development of tourism and hotel industry, are the AISs in the hotel industry. It is important that the AIS implanted in the hotels is a flexible system, which can monitor development trends and trends in line with any changes.

Once again, it must be pointed out that the AIS product is mostly quantitative information, which may be a major disadvantage, especially if it is taken into account that these are mainly information of a historical nature. Regarding the AIS, the slogan "more is better" should not be valid, because the view that the higher the amount of data processed, the greater the amount of information it produces, and the company becomes more efficient is wrong. In connection to the foregoing, particular attention should be paid to the quality of information, because it is well known that for the successful operation of companies it is necessary to provide quality information in a timely manner.

## References

1. Bagranoff, N.A., Simkin, M.G. & Strand, C. (2010). *Core Concepts of Accounting Information Systems*, Tenth Edition, John Wiley and Sons, Inc.
2. Boczko, T. (2007). *Corporate accounting information systems*. Pearson Education.
3. Bulchand-Gidumal, J. & Melián-González, S. (2015). *Information Technology (IT) in Hotels: A Full Catalogue*.
4. Downie, N. (1997). The use of accounting information in hotel marketing decisions. *International Journal of Hospitality Management*, 16(3), 305-312.
5. Hall, J.A. (2008). *Accounting Information Systems*, Sixth Edition, South-western: Cengage Learning.
6. Hales, J. (2005). *Accounting and Financial Analysis in the Hospitality Industry*, Elsevier: Butterworth Heinemann.
7. Knežević, S. & Mitrović, A. (2017). Analysis of the Opinions in the Audit Reports of Companies in the Hospitality Sector: Accommodation and Catering Service. *2st International Scientific Conference, Tourism in Function of Development of the Republic Of Serbia – Tourism product as a factor of competitiveness of the Serbian economy and experiences of other countries*, 1-3 June 2017. Thematic Proceedings II, Faculty of Hotel Management and Tourism in Vrnjačka Banja, 324-340.
8. Knežević, S., Stanković, A. & Tepavac, R. (2012). Accounting Information System as a Platform for Business and Financial Decision-Making in the Company. *Management* (1820-0222), (65), 63-69.
9. Lutfi, A. A., Idris, K. M. & Mohamad, R. (2016). The Influence of Technological, Organizational and Environmental Factors on Accounting Information System Usage among Jordanian Small and Medium-sized Enterprises. *International Journal of Economics and Financial Issues*, 6(7S).

10. Mancini, D., Vaassen, E. H. & Dameri, R. P. (2013). Trends in accounting information systems. In *Accounting Information Systems for Decision Making* (pp. 1-11). Springer Berlin Heidelberg.
11. 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.
12. Mitrović, A. (2016). Accounting Information Systems as a Support to Financial Reporting of Companies. Paper presented at *Sinteza 2016 - International Scientific Conference on ICT and E-Business Related Research*. April 22 - 23, 2016. godine, Beograd, Univerzitet Singidunum, 407-411.
13. Mitrović, A. & Knežević, S. (2016). Specifics of financial reporting in special hospitals in Serbia. *Ist International Scientific Conference Tourism in function of development of the Republic of Serbia-Spa Tourism in Serbia and Experiences of Other Countries*, 2-4 June 2016. Thematic Proceedings I, Faculty of Hotel Management and Tourism in Vrnjačka Banja, 157-172.
14. Mitrović, A. & Vučić, V. (2015). Računovodstveno informisanje u funkciji podrške poslovnom odlučivanju u preduzeću, *Menadžment u hotelijerstvu i turizmu*, 3(2), str. 89-95.
15. Ramli, A. (2013). *Usage of, and satisfaction with, accounting information systems in the hotel industry: the case of Malaysia* (Doctoral dissertation, University of Hull).
16. Republički zavod za statistiku, <http://webrzs.stat.gov.rs/WebSite/userFiles/file/Klasifikacija%20delatnosti/Klasifikacija.pdf> (accessed on 18.01.2018)
17. Stanković, A., Knežević, S. & Mitrić, M. (2013). Accounting Information System as the central point of a modern organization, (2013), *The 3<sup>rd</sup> International Conference "Economics and Management-Based on New Technologies" EmoNT 2013*, 13-16.jun 2013. godine, Vrnjačka Banja, SatCIP d.o.o Vrnjačka Banja, 461-465.
18. Stanković, A., Mitrić, M. & Knežević, S. (2012). Business and financial decisions based on information provided by Accounting

Information Systems, *The 1<sup>st</sup> Virtual International Conference on Advanced Research in Scientific Areas (ARSA-2012) Slovakia*, 03-07.decembar 2012. godine, Slovačka, EDIS – Publishing Institution of the University of Zilina, 660-663.

19. Zakon o računovodstvu (Službeni glasnik br. 62/2013)

20. Wilkinson, J.W., Cerullo, M.J., Raval, V. & Wong-On-Wing, B. (2000). *Accounting Information System: Essential Concepts and Application*, Fourth Edition, John Wiley and Sons, Inc.

21. Winata, L. & Mia, L. (2005). Information technology and the performance effect of managers' participation in budgeting: evidence from the hotel industry. *International Journal of Hospitality Management*, 24(1), 21-39.