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Financial Literacy of Managers in Serbian Health Care Organizations as a Path to Sustainability

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Abstract: Adequate financial management is of great importance to the health care system. In the contemporary state of affairs, health care is facing numerous limitations due to drastic costs and growing pressures to provide quality health care. In such appalling conditions, the managers of health organizations must build skills and knowledge that go beyond the comfort zone of their clinical competencies. It is necessary to develop their leadership skills. Bearing in mind the importance of financial competencies, the general aim of this paper is to determine the competencies of the managers of Serbian health institutions (private and public sector) in this area. Insufficient attention has been given to how health care organizations' financial literacy affects their sustainability. For the purpose of this prospective research, a questionnaire was created that surveyed the managers of various health care institutions. The results of this study indicated that managers of health organizations have a relatively modest level of financial knowledge. However, they participate in financial activities to a large extent. This gap between the function they perform and the knowledge they have can potentially harm the well-being of the health care organizations they lead. Managers of organizations in the public sector showed a more active role in the development of business plans and more frequent independent decision making, while managers of organizations in the private sector gave more importance to financial control, negotiation, and internal financial reporting, for the improvement of the management process.

Keywords: financial management; financial literacy; financial knowledge and skills; health organizations; sustainability

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1. Introduction

There are many challenges that health systems face in the planning and organizing of their services, with particular emphasis on limited funds and rising costs.

An important factor upon which the quality of the work of health institutions depends is the system of career advancement regarding management structures. According to the Peter Principle, employees climb a hierarchical ladder all the way to the "level of incompetence for a certain position" [1]. In customary conditions, employees make progress in accordance with their achievements and success in a certain position. Each further advancement implies that they must have new competencies. However, because of numerous limitations (cognitive, professional, and others), there is a cut-off line for advancement for each employee, after which they do not have the competence to advance to a new position. In this regard, Romaine [2] stated that "competent individuals naturally become candidates for advancement. As they climb the organization's hierarchy, they find new challenges in each new job. In the end, each individual becomes promoted to a job for which his competence is no longer sufficient". The Peter Principle states that the best worker is not always the best candidate for a managerial position [3]. In addition to the Peter Principle,

it seems important to mention the "Dunning–Kruger effect". According to the Dunning–Kruger effect, those who are incompetent, for lack of a better term, have little insight into their incompetence; there is a cognitive bias where people incorrectly overestimate their knowledge or ability in a specific area [4,5]. On the other hand, Benson and Shue [6] argued that if organizations promoted employees based on traits that predict managerial performance, they would promote employees who perform better and thus weaken the incentives for workers to perform well in their current roles. Bußwolder et al. [7] argued that such promotion policies can lead to perceptions of nepotism, favoritism, or injustice.

Managing the business of any organization, including health organizations, is a complex and demanding activity. Complexity is reflected in sub-activities or in the so-called processes that make up management [8]. Considering the fact that management includes planning, organizing, controlling, and analyzing, this means that material, financial, and human resources, must also be managed [9]. "Human resource management (HRM) is a strategic approach to managing the most valuable resources of an organization" [10] (p. 37). Considering the complexity of the management issues in health care, it is necessary that the staff who run the activities of health organizations and are part of the so-called "managerial functions" must have a corpus of knowledge and skills in the field of business management [11]. Financial planning, financial control, financial analysis, and financial reporting, require the health care managers to master, understand, and apply these elements of knowledge and skills [12]. Xu et al. [13] stressed that financial literacy is an important factor in shaping and improving financial behavior, and van Rooij et al. [14] stressed that a lack of financial literacy is associated with undesirable financial behaviors. Financial education programs customized for specific groups are more effective than others [15]. With the advent of globalization and the development of technology, the financial decisions that individuals need to make are increasingly complex [16].

Self-employed business owners in developed countries conduct broad financial retirement planning [17]. Certain studies indicated "gaps" in the required knowledge, skills, abilities, and verifiable competencies of health workers, especially those in managerial positions [18]. Assuming that health organizations are mostly run by managers who are primarily health professionals, it is necessary to define the knowledge and the basic set of skills that must be mastered through a systematic and seriously organized process of education.

When it comes to Serbia and its health care institutions at the primary, secondary, and tertiary levels, the regulations on the internal organization and systematization of jobs mostly determine the organizational unit that deals with economic and financial affairs. Depending on the size of the health institution, it is usually a department that is a part of the so-called "business service", i.e., the economic–financial and legal–administrative affairs service [19]. Health care in Serbia is performed at primary, secondary, and tertiary levels. Health activity at the primary level includes institutions where citizens can go without instructions: primary health centers, pharmacies, student polyclinics, etc. The most important institution at the primary level is the primary health center. The secondary level of health care includes hospitals where specialist health care is provided. The tertiary level of health care includes institutions, such as clinical centers, clinics, institutes, and clinical-hospital centers, all at the sub-specialist level.

A health care institution can be established with public or private funds. A publicly owned health care facility is founded by the Republic of Serbia, an autonomous province or a local self-government unit. Privately owned health care facilities are founded by a juridical or natural person. Health institutions are established as health centers, health institutions, polyclinics, pharmacy institutions, hospitals (general and special), health centers, institutes, public health institutes, clinics, institutes, clinical-hospital centers, and university clinical centers.

Private health care institutions function as general hospitals, specialized hospitals, health centers, polyclinics, pharmacies, and dental practices. The structure of private sector health service providers is diverse, and the distribution of health agents is territorially

dispersed. Overall, looking at the concentration of the private sector, it can be seen that private practice health services are the most developed in Belgrade, which is expected considering the population density.

The problem with such organizational solutions arises when the management of the health organization relies on an administrative, rather than a strategic, role for most of their economic and financial affairs. Folger [20] observed three decades ago that "without financial planning, health care managers have no way of knowing whether their strategies are realistic. Strategic and financial planning must be combined together at all levels of health management, from organization-wide efforts to individual programs". Consequently, managers in health organizations must have the minimum necessary basic knowledge to successfully lead their organizations through the realization of strategic goals in all phases of management—planning, leadership, organization, and control.

There is a lack of scientific papers that deal with the state and dynamics of the financial knowledge, skills, and competencies, of health institution managers. The main goal of this paper is to determine the financial competencies of the heads of health institutions in R. Serbia, to contribute to the strategic guidance needed for health organizations to succeed.

This paper is organized as follows. After the introduction, a literature review is presented. The third section presents the research methodology. The results of the research are presented in the fourth section. In the last section, the concluding considerations and limitations of the research are presented, from which discussions of the direction of future research arise.

2. Literature Review

The financial knowledge, skills, and competencies of decision makers and health policy makers are becoming increasingly important. Ye and Kulathunga [21] stated that "financial literacy also emerged as a predictor of access to finance and financial risk attitude". Babajide et al. [22] emphasized that "financial literacy and financial capabilities practices also have a significant positive impact on firm sustainability". According to Lontchi et al. [23], financial inclusion was found to be positively and significantly related to financial literacy and to have a positive and significant impact on sustainable development; financial literacy can affect well-being [24].

Health and financial literacy are two segments of literacy that are particularly important to successfully functioning in modern society [25]. When business actors have a high level of financial literacy, they are able to manage their business finances in a way that maintains the sustainability of their business [26]. Policy makers have embraced financial education as a necessity based on the increasing complexity of consumers' financial decisions [27]. Furthermore, Meyer [28] pointed out that the model of patient health care decision making must include financial literacy. "Understanding the predictors of patient engagement and the factors that influence financial behaviors may allow for making better health care decisions, and finally, improve health outcomes" [29]. A simple Internet search also supported this. After typing the search "finance for health care course" (accessed on 3 February 2023), 598 million results were returned via the Google search engine in 0.50 s. Financial management in health care seems to be a topic that is often on the agenda of both academic and other institutions, such as those involved in education, professional development, and consulting. However, it is much more difficult to find academic and professional publications that deal with the state and dynamics of the financial knowledge, skills, and competencies of the managers of health institutions. Even when considering basic financial literacy, the focus is much more on general, rather than the domain, literacy of health care workers. Furthermore, financial management among health care executives is only a modestly-addressed topic.

Regardless of whether it is conscious or unconscious, one can find a multitude of constructs and expressions that are more or less related to financial competence in the literature. For example, "financial intelligence" is used in certain studies as a core term that defines competencies. This term is frequently used in popular science (see, for example,

Berman and Knight [30]). Salahodjaev [31] advanced one step further and connected general intelligence at the national level with the degree of financial development of entire national economies.

Apart from intelligence, academic and practical publications abound with the term "financial literacy". This term is defined as "the cognitive ability to understand financial information in a specific context" [32]. This term is often associated with different forms of success in different environments. For example, financial literacy has been proven to influence entrepreneurial success [33], successful advancement in the public sector [34], successful understanding of the health insurance system [35], and even the health of individuals [28]. The terminological definition itself is relatively complex. Thus, for example, Hung et al. [36] viewed financial literacy as a framework in which a certain person's financial knowledge is reflected in their perceived knowledge, and thus it affects financial skills that are determined by financial knowledge. On the other hand, a broader understanding was offered by Vukova [37], who indicated that financial literacy means the measure of an individual's knowledge about financial products and concepts, as well as their mathematical skills, numerical skills, abilities, and the undertaking of certain financial activities. According to Sun and Chen [38] "financial capability, the combination of financial literacy (ability to act) and financial access (opportunity to act), improves people's access to resources, which has positive implications for improving health and well-being".

Financial decisions are among the most important life decisions people make, and the information about them is influenced by cognitive and neural processes [39]. Financial literacy has implications for financial decision making [40–42], with outcomes that relate to individuals, communities, countries, and society as a whole [43]. Hubinger et al. [44] pointed out that physician finances are linked to wellness and burnout, but even so, few physicians receive financial management education.

A somewhat narrower concept than the previous ones is "financial acumen". Not only does this term have an amorphous definition, but its use is mostly related to socially sensitive studies, such as gender, racial, and religious differences in financial knowledge (see studies such as Murphy [45]; Carlos et al. [46]). In a general sense, this term refers more to financial resourcefulness in complex situations than to financial competence in the traditional sense.

Given the changes in global and national health care systems, financial knowledge is becoming increasingly important for managers in health care organizations. Therefore, it is important to identify the factors that influence the financial decisions of managers when they are efficiently and responsibly managing their organizations' funds, cash flows, investments, and funding sources in a proper and professional way. Bearing in mind the importance of financial competencies for the strategic guidance of health organizations toward success, the general goal of this paper is to determine the competencies in this area for the managers of health institutions in Serbia.

In accordance with the objectives of the work, the following research questions were defined:

RQ1: What is the scope of formal education in the field of financial management for managers in health care organizations?

RQ2: How much do managers of health care organizations participate in financial planning?

RQ3: To what extent do managers of health care organizations participate in financial reporting and who is providing help to them in the decision-making process?

RQ4: What is the general knowledge of financial terminology of health care organization managers?

RQ5: How actively do managers of health care organizations participate in the development of business plans?

RQ6: How familiar are managers of health care organizations with more complex financial constructs?

Many social, health, and financial crises in recent decades and worldwide trends have had a significant impact on business [47]. The inadequate financial literacy and weak financial skills of managers can threaten the business of health care organizations and lead to bankruptcy. Bankruptcy is a final manifestation of financial problems [48,49]. Srebro et al. [50] stated that "the concept of financial sustainability refers to liquidity, long-term returns, growth potential, and the ability to withstand financial distress".

Financial management is an integral part of the decision-making process related to the activities of fundraising and asset-management activities; it is necessary in order to achieve the higher goals of the business entity [51]. Making adequate financial decisions in a health care organization, according to Cleverly et al. [52], implies an essential understanding of at least the following three critical elements. Firstly, most financial decisions are made on the basis of accounting information, especially information provided from financial statements [53–55]. Therefore, it does not make sense to claim that someone is a good financial manager without them having at least minimal knowledge of accounting and the way it works in the organization. This does not mean that the manager should be a certified accountant, but only that they be obliged to know the principles and mechanics of this area. Second, the financial manager in health care is obliged to possess some knowledge of how the industry works. Health care is a large and complex area and operates according to its economic and financial principles, which differ significantly from, for example, standard corporate financial management. Finally, both finance and accounting are sub-areas of economics and share basic principles and postulates (efficiency, effectiveness, and economy). Understanding the broader economic concepts is extremely useful for the financial management of an organization.

When it comes to the second research question, the results indicated that the leaders of health organizations are significantly involved in financial planning. This was not surprising because other studies pointed to the importance of financial planning in any organization. Some studies even suggested that financial planning should be part of a health organization's strategy, specifying that "integrating strategic planning and financial planning is the best way for health organizations to ensure that their budget allocations are properly targeted to long-term solutions" [56]. It is understood that in addition to managers, other employees are also involved in financial planning (above all, the heads of financial services), as it is an extremely complex process [57].

Managers of health organizations generally hold one of three views on management: (1) financial, (2) procedural, or (3) clinical [58]. The financial view usually implies that managers perform financial activities on a daily basis and that reporting is part of their business routine. This is the view of strategists in the organization. The managers who predominantly collect data and work in accordance with the organization's system have a procedural view. Finally, the clinical view is predominant in managers who are in charge of, or responsible for, the delivery of health services and health care outcomes [59].

An understanding of the financial perspective is hardly possible without understanding what financial management actually means. Financial management in the company implies making three types of decisions: (1) long-term investment decisions, (2) long-term financial decisions, and (3) decisions related to the management of net working capital [8]. All three cases manifest the basic principle of economic management—the requirement for the adequate allocation of resources.

More precisely, this is about collecting and allocating funds in order to maximize the wealth of the organization. Žarkić Joksimović [8] stated that the first two decisions are long-term by nature, and the third one is a short-term decision. These decisions are only theoretically separated. In practice, making investment decisions (procurement of capital equipment) must correspond to the analysis of fundraising (appropriations, own source revenues, loans, or otherwise) for the purpose of financing capital equipment.

When it comes to the participation of the health organization managers in financial reporting, the situation is somewhat different than in planning. This is to be expected because managers have less time for analytical processes, which is in line with the conclusions of

previous studies [58]. In the field of reporting and financial decision making, managers receive the greatest support from the heads of economic and financial services and rarely work independently.

Regarding the fourth research question, relatively poor knowledge of professional financial terminology was noticed among the leaders of health organizations. Despite the fact that numerous studies have indicated the importance of having knowledge of financial concepts for adequate management [60], it seems that health professionals still "do not speak fluent financial language" [61].

The importance of general financial knowledge is shown by the fact that numerous international institutions and organizations have devoted their resources to the improvement of this area. The following organizations stand out in particular: (1) Organization for Economic Co-operation and Development (OECD), which started the financial education project in 2003 and established an international network for financial education; (2) The World Bank, which prepared reports on the state of financial literacy in Lithuania, Bulgaria, Latvia, Croatia, the Czech Republic, Slovakia, Romania, Russia, and Azerbaijan; and (3) the European Union, which formed a group of financial education experts called the Expert Group on Financial Education and influenced the promotion of financial education programs.

Scientific studies dealing with general financial knowledge are relatively extensive. They have logically been conducted with the aim of evaluating the national qualifications of financial knowledge. Such studies have been conducted in the USA [62], Canada [63], and Germany [64], as well as in many other countries. The most financially literate nations in Europe are the Nordic nations (Norwegians, Swedes, and Danes), followed by the British, Germans, Dutch, and Finns. At the bottom of the ladder are the Albanians. The Serbs are in the second half of the list that includes Italians, Bulgarians, Ukrainians, and Belarusians.

Authors from Serbia have also dealt with general financial knowledge. The research on the historical movement of financial literacy from the middle of the 20th century conducted by Štimac [65] is interesting in theoretical terms. This author analyzed its accelerated development until the Second World War, conditioned by the development of trade and trade schools, and the sharp decline in financial literacy after the war, conditioned by the socialist system and the denial of the importance of the financial management and financial goals of allied organizations. Regarding empirical research studies, there are few. The authors have been interested in topics of financial literacy, such as those among farmers [66], students of technical sciences [67], and socially vulnerable groups [68]. Managers, especially health care managers, have remained outside the scope of domestic researchers' interests.

Traditionally, when it comes to financial activities and processes, health care managers mostly rely on financial staff in terms of all of the important financial issues for the organization [69]. That is understandable. Health professionals, as a general rule, are concerned with the quality of health care and clinical issues. Any further concern for financial and other management elements can significantly divert their focus from the key goals of the health organization.

Regardless of the above, the modern environment affecting the health system makes it nearly imperative to acquire knowledge and skills that are exclusively managerial in nature. In this regard, Noh and Lim [60] stated that financial skills should be a part of basic managerial skills. Financial skills help in the allocation of resources in the most efficient way [70], thus fulfilling one of the basic missions of health.

Muller and Karsten [61], in their paper "Do You Speak Finance", explicitly stated the minimum level of terms and knowledge that should be mastered by every manager of a health organization. These terms and phenomena include (1) budget, (2) revenue, (3) costs, (4) market share, (5) payor mix, and (6) performance. In order to achieve the desired performance, among other things, the effective management of human resources is important [71]. The term "human capital" is considered a key element in improving the assets of an organization, since it is a sustainable competitive advantage; thus, those who work in the central core of health care and other organization must develop greater

skills [71]. Human resources for health (HRH) are essential for the functioning of health systems and are key in achieving universal health coverage, health-related sustainable development goals (SDGs), sustainable business practices [47], and national health sector goals [72].

Despite the fact that financial knowledge is increasingly necessary for health care, research to date has indicated that knowledge of financial functions and activities is very modest among health care professionals. In theoretical and conceptual terms, this was indicated by McClenathan and Rickert [73]. More matter-of-fact but more empirically grounded research unequivocally confirmed this concept. For example, in the recent proposal of the third-level project study, Vipond [74] pointed out all of the knowledge that health workers lack and concluded that health workers do not have the capacity to absorb the elements of financial management in addition to working their basic jobs. This conclusion was in line with the general learning curve among health workers, which indicated that health workers from the "Millennial" age group answered almost twice as poorly on the financial test compared to the so-called "Baby Boomers" [75]. In addition, it is noticeable that health workers, for example, cannot even roughly predict future income and business risks, which makes them poor financial planners [76].

It is generally accepted that as health professionals advance up the hierarchical ladder, they gain the missing financial knowledge. With their final advancement to autonomous management positions, they reach a level that requires the proper application of knowledge, skills, attitudes, and behaviors in financial discussions and decisions in the health organization [74]. At the highest instances, there is a need for highly specific financial knowledge, such as understanding the payment system in health care [76], adequate and efficient management of health care costs [77], the creation of a reasonable system for measuring performance in operational management [78], and numerous other types of knowledge.

In the United States, a number of associations insist on the continuation of financial education for health care managers. For example, under the American Nurses Association's framework and standards of practice, financial competencies are said to help nurses to use resources efficiently and maintain a high standard of nursing practice, while requiring them to deal with a range of financial management elements, including articulating business models, analyzing financial statements, and making financial decisions [69]. In Serbia, on the other hand, the governmental body managing the standardizing of health institutions (Agency for Accreditation of Health Institutions, AZUS) stipulated only standards 8 and 9, "Leadership" and "Management", without any explicit and specific call for financial management.

Based on the last research question related to the participation of managers in the development of business plans for their organizations, it can be concluded that the leaders of health organizations do not have enough knowledge in this area. It is more than certain that in complex systems, such as health organizations, the involvement of lower management structures is much needed in the development of business plans. Using the example of the British health system, Currie empirically proved that the middle level of management plays a key role in the development and implementation of the business plans of health organizations. Along with the lack of knowledge, it should be noted that the results indicated that there is not enough necessary experience in developing business plans for organizations among the senior executives. This is not surprising, because it has often been emphasized in previous research that the health care sector (despite drawing significant resources) does not have sufficiently developed methodological guidelines for business planning [79].

Business plans play a central role in linking operational (e.g., clinical) activities and financial outcomes. In this regard, Kalina and Fitko [80] explained that the business plan "helps planning authors to organize thoughts and clearly define the mission, goals and objectives for all team members". Clearly defined goals and objectives give purpose, direction, and added value to the work of all team members. The work of the individual

and the team is defined in the business plan. In addition, health services have a concise, planned document that clearly states what can be achieved. "Writing a business plan alone serves to focus, clarify, and justify scarce resource requirements and thus increase its chances of success, both in terms of funding and implementation." [81].

3. Research Methodology

In order to meet the goal and provide answers to the questions posed in this paper, the research was conducted using a questionnaire as the method of data collection (Appendix A). The approach used was PAPI (Paper-and-Pencil-Interviewing). Despite the fact that electronic questionnaires have numerous advantages, primarily related to the ease and scope of data collection, the processing, and cost-effectiveness, there are some opinions that this approach is inadequate in the following way. The explanation lies in the fact that the questions are of a financial nature, and that they may evoke a need in respondents to either not answer or deliberately fail to answer them.

The questionnaire created for the purpose of this research contained a total of 16 questions of different structures, with the last question being of a demographic, nonessential character. Before creating the final version of the questionnaire, the questions were pilot-tested by three experts (two with academic and one with professional knowledge). Its final form was slightly modified, in accordance with their recommendations, with the aim of improving its readability and comprehensibility.

The sampling in this paper was based on intentional improbable sampling [82], which means that this type of questionnaire mainly points out the purpose of the research.

There were 70 respondents from the public sector and 49 from the private sector, and the respondents were all from hospitals and clinics in the territory of Serbia. Respondents who participated in the research were classified into three groups:

1. Top management: directors, deputy directors, clinic managers;
2. Middle management: heads of departments, department chiefs, and managers of individual sectors from various primary, secondary, and tertiary level institutions;
3. Lower level: managers of technical departments.

Data for the primary research were collected at the beginning of 2023 in the territory of Serbia. Written questionnaires were instantly delivered to the respondents who immediately filled them out. The deliveries were made directly by the author, in order to avoid possible misunderstandings of the instructions. After the data collection, all of the responses were entered into MS Excel and Statistical Package for Social Sciences (SPSS) in order to perform data analysis.

The data are presented in the form of absolute and relative numbers. The normality of distribution was assessed by using Kolmogorov–Smirnov and Shapiro–Wilk tests. Methods of descriptive statistics were used to determine the measures of central tendencies, while the Chi-square test and Fisher's exact test were used to determine the differences between the employees in private and public institutions, as well as between those at various levels of management. The software used was SPSS Statistics for Windows (IBM, Armonk, NY, US).

4. Results

The financial competencies of managers in Serbian health care organizations affect the financial sustainability of these institutions, which was the outline of this research. This section explains the main findings of the statistical analysis.

Table 1 details the distribution in relation to the levels of management in the private and public sectors.

The first research question (RQ1) in this section was related to formal education. Respondents were first asked to answer the question of whether they had previously attended training, coaching, or some other form of formal education in the field of financial management for health care organizations (Table 2). More than 81% of the respondents in the public sector and somewhat less—71.4%—in the private sector stated that they had never received any additional training in this area.

Table 1. Distribution in relation to the level of management in the private and public sectors.

	Level of Management	n	%
Private	Top level	24	34.3
	Middle level	23	32.9
	Top management	23	32.9
	Total	70	100.0
Public	Top level	16	32.7
	Middle level	17	34.7
	Top management	16	32.7
	Total	49	100.0

Source: Authors.

Table 2. Scope of formal education in financial management of managers in health care institutions *.

Private or Public		n	%
Private	No	57	81.4
	Yes	13	18.6
	Total	70	100
Public	No	35	71.4
	Yes	14	28.6
	Total	49	100

Source: Authors. * Attending any type of training in the field of financial management in health organizations.

Given that they were engaged in managerial positions, the respondents were asked to rank according to the importance of the areas of management responsible for making business decisions and for creating the management process in health institutions. It was shown that the most important areas in the private and public sectors were employee motivation (35.7%; 42.9%), followed by financial management (30.0%; 40.8%) (Tables 2 and 3).

Table 3. Areas of management according to importance for decision making *.

Private or Public		n	%
Private	Employee motivation	25	35.7
	Negotiation	9	12.9
	Financial management	21	30
	Project management	7	10
	Public relations	3	4.3
	Public procurement	5	7.1
	Total	70	100
Public	Employee motivation	21	42.9
	Negotiation	1	2
	Financial management	20	40.8
	Project management	2	4.1
	Public relations	1	2
	Public procurement	4	8.2
	Total	49	100

Source: Authors. * Ranking according to the importance of areas of management for business decisions and the management process in a health institution, given that respondents are in a managerial position.

The second research question (RQ2) was focused on financial planning. Respondents were then asked to state the extent to which they participated in the financial planning processes (Table 4). In both sectors, more than half of the respondents claimed to be actively involved in this process (61.4%; 81.6%), indicating that the involvement of managers in the public sector was wider. The role of other employees in the financial planning process was also investigated (Table 5). The largest number of respondents in the private and public sectors (61.4%; 73.5%) stated that the head of the financial service was most often involved in the decision-making process. In addition to the heads of the financial service in the

private sector, lawyers (18.6%) and heads of departments (17.1%) also played a significant role, while in the public sector, the situation was somewhat different, with lawyers at 22.4%, and heads of departments at only 2.0%.

Table 4. Participation of managers of health care institutions in financial planning *.

Private or Public		n	%
Private	No	27	38.6
	Yes	43	61.4
	Total	70	100.0
Public	No	9	18.4
	Yes	40	81.6
	Total	49	100.0

Source: Authors. * Participation in the process of financial planning in your institution.

Table 5. Scope of involvement of other staff in the financial planning process *.

Private or Public		n	%
Private	Head of financial services	43	61.4
	Lawyer	13	18.6
	Department heads	12	17.1
	Somebody else	2	2.9
	Total	70	100.0
Public	Head of financial services	36	73.5
	Lawyer	11	22.4
	Department heads	1	2.0
	Somebody else	1	2.0
	Total	49	100.0

Source: Authors. * Involvement of other staff in the financial planning process.

The third research question (RQ3) was related to internal financial reporting. When asked to what extent the respondents participated in financial reporting activities, since there were internal financial reports prepared for the purpose of making financial and other business decisions and no external reporting as required by law and professional standards, 57.1% of respondents in the private sector and 61.2% in the public sector claimed to participate in such activities, while 42.9% in the private sector and 38.8% in the public sector said they never did so (Table 6).

Table 6. Participation of managers of health care institutions in financial reporting *.

Private or Public		n	%
Private	No	30	42.9
	Yes	40	57.1
	Total	70	100.0
Public	No	19	38.8
	Yes	30	61.2
	Total	49	100.0

Source: Authors. * Participation in creating necessary internal financial reports (reports that are not required by law but are the result of your internal needs for information.

Respondents were also asked to point out a person in the health organization who helped them in making business and financial decisions. The results indicated that the heads of financial services had a key role in both sectors (62.9%; 53.1%), followed by the heads of departments (30.0%) in the private sector; it was an interesting fact that about one quarter of the respondents in the public sector (24.5%) made financial decisions independently (Table 7).

Table 7. Support in making business and financial decisions *.

Private or Public		n	%
Private	Head of financial services	44	62.9
	Company secretary	2	2.9
	Heads of departments	21	30.0
	I make decisions completely independently	3	4.3
	Total	70	100.0
Public	Head of financial services	26	53.1
	Company secretary	4	8.2
	Heads of departments	7	14.3
	I make decisions completely independently	12	24.5
	Total	49	100.0

Source: Authors. * A person who is consulted by the heads of health institutions when making business and financial decisions.

The fourth research question (RQ4) was related to knowledge of the terminology in finance. In order to assess their knowledge of financial terminology, considering that the respondents did not necessarily have to know what the financial decisions were, their elementary knowledge was tested through a control query about what the "threshold of profitability" was. The profitability threshold is the minimum number of sales achieved during a targeted period to reach a break-even point. Two-thirds of the respondents (62.9%) in the private sector and 32.7% in the public sector stated that they had never heard of this term, while only 37.1% in the private sector and 67.3% in the public sector said that they had (Table 8).

Table 8. Health care managers' general knowledge of financial terms: profitability threshold *.

Private or Public		n	%
Private	Do not know	44	62.9
	Know	26	37.1
	Total	70	100.0
Public	Do not know	16	32.7
	Know	33	67.3
	Total	49	100.0

Source: Authors. * Knowledge of the financial indicator term "profitability threshold".

For the purpose of determining the minimum threshold of knowledge in the financial field, respondents were asked about their knowledge of basic financial statements—balance sheet and income statement. The majority of respondents had some knowledge of financial statements (72.9%), while only 27.1% of the respondents were completely unfamiliar with them (Table 9).

Table 9. Health care managers' general knowledge of financial terms: financial statement *.

Private or Public		n	%
Private	no	19	27.1
	yes	51	72.9
	Total	70	100.0
Public	no	9	18.4
	yes	40	81.6
	Total	49	100.0

Source: Authors. * Knowledge of the contents of a balance sheet and income statement.

In the next inquiry, the respondents were asked to rank the financial issues that they considered the most important for the head of the health institution. It was noticeable that the highest importance rankings were given to financial planning (60.0%) and cost management (22.9%) (Table 10).

Table 10. Health care managers' general knowledge of financial terms: importance of financial issues *.

Private or Public		n	%
Private	Financial planning	42	60.0
	Cost management	16	22.9
	Financial reporting	3	4.3
	Financial reporting	9	12.9
	Total	70	100.0
Public	Financial planning	34	69.4
	Cost management	13	26.5
	Financial reporting	1	2.0
	Financial reporting	1	2.0
	Total	49	100.0

Source: Authors. * Ranking according to the importance of financial issues in the opinion of the respondents, which is considered the most important for the position of a health institution head.

The next research question in this section (RQ5) was related to making business plans for health care organizations. Respondents were asked to agree on whether or not they had ever been involved in developing their organizations' business plans. Over 64,3% of the respondents answered that they had never participated in such activities, while 35.7% of them said that they had (Table 11).

Table 11. Health care managers' involvement in creating a business plan *.

Private or Public		n	%
Private	No	45	64.3
	Yes	25	35.7
	Total	70	100.0
Public	No	21	42.9
	Yes	28	57.1
	Total	49	100.0

Source: Authors. * Involvement in creating a business plan for your own or another health organization.

An interpretation of the results on knowledge of the structure and essence of business plans indicated that 51.4% of the respondents were not familiar with a business plan, while 48.6% of the respondents stated that they were (Table 12).

Table 12. Health care managers' general knowledge of financial terms: business plan *.

Private or Public		n	%
Private	No	25	35.7
	Yes	45	64.3
	Total	70	100.0
Public	No	18	36.7
	Yes	31	63.3
	Total	49	100.0

Source: Authors. * Respondents' knowledge of the content of the business plan.

In addition to the research questions, we asked important auxiliary questions that further defined the direction of the financial education of managers in health organizations; for these purposes, two questions were asked.

Respondents were first asked to define the most important areas of financial management. The results indicated that financial planning was a predominantly important area (42.9%), followed by financial analysis (20.0%), and financial decision making (17.1%) (Table 13). Following this, the respondents clarified which areas should be especially developed in further education and training. According to their answers, financial planning (37.1%) and cost management (28.6%) were the predominant choices for development (Table 14).

Table 13. Health care managers' general knowledge of financial terms: process of financial management *.

Private or Public		n	%
Private	Financial planning	30	42.9
	Financial analysis	14	20.0
	Financial control	8	11.4
	Financial reporting	6	8.6
	Financial decision making	12	17.1
	Total	70	100.0
Public	Financial planning	26	53.1
	Financial analysis	12	24.5
	Financial control	5	10.2
	Financial reporting	1	2.0
	Financial decision making	5	10.2
	Total	49	100.0

Source: Authors. * The most important process of financial management.

Table 14. Health care managers' training needs analysis *.

Private or Public		n	%
Private	Financial planning	26	37.1
	Cost management	20	28.6
	Public procurement	9	12.9
	Financial control	12	17.1
	Financial indicators	3	4.3
	Total	70	100.0
Public	Financial planning	21	42.9
	Cost management	18	36.7
	Public procurement	6	12.2
	Financial control	2	4.1
	Financial indicators	2	4.1
	Total	49	100.0

Source: Authors. * Area of financial management for which it would be desirable to organize trainings with the aim of improving management in health care institutions.

In addition, within this research question, the respondents' perceptions of the importance of financial management to the practice of managing and running a health institution were tested. The results indicated that the respondents needed financial education in the areas of planning, management, organization, and control.

Before presenting the data from Tables 15–19, it is necessary to explain why the questions from the domain of specific financial knowledge were selected (RQ6). The first issue in this section was lending. Borrowing is related to financing policy. Determining the optimal level of debt is one of the most complex issues in corporate finance. The purpose of the question was to determine the manager's attitude when it came to lending, that is, what their financial logic was in this regard.

Table 15. Health care managers' specific knowledge of financial terms: lending *.

Private or Public		n	%
Private	True	23	32.9
	False	42	60.0
	I do not know	3	4.3
	No answer	2	2.9
	Total	70	100.0
Public	True	1	2.0
	False	45	91.8
	I do not know	2	4.1
	No answer	1	2.0
	Total	49	100.0

Source: Authors. * To have no debt is always a desirable situation for an organization.

Table 16. Health care managers' specific knowledge of financial terms: financial health of the organization *.

Private or Public		n	%
Private	True	18	25.7
	False	41	58.6
	I do not know	7	10.0
	No answer	4	5.7
	Total	70	100.0
Public	True	2	4.1
	False	42	85.7
	I do not know	2	4.1
	No answer	3	6.1
	Total	49	100.0

Source: Authors. * If sales are growing, the organization is healthy.

Table 17. Health care managers' specific knowledge of financial terms: profitability and cash flow *.

Private or Public		n	%
Private	True	10	14.3
	False	58	82.9
	I do not know	1	1.4
	No answer	1	1.4
	Total	70	100.0
Public	True	3	6.1
	False	45	91.8
	I do not know	1	2.0
	Total	49	100.0

Source: Authors. * If at the end of a year a business has more cash than at the beginning of the period, the business has generated a profit.

Table 18. Health care managers' specific knowledge of financial terms: depreciation *.

Private or Public		n	%
Private	More than EUR 100	5	7.1
	Less than EUR 100	6	8.6
	Exactly EUR 100	54	77.1
	I do not know	3	4.3
	No answer	2	2.9
	Total	70	100.0
Public	More than EUR 100	5	10.2
	Less than EUR 100	6	12.2
	Exactly EUR 100	23	46.9
	I do not know	12	24.5
	No answer	3	6.1
	Total	49	100.0

Source: Authors. * An organization has just bought a piece of equipment that cost EUR 500. This equipment is going to be used for 5 years. The profit of the current year will be reduced by this amount.

The purpose of this question was to check the managers' opinions of the business management capacity. An organization can have a trend of revenue growth but at the same time have financial problems, such as illiquidity, so it is dangerous to evaluate performance based on one indicator.

The purpose of the question about financial health was to test their ability to distinguish cash flow from a profit based on accrual accounting. Accrual accounting implies the recording of the revenues a company has earned but has yet to receive payment for, as well as the expenses that have been incurred but the firm has yet to pay. *Cash flow and profit are not the same thing, and even profitable businesses can experience issues with cash flow.*

Table 19. Health care managers' specific knowledge of financial terms *.

Private or Public		n	%
Private	ROA > ROE	23	32.9
	ROA < ROE	34	48.6
	ROA = ROE	7	10.0
	I do not know	3	4.3
	No answer	3	4.3
	Total	70	100.0
Public	ROA > ROE	2	4.1
	ROA < ROE	38	77.6
	ROA = ROE	3	6.1
	I do not know	4	8.2
	No answer	2	4.1
	Total	49	100.0

Source: Authors. * The return on assets is called ROA and the return on equity invested into the business by shareholders is called ROE. In general, the level of debt is more sustainable if this is satisfied.

Depreciation (addressed in the next question) is considered an internal source of financing, and it does not result in an outflow of cash. Hence, it is a non-cash expense. The preferred answer here was "False" because otherwise the assessment of the investment from an economic point of view would be called into question.

The last question in this section was obviously more complicated than the previous ones. Its purpose was to assess whether the entrepreneur had some knowledge about leverage, that is, the capacity of the debt used to increase returns for the owners. The "leverage effect" is positive when "ROA (return on assets) < ROE (return on equity)". A correct answer to this question indicated a high level of financial knowledge regarding the manager.

Based on the data in Table 15, it can be seen that more than half of the respondents to the question about their attitude regarding lending (60%) gave the desired answer ("false"). Furthermore, according to the results in Table 16, 58.6% of the respondents gave the desired answer to the question related to the impact of income on the financial health of the organization ("false"). As many as 82.9% of the respondents confirmed that they distinguished profit that was calculated based on the concept of accrual accounting from cash flows (Table 17), and 77.2% of respondents gave the desired answer to the question related to the calculation of depreciation ("exactly EUR 100") (Table 18). Regarding the question related to knowledge of the leverage effect, 48.5% of respondents gave the desired answer (ROA < ROE) (Table 19).

The research question that referred to attending training unequivocally indicated that formal education and training in the field of financial management in health organizations are completely neglected. Less than 20% of the respondents had some form of formal education in this area. Despite the fact that many higher education and consulting institutions offer programs of this type in Serbia, there was still a noticeable lack of advancement and presence of staff who have been trained in the field of finance. The results of this study and other studies confirmed that the Serbian health care system is being transformed only gradually and incrementally [83].

Below, the results of the research using the comparative method for the private and public sectors are presented (Figures 1–9). The distribution of answers to the questions was as follows:

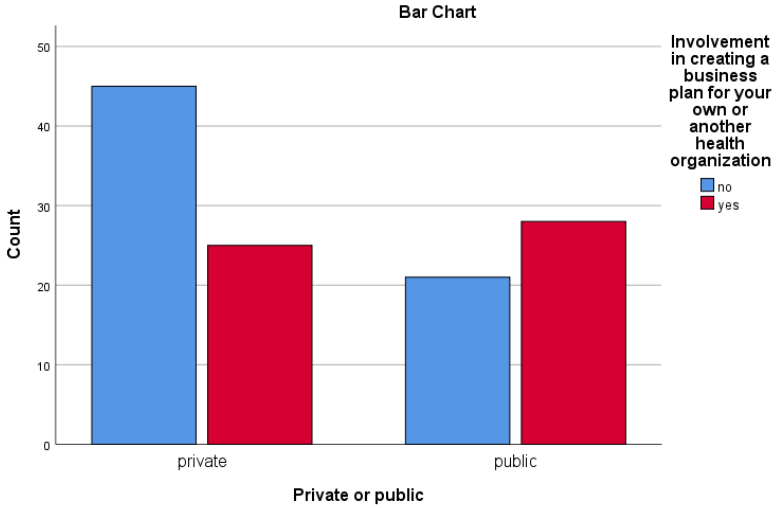

Figure 1. Respondents' knowledge of the content of the business plan: private vs. public sector. Source: Authors.

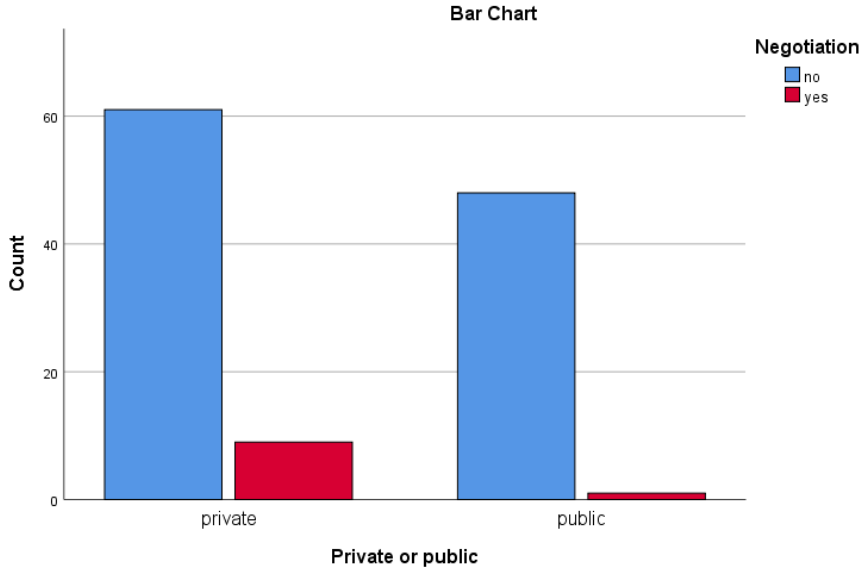

Figure 2. Areas of management according to importance for decision making. Source: Authors.

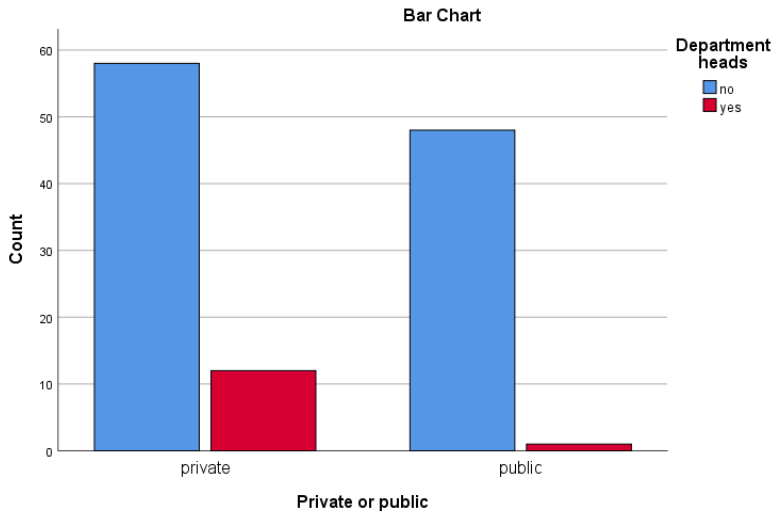

Figure 3. Involving staff in the financial planning process: private vs. public sector. Source: Authors.

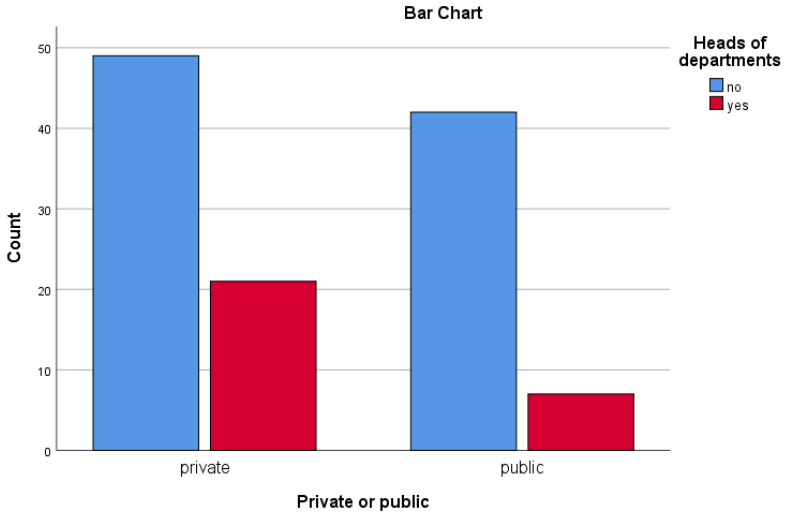

Figure 4. Involvement of staff by the heads in the decision-making process: private vs. public sector. Source: Authors.

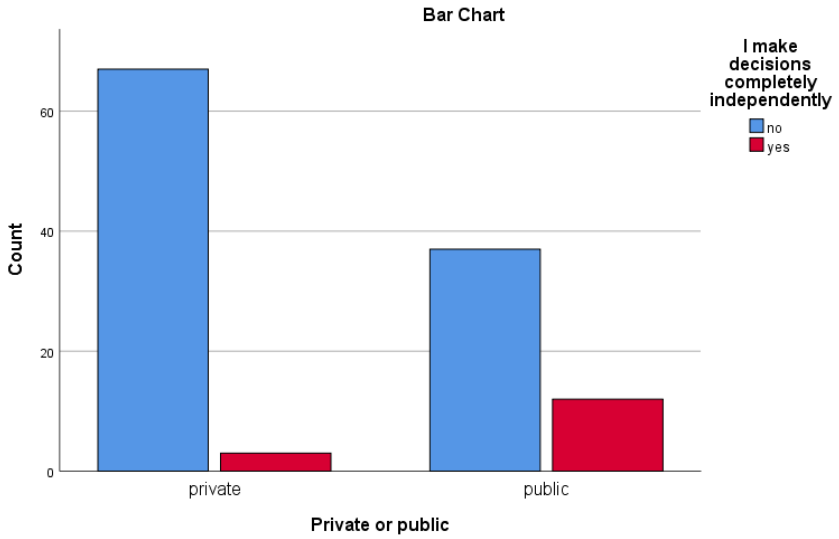

Figure 5. Independence in decision making: private vs. public sector. Source: Authors.

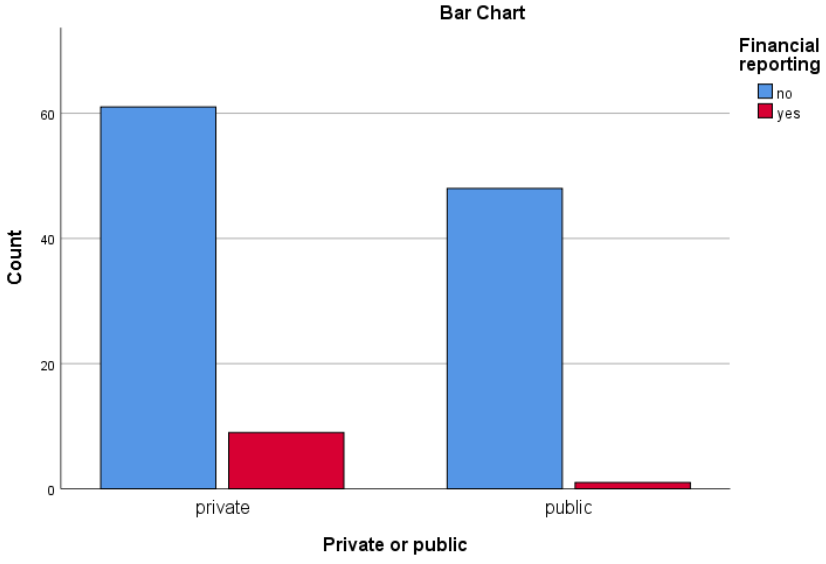

Figure 6. Importance of financial reporting: private vs. public sector. Source: Authors.

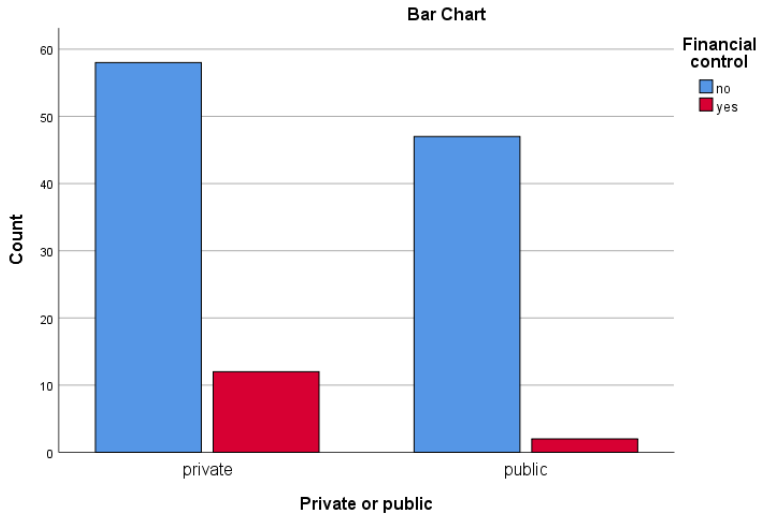

Figure 7. Importance of financial control as a part of financial management: private vs. public sector. Source: Authors.

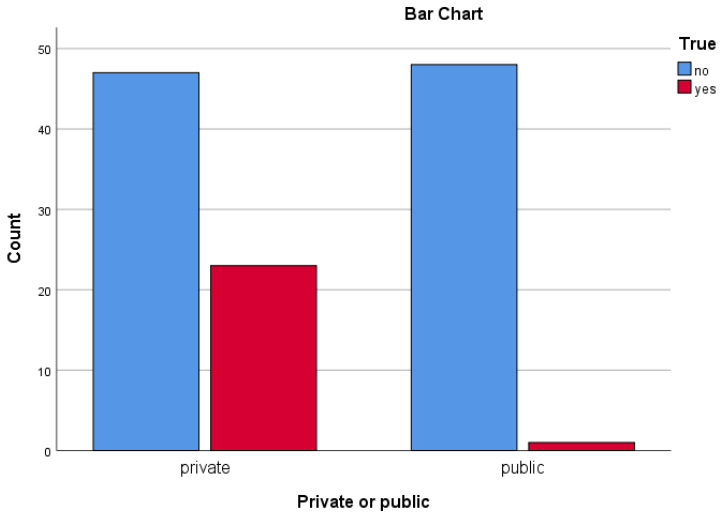

Figure 8. Attitude toward lending: private vs. public sector. Source: Authors.

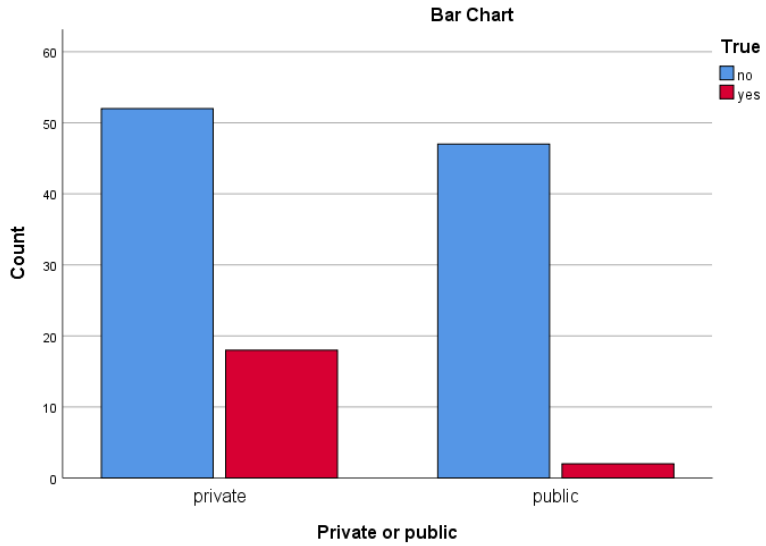

Figure 9. Attitude toward the importance of revenues (sales) for financial health: private vs. public sector. Source: Authors.

In comparing private and public institutions (Figure 1), the Chi-square test showed that employees in public institutions were significantly more frequently involved in creating business plans ($p = 0.021$).

In terms of the comparison of private and public institutions (Figure 2), Fisher's exact test showed that employees in private institutions had a significantly higher belief that negotiation was the most important area in terms of making business decisions and conducting the management process in health institutions ($p = 0.045$).

Regarding the comparison of private and public institutions (Figure 3), the Chi-square test showed that employees in private institutions had a significantly higher belief that department heads were the most involved staff members in the financial planning process ($p = 0.009$).

Regarding the comparison of private and public institutions (Figure 4), the Chi-square test showed that employees in private institutions had a significantly higher belief that heads of departments were the most commonly consulted staff members by the heads of health institutions when making business and financial decisions ($p = 0.047$).

In comparison with private institution employees (Figure 5), the Chi-square test showed that employees in public institutions more frequently made decisions completely independently ($p = 0.001$).

Fisher's exact test (Figure 6) showed that financial reporting was considered the most important financial issue for health institution heads significantly more often among private institution employees, compared to public employees ($p = 0.045$).

The Chi-square test (Figure 7) also indicated that private institution employees had a stronger belief that financial control was the most important area of financial management around which to organize trainings with the aim of improving management in health care institutions ($p = 0.030$).

The Chi-square test (Figure 8) indicated that private institution employees had a stronger belief that having no debt is always a desirable situation for an organization ($p < 0.001$).

The Chi-square test (Figure 9) indicated that private institution employees had a stronger belief that if sales are growing, the organization is healthy ($p < 0.001$).

Along with the answers to the research questions, auxiliary questions were important in defining the future directions of the financial education of managers when comparing private and public health care organizations.

5. Discussion

This paper significantly contributes to increasing the funding of knowledge about the competencies of managers in health organizations. The *scientific papers* so far, especially ones related to competencies in the health system of Serbia, have been limited.

Improving the financial knowledge and competencies is high on the agenda of many institutions and organizations in society. The studies elaborated on in this thesis unequivocally indicated that individuals who have greater financial competencies can improve their own well-being and that of the organization in which they are employed. Bearing in mind that the leaders of health care organizations are not required to have any formal or informal training in financial management, and most often they do not have any at all, a special imperative is determining what and how big their competencies are for adequate and functional management of the organizations entrusted to them.

To summarize, within the primary research, six research questions were posted to the participants. As displayed in the results of the primary research, the responses to research question RQ1 unequivocally indicated that formal education and training in the field of financial management in health care organizations is poorly represented, so it is necessary to strengthen formal training in the field of finance. When it comes to research question RQ2, the results indicated that the managers of health care organizations are actively involved in financial planning, and lawyers are also intensively involved. When it comes to research question RQ3, it was determined that the managers of health care

organizations are insufficiently involved in financial reporting, while when it comes to making financial decisions, they receive the most support from the heads of economic and financial services (a high degree of independence is not represented). As part of the research question RQ4, it was observed that managers do not know professional financial terms well enough, that is, financial language, but also that they give priority to knowledge in the fields of financial planning and cost management. The responses to research question RQ5 showed that the managers of health care organizations do not have adequate knowledge, as well as them lacking the necessary experience in developing business plans. Finally, findings from research question RQ6 indicated that managers of health care organizations are selectively familiar with complex financial structures. It was identified that there is a better understanding when it comes to complex financial constructions related to borrowing, the impact of revenue on the financial health of the organization, the difference between accounting and cash flows, and depreciation as a non-cash expense. The exception was insufficient knowledge of the leverage effect and consideration of the impact of ROA and ROE.

The auxiliary questions indicated that financial planning is a predominantly important area and that it is necessary to improve the knowledge of managers of health care organizations through further education and training.

In a comparison of the private and public sectors, the results of the survey showed several things. In the public sector, greater participation in the elaboration of business plans was observed, and decisions are more frequently made completely independently. The following was observed for the private sector: that negotiation and financial control are particularly important for the improvement of the management process; that employees in private institutions are more convinced that the heads of departments are the most involved in the financial planning process, that the heads of departments are the most-frequently consulted personnel of managers of health institutions in business and financial operations; and that financial reporting is more often considered the most important financial issue for the managers for of health facilities in private institutions. Furthermore, employees in private institutions showed an insufficient understanding of the impact of debt on the organization, as well as the level of significance of sales growth for the financial health of the organization.

Financial management should also be integrated into the strategic management of health care organizations. Narrow-minded financial goals, such as profitability, do not have to be the backbone, at least not in nonprofit organizations. In profit-oriented health organizations, the goal is profit and the means of reaching the goal is the quality of the health services. In non-profit-oriented health organizations, the goal is the quality of the services and the means of fulfillment is financial sustainability. Therefore, regardless of the ultimate goal, financial management is an existential requirement in health care.

There are multiple implications of this research. From the academic point of view, the most significant implication refers to the fact that records on the financial abilities, knowledge, attitudes, and needs of health organizations' managers have so far been a neglected topic, especially in geographical terms. In Serbia, the topic of financial competencies has been discussed in academic publications, but not in the specific sense of health workers. Another important scientific implication is the development of a research instrument which, with further adjustments and improvements, will be a good general framework for comparing the existing financial knowledge with the need for financial knowledge in health care.

The practical implications relate to the need for further development of the competencies of health managers. They relate primarily to the need for curriculum development in financial subjects, both at the level of formal undergraduate study and at the level of individual training and lifelong learning systems. In addition, separate methods of training managers are needed, such as the simulation presented by Uhles et al. [84]. In Serbia, the idea of introducing economic and financial subjects and even study programs in these areas has been developed to some extent. The second element related to the development of

necessary training can, to some extent, improve competencies despite the coverage being relatively modest [85]. The recommendations made by Bjegović-Mikanović et al. [86], by an analogy with the development of a leadership curriculum among European health professionals, can also be used to support the above statement.

Financial management, by its nature, is not a basic competency that a health care institution manager should have. It is a necessary skill in modern, dynamic environments that affect the health system and each health care organization. Any additional knowledge about the gap between these needs and actual competencies could significantly improve both the science and the profession. A significant fundamental limitation of the paper is related to this.

Organizations operate in a business environment that requires improved capital allocation efficiency, and for that, it is necessary to understand the importance of financial capabilities in order to properly apply financial knowledge that will contribute to the sustainability of health care organizations. Financial literacy is recognized as essential for managers in the process of making decisions in a dynamic and turbulent environment. Finally, increasing financial literacy could have a major impact on the more efficient management of resources in organizations in the private and public sectors.

The effect of the financial literacy (awareness, attitude, and knowledge) of managers on their performance (financial and non-financial) is always an issue. Among other things, this study's findings have various implications for future health policy makers. Financial education could enhance financial literacy by increasing financial knowledge, skills, and attitudes. Policy makers should raise awareness about financial literacy, regardless of the management level. One way is through the implementation of national strategies for financial education, among other things, in the field of health. Financial literacy can contribute to sustainable development by improving financial inclusion. Capacity-building programs are therefore recommended for increasing financial literacy among managers in health care organizations in Serbia.

6. Conclusions

Given that the topic is not sufficiently exhausted and (especially in Serbia) has not been updated, there is a significant lack of material available for secondary research. Consequently, a number of factors that may influence the development of the financial competencies of health care managers may be excluded from the analysis. Further research should broaden horizons and point to the possible causes, consequences, and recommendations for improving financial competencies among health care professionals.

Another important strength of this paper is the development of an original instrument for collecting primary data. The reason for this is the lack of existing instruments and measurement scales for determining the financial competencies of managers, especially health care managers. There is another important limitation associated with this power. Further studies should form more precise and scientifically based approaches for collecting and analyzing data in this area.

The third important strength of this paper is its empirical character. However, this is also the main drawback. Because of the relatively small sample size, any more complex statistical method for analysis could not be applied. Further research should develop the sample both horizontally (by increasing the number of respondents) and vertically (to take into account lower hierarchical levels of management in health care). The stated reason is important because of the understanding of the evolutionary characteristics of the financial competencies of Serbian health care managers.

This study is not exempt from limitations. The first limitation is that it was not possible to compare the research results with similar research in other countries in the region. The second limitation concerns not including financial literacy as a specific component of human capital, which allows a manager to make adequate financial decisions.

Further research may consider identifying critical factors for improving the financial literacy of managers in health care organizations. Future research directions can include the

development of a conceptual model for improving financial literacy and the financial skills of managers in health care organizations, which would support their financial sustainability.

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Conflicts of Interest: The authors declare no conflict of interest.

Appendix A. Research Questionnaire

Q1. I am employed in a health care organization in the
(a) Private sector
(b) Public sector
Q2. The managerial duties I perform refer to
(a) Top management
(b) Middle management
(c) Lower management
Q3. Have you attended any type of training in the field of financial management in health care organizations?
(a) I have attended
(b) I have not attended
Q4. Taking into consideration that you hold a management-related role, which of these factors are important for making business decisions and conducting health care institution management, according to your opinion?
(a) Employees' motivation
(b) Negotiation
(c) Financial management
(d) Project management
(e) Public relations
(f) Public procurement
Q5. Do you participate in the financial planning of your institution?
(a) Yes
(b) No
Q6. Who is enrolled in the financial planning process? (one or more answers)
(a) Financial service chief
(b) Legal expert
(c) Department chiefs
(d) Somebody else
Q7. Do you participate in creating the necessary internal financial reports (reports that are not required by law, but are the result of your internal need for keeping information)?
(a) Yes
(b) No
Q8. While making finance-related business decisions, whom do you consult? (one or more answers)
(a) Financiers and accounting chief
(b) Secretary
(c) Department heads
(d) I make decisions completely on my own

Q9. Are you familiar with the financial indicator "rentability threshold" and what it represents?

(a) No, I am not familiar with that term

(b) Yes, I am familiar with that term.

Q10. Are you familiar with the contents of a balance sheet and income statement?

(a) Yes, in general

(b) Yes, in detail

(c) No

Q11. According to your opinion, which financial issues must be known by managers in health care organizations?

(a) Financial planning

(b) Cost management

(c) System of taxes and deductibles

(d) Financial reporting

Q12. Have you ever been enrolled in creating a business plan for your or someone else's health care organization?

(a) Yes

(b) No

Q13. Are you familiar with the contents of a business plan?

(a) Yes

(b) No

Q14. Which of these managerial processes do you consider the most important?

(a) Financial planning

(b) Financial analysis

(c) Financial control

(d) Financial reporting

(e) Financial decision making

Q15. Choose the areas of financial management that should be the main topics for future educational events to improve management in health care organizations.

(a) Financial planning

(b) Cost management

(c) Public procurement

(d) Financial control

(e) Financial indicators

Q16. "To have no debt is always a desirable situation for an organization."

(a) True

(b) False

(c) I don't know

(d) No answer

Q17. "If sales are growing, the organization is healthy."

(a) True

(b) False

(c) I don't know

(d) No answer

Q18. "If at the end of the year a business has more cash than at the beginning of the period, the business has generated a profit."

(a) True

(b) False

(c) I don't know

(d) No answer

Q19. An organization has just bought a piece of equipment that cost EUR 500. This equipment is going to be used for 5 years. The profit of the current year will be reduced by

(a) More than EUR 100

(b) Less than EUR 100

(c) Exactly EUR 100
(d) I don't know
(e) No answer

Q20. The return on assets is called ROA and the return on equity inverted into the business by shareholders is called ROE. In general, the level of debt is more sustainable if
(a) ROA > ROE
(b) ROA < ROE
(c) ROA = ROE
(d) I don't know
(e) No answer

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