

JOINT INVESTMENTS OF THE REAL ECONOMY AND HEALTHCARE INSTITUTIONS IN THE REPUBLIC OF SERBIA

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Abstract: *The study presents the importance of joint financial investment between two forms of organizing the economy, more precisely between the real economy and healthcare with the aim of improving both business and the provision of health services to the population. The aim of the work was to reveal the existence of a difference in the total*

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income generated on the basis of a joint financial investment in such a business. The work was done because there was a need for practical research that would clearly show the existence of differences regarding the formation of profits of two different organizations of economic activities. The basic results reached by the authors in this paper indicate that it is possible to predict the formation of total profit based on total income and total costs in the business of real economy companies on the one hand, and on the other hand that predicting future profit is even more reliable in the business of health institutions that are opted for joint financial investments with companies from the real economy.

Keywords: joint venture, real economy, health care, facilities, profit.

INTRODUCTION

Joint investments are created with the aim of achieving ambitious goals that are primarily of an economic nature in the business of numerous legal entities.

First of all, joint financial investments should be viewed from multiple levels, such as investments that may arise between several countries, but also in regular business between numerous heterogeneous legal entities that enter into business with joint investments.

The macroeconomic observation of joint ventures between companies operating in the territory of several countries is mainly based on the inequality that exists between several countries, such as the unequal number of employees, different production capacities, different natural conditions and the existence of natural resources as a basis for economic activities.

The next level of observation is the observation of the reasons why it arises between different legal entities, that is, numerous studies indicate that it is necessary to respect the existing resources at their disposal, which are undertaken with the aim of realizing the benefits that can arise from joint financial investments.

In most cases, joint investments within the business of several companies are created on the basis of mutual benefit, that is, they are realized on the basis of the achievement of the optimal first of all basic economic factors affecting the overall business.

In recent years, the existence of the process of joint financial investments that arise between different legal entities operating in different economic activities has been observed, all with the aim of maximizing the achievable profit.

An innovative approach could be in observing two heterogeneous categories of legal entities. That is why the goal of the authors of the study was set to investigate financial investments between representatives of the real economy and health institutions, which was carried out with the aim of realizing the benefits from the observed investment.

Acknowledging the stated propositions, the authors defined the Hypothesis. Hypothesis H: 1, that there is no difference in the formation of total income, total costs and profit that arises in relation to joint investment between two forms of economic entities, that is, companies that operate in the field of real economy and health institutions.

LITERATURE OVERVIEW

In theoretical approaches, there are numerous works that focus on investments, primarily financial investments within the observation of the health system, such as works that indicate the influence of public and private institutions on processes (Lysandrou et al., 2016). However, business investments in the Eurozone countries are highlighted as investments of great importance, which can be seen in the works of authors such as (Consolo et al., 2018). In addition, there are authors who direct their focus on the financing of public investments that are viewed from a national perspective (Fadiran, 2019), which is even more important when the results of such activities in the strongest economies are indicated, which is visible in works such as (van Klyton et al., 2019), (Zhang et al., 2016) as well as within significant organizations such as the OECD countries, as emphasized by authors such as (Shin et al., 2019).

However, such an overall observation also has a large dose of individualism in the observation of investments in public institutions, which can be seen in works such as (Zhang et al., 2020), i.e. even within sub-national investments, as pointed out by the authors (Karst et al., 2021), that is, in works focused on the observation of Latin American countries, which can be seen in the author (Jung & Melguizo, 2022).

Financial investment jobs are connected with internal audit processes, as pointed out by the author (Popović, 2016), which is also seen in the author's work (Hayat, 2019) with the emphasis that it is necessary to pay attention to investing in economic activities, as well as to corporate governance, which the authors pointed out in their work (Agyei et al., 2022), especially if it concerns modern trends of the green economy type, which can be seen in the work of the authors (Mo et al., 2022).

Joint investments can very quickly lead to the transformation of entities, which can be seen in works such as (Edenhofe et al., 2022) as well as in the work of the author (Erdoğan et al., 2023), where there is still a greater emphasis on the security of investments that arise in real business.

RESEARCH RESULTS AND DISCUSSIONS

For the purposes of the research, a survey was completed by top managers from 184 surveyed subjects, that is, 74 top managers from companies operating in the real economy, as well as 110 top managers of health care institutions. The period in which the data was collected was from 01.04 until 30.04, 2024 on the territory of the Republic of Serbia. The evaluation interval of the top managers ranged from 1-10, with the lowest level of evaluation being 1, and the strongest belief expressed with 10 based on the joint investment between the mentioned entities. After the survey, the authors performed statistical data processing and analysis using the Statistical Package of Social Science, version 25. In addition, the authors applied a t-test in the paper to examine the differences in the evaluation of top managers who lead companies from the real economy and the evaluation of top managers health institutions. Regression analysis was applied to predict profits based on total revenues and total costs. A level of 0.05 was used for the threshold value of significance.

The results are grouped into three parts.

The importance of establishing a realistic representation of joint investment between the real economy and health institutions

Joint investments in order to realistically see the joint investment between the real economy and health institutions are presented by the authors in Table 1.

Table 1. *Presentation of the differences obtained based on the evaluation of the top management of companies in the real economy and the evaluation of the managers of health institutions*

	Enterprises of the real economy	Health organizations	t	p
	Middle value			
Total income	5.06 ± 0.56	5.15 ± 0.75	-0.895	0.372
Total cost	4.00 ± 0.87	3.79 ± 0.78	1.599	0.112
Profit	1.06 ± 0.56	1.36 ± 0.48	-3.594	<0.0005*

Source: Authors, 2024.

From the presentation in Table 1, it can be seen that there is a significant difference in the category of profit formation, where managers from health institutions had more confidence in joint ventures, i.e. they rated such business with higher ratings compared to the evaluation of top managers who come from the real business sphere. As another point of view, it could be stated that there is no significant difference for the incomes and expenses thus formed. Hypothesis H: 1 is partially accepted, that is, there are no differences in the formation of total revenues and total costs, while there are significant differences in the formation of profits comparing joint investments between companies of the real economy and health institutions.

The importance of making a valid business decision in real business was the assumption of authors such as (Arnautović et al., 2021), which was confirmed by the results obtained after the presentation of the obtained results in the previous table, i.e. based on the presentation of the impact of top management's valuation on investments in two different forms of organization economy, which coincides with the views of the authors who indicated the importance of investment and economic development (Li et al., 2023). Similar views were expressed in their work by the authors (Radović et al., 2023) who emphasized the importance of financial investment in the public sector, which the authors of this work fully appreciated in the setting of this work, and the obtained results confirmed the statements made about the importance of financial investment which are undertaken by health institutions in order to optimize operations, noting that the importance of financial investment in the real economy should not be omitted, as the authors pointed out (Yu & Jo 2022).

Forecasting the total profit based on the total income and total costs of companies in the real economy

In the study, research was set up that used multiple linear regression to examine whether it is possible to predict the formation of total profit for companies in the real economy based on the observation of joint ventures based on total revenues and costs.

A coefficient of determination of 0.842 was obtained by regression analysis. Therefore, it can be seen that the obtained model describes with 84.2% of the total variance the value of joint investments of the mentioned entities. Total profit can be predicted based on total income and expenses as the model is significant as the rejected values ($F=183.604$, $p<0.0005$) confirmed it.

Table 2. *Forecasting the formation of total profit in real economy companies*

	Beta	t	p
A constant	-	2.183	0.032*
Total income	0.768	12.770	<0.0005*
Total cost	-1.148	-19.101	<0.0005*

Source: Authors, 2024.

Based on the results shown in Table 2, it can be seen that the total revenue and cost have a significant impact on the prediction of profit for real economy companies based on joint ventures with healthcare institutions.

Acknowledging the needs of the real economy for complex financial investment was the premise of numerous authors such as (Popović et al., 2017; Golub et al., 2019), which was essentially acknowledged in this paper, but a step was taken that differs from the author's views. such as (McConnell et al., 2021) who focused on the analysis of classic credit relationships in business; with a note that in no segment do the results of the work contradict the results obtained by authors such as (Radović et al., 2019; Thomas-Miskin et al., 2022) who emphasized the importance of financial investment and the implementation of internal controls in legal entities that introduce financial investments into business with the expectation of gaining benefits from such business, which can be seen in works such as (Li et al., 2024).

Forecasting total profit based on total revenue and total costs for health care institutions

The research used multiple linear regression. The goal of such application of regression was to see if the examination of future total income and expenses can be predicted by forming the total profit for health institutions on the basis of joint ventures with enterprises of the real economy.

Using regression analysis, the coefficient of determination was obtained, which was 0.999. This indicates that the obtained model describes with 99.9% of the total variance the prediction of joint ventures between companies of the real economy and health institutions.

Table 3. *Prediction of the total profit of healthcare organizations created by joint investment with companies of the real economy*

	Beta	t	p
A constant	-	5.123	<0.0005*
Total income	0.869	16.120	<0.0005*
Total cost	-1.282	-21.208	<0.0005*

Source: Authors, 2024.

The obtained results in Table 3 indicate that the total profit can be predicted based on the total income and expenses, since the model is significant ($F=327.125$, $p<0.0005$). It can also be seen that the total income and cost have a significant impact ($<0.0005^*$) on the prediction of profit for healthcare organizations created on the basis of joint ventures with enterprises of the real economy.

CONSLUSION

The first conclusion would be that there are no significant differences in the total revenues generated from joint ventures of real economy companies with health institutions. This is indicated by the obtained value for total income ($p = 0.372$) as well as the obtained value of total costs ($p = 0.112$), while there are significant differences in the formed profit based on joint investment between the real economy and health institutions, because the obtained value for profit ($p<0.0005^*$), as shown in Table 1.

The second conclusion would be that it is possible to predict the formation of total profit based on total income and total costs of companies in the real economy, with 84.2% of the total variance based on joint investments of the mentioned entities. The prediction of the total profit can be predicted with certainty because the obtained values are such ($F=183.604$, $p<0.0005$) which is visible in Table 2.

The third conclusion would be that the future formation of total profit can be predicted on the basis of the formed values of total income and costs in the resulting joint investments of health institutions with enterprises of the real economy, because the obtained model describes it with 99.9%, since the model is significant ($F=327.125$, $p<0.0005$).

Therefore, taking into account the views of numerous authors, the importance of joint investments in order to optimize business has been confirmed. This paper, in the opinion of the author, showed innovation in the comparison of two important categories of legal entities in this matter, i.e. companies that operate dominantly in the real economy and health institutions, and both categories have the opportunity to derive benefits from joint investments that are visible in the category of income, costs and get. Therefore, the formation of key economic categories (income and costs) has a significant impact on the prediction of profits in the business of health institutions and the real economy based on joint investments, which generally should be further observed in future research by introducing a comparison between the benefits of joint investments and classic financial credit in business between domestic legal entities as well as in business with foreign legal entities, and all in the context of welfare and benefits in relation to patient requirements.

CONFLICT OF INTEREST

None is declared.

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ZAJEDNIČKA ULAGANJA REALNE PRIVREDE I ZDRAVSTVENIH USTANOVA U REPUBLICI SRBIJI

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Sažetak: U studiji je dat prikaz značaja zajedničkog finansijskog ulaganja između dva oblika organizovanja privrede, preciznije između realne privrede i zdravstva, sa ciljem poboljšanja kako poslovanja tako i pružanja zdravstvenih usluga stanovništvu. Cilj rada je bio da se otkrije postojanje razlike u formiranim ukupnim prihodima nastalim na osnovu zajedničkog finansijskog ulaganja u takvom poslovanju. Rad je nastao zato što je postojala potreba praktičnog istraživanja koja bi jasno pokazala postojanje razlika u pogledu formiranja dobiti dve različite organizacije privrednih aktivnosti. Osnovni rezultati do kojih su autori u ovom radu došli ukazuju da je moguće predvideti formiranje ukupne dobiti na osnovu ukupnih prihoda i ukupnih troškova u poslovanju preduzeća realne privrede sa jedne strane, a sa druge da je predviđanje buduće dobiti još sigurnnije u poslovanju zdravstvenih ustanova koje su se opredelile za zajednička finansijska ulaganja sa preduzećima iz realne privrede.

Ključne reči: zajedničko ulaganje, realna privreda, zdravstvene ustanove, dobit.