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## Article

# Capital investments and financial profitability

UTMS Journal of Economics

## Provided in Cooperation with:

University of Tourism and Management, Skopje

*Suggested Citation:* Baresa, Suzana; Bogdan, Sinisa; Ivanovic, Zoran (2016) : Capital investments and financial profitability, UTMS Journal of Economics, ISSN 1857-6982, University of Tourism and Management, Skopje, Vol. 7, Iss. 1, pp. 49-59

This Version is available at:

<https://hdl.handle.net/10419/174143>

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*Preliminary communication*  
(accepted December 15, 2015)

# CAPITAL INVESTMENTS AND FINANCIAL PROFITABILITY

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## Abstract

Economic life of achieving economic and financial effects of an investment opportunity presents the period in which selected investment option remains economically superior from the other alternative investment opportunity. Time period in which the investment project needs to prove its justification, presents an extremely critical factor in the profitability of the investment project, therefore, special attention must be paid to the assessment of the economic and financial time period. The aim of this study was to prove that critical factor in achieving profitability is in direct relation with economic or financial life. The results which arise from this study suggest on the fact that during analysis investor must determine financial life to achieve economic and financial effects of capital investment, because the length of the economic life does not have to match the profitability or with financial efficiency, and that is not appreciated sufficiently in practice. This paper presents examples of calculating the financial profitability of capital investment, using the residual value, ie the discounted residual value and the results of empirical studies that show the difference in preference of life effectuation of capital investment between theoreticians and practitioners in the field of capital budgeting.

**Keywords:** net cash flow, discounting, economic life, financial life and residual value.

*Jel Classification:* G31

## INTRODUCTION

In a broad sense, investments can be defined as putting money in material and financial resources in the economic and non-economic activities or transforming these funds in securities and other legal rights for the acquisition or increase in profit. “Investing can be in the form of financial assets or an equivalent investment, or in the form of real asset that enable the realization of economic benefits or profits through certain productive

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business activities.” (Orsag and Dedi 2011, 15) “The decision to invest in privately financed infrastructure projects requires careful consideration, because they are exposed to high levels of financial, political, and market risks (Ye and Tiong, 2000, 227).

*Real investments or investments in real capital or capital investments or just investment projects*, assume investments in tangible assets and unlike the financial investments their purpose is not holding and realization of returns, purpose of investing in tangible assets is in productive use to perform certain business activities. Determine the size of the investment in specific assets and their returns (due to specific and numerous problems) is much more complex than assessment of economic and financial efficiency of financial investments.

*Decisions on capital investments*, especially in real business assets represent an important, complex and life-giving role of financial management and due to the fact that such decisions have long-term effects on the economic and financial position, financial performance, stability and business growth of corporation, especially in terms of scarce and limited financial resources. “Analysis for investment decision by firms has become more sophisticated largely through use of mathematical models and computers to solve them” (Weingartner, 1966, 65). “Such decisions include inflows and outflows of money for several years, and they are related with long-term investment in the company called the capital budgeting decisions” (Hilton 1991, 639). In capital investment very specific is the lag between the moments that represent the beginning of investment and moment of the exploitation of the expected returns of investment—it is relatively long time (may be several decades). Theory and practice of financial management, due to the *volume of investment and the time limit* in which the capital is engaged, decisions on capital investments are considered to be significant and crucial for future business growth of corporation (Bierman and Smidt 1993, Baldwin and Clark 1992). When we add to the mentioned reasons (the volume of investment and time), the *permanent limitation the and lack of capital* for investment and its price, then it is clear that financial management must carefully consider all possible alternative capital investments, and alternative investment opportunities.

The cash flow projection of the elements of the investment opportunity is a very complex problem in terms of risk, uncertainty and indeterminacy, especially when it comes to investment opportunities with a longer economic life of achieving economic and financial effects. Observing the time period from the beginning of investment project realization (characterized by negative cash flows) to the period of the realization of expected current net cash flows from operating investment project, it can be concluded that *temporal distance affects the efficiency of the investment project*. Namely, as the length of the effectuation period (expected current net cash flows) is more distant from the present, their time value at present is less, so they contribute less to the effectiveness of the investment project. Therefore, the interest of the business entity is to realize the return on investment as soon as possible, because of the time value of money and uncertain future period and the uncertainty that the return on investment will accomplish goal.

## 1. CASH FLOWS OF CAPITAL INVESTMENTS

In considering the cash flows of the investment opportunity, the interest of a business entity is incremental change that will appear between the expected total cash incomes if

the investment opportunity is accepted and the total cash receipts from business operations if an investment opportunity is not accepted (analysis of differences cash flows with and without project).

The methodology of planning and determining of the net cash flows from the exploitation of an investment opportunity begins with assessment of the annual expected incomes and expenses from business operations in the variants if the investment option is accepted, or if it is eliminated on the basis of expected sales or providing services through the exploitation period of investment opportunity. According to the defined optimal sale of products and / or services, capacities are harmonizing which inevitably defines the size of the initial capital investment, and the residual value of the investment project. Except the initial investment in fixed asset, initial investments are considered to be investments in the permanent current assets or net working capital, whereby the residual value of permanent liquid asset is expected not only at the end of the investment project, furthermore the release of net working capital is done continually throughout the economic lifetime of the investment project. In estimating the expected net cash flow from the investment project, at the end of economic life, it opens up the possibility for realization of cash receipts from the *residual value*, which after deducting the amount for tax expenditures, presents an increase of expected cash receipts.

The net *residual value* (residual value of permanent current assets and fixed assets) and net residual value is equal to the expected amount of cash flows that will be released when the investment project is over or liquidated. Since each investment project has its estimated economic life, at the end of that time horizon, will remain the land, buildings, equipment, current assets, etc. that after the exploitation at the end of effectuation can be sold or available to company for another alternative use. The residual value of the project is actually the value at its end, which affects on both the financial and the economic potential of the investment project.

*Net cash flows* are estimated on a way that we from the estimated cash receipts subtract estimated cash expenditure, and result represents the expected annual net cash flow based on the production of the product and / or service provision. In many cases this is the most that the financial investigation can present. Detailed research on the sales outlook and expected cash outflows, often at the end reveal that those sizes which offer planned possibility of realizing a large net income, do not really provide the real expected financial results.

A business entity makes a capital or investment expenditure in some investment option with aim to compensate (cover) committed expenditure, but also to achieve a satisfactory yield through expected annual net cash flows and net residual value after its liquidation.

The primary purpose of business decision-making consists in the fact that the limited capital must be invested in the investment option that will allow to the corporation to fully and more successfully achieve their economic and financial goals.

The theory of financial management and investment analysis insists that the relevant advantages and disadvantages of investments in business asset express the differential cash flows. In relation to this, it is necessary to bear in mind that the plan of relevant cash flows of some investment opportunities consists of four quantities which are necessary to assess. These quantities, are carried through: (1) *the amount of the initial capital investment* necessary for the performance of certain investment opportunity, as well as any subsequent investment in the same investment option; (2) *the net annual cash flows* expected from the investment opportunities—annual financial benefits flow in the period

of achieving economic and financial effects of discussed investment opportunity; (3) *residual value* of investment opportunity; and (4) *the economic lifetime* of the investment opportunity effectuation.

## 2. ECONOMIC VS FINANCIAL LIFE IN TERMS OF COST EFFECTIVENESS OF THE CAPITAL INVESTMENTS

Typical investment opportunities assume previous investments of cash or financial resources which are typical for the investment period in order to ensure "the collection" of the expected positive effects of investments in the future for an exploitation period of the investment opportunity. The economic life of the project assumes the period from the moment when the investment project was put into operation and generates the expected benefits and creates positive effects to its closure and liquidation. Many authors have this economic period called the period of achieving economic and financial effects of investment opportunities that does not make any substantial difference since they imply the time in which a project is put into operation within a certain time horizon operates and generates positive effects. For each investment option it is positive if the economic life of the investment opportunity is longer, but considering that the subject of our research is financial efficiency, it can be shown that the *length of the economic lifetime of the investment project does not match the profitability and financial efficiency* of specific investment opportunities, which is mainly considered during evaluation and ranking of individual investment opportunities. More about investment project life find in Gryglewicz, Huisman and Kort (2008). Therefore, in the literature are meet two aspects of defining the exploitation of investment opportunity, and from the *economic aspects*, and from the *financial aspect of the duration of the investment project*.

Under the economic (useful, productive) lifetime of project it is usually involved a period in which we can expect the benefits of the investment—the exploitation of the project, ie the period where the investment will remain economically superior from the alternative investments that would serve the same purpose.

Time determination at which the project must prove its justification is a critical factor in profitability (Hunt, Williams, and Donaldson 1977, 154). Determination of the economic life of the project in contemporary business conditions that are characterized by permanent, economic, tax, political, natural, technical, technological and other changes, would meant forecasting of expected results, and benefits in the distant future, which is a very critical element of investment analysis since the time in which the investment opportunity will achieve expected benefits is very difficult to predict.

*The economic aspect* of some investment opportunity is determined by the period for which it is estimated that the investment opportunity will during its lifetime generate positive economic effects, this is conditioned by the economic profitability of using investment opportunities. Measuring the economic impact is based on measuring the size of revenues and costs and measured the realized profit.

For an investment option it must be determined economic lifetime of achieving effects, in that period investor must predict annual revenues ( $P_t$ ) which have to be higher than the annual expenditures or costs ( $C_t$ ) which does not include amortization or it can be determined by the period in which investment option achieves positive results: profit or gain  $P > 0$  ( $P = P_t > C_t$ ).

*The financial aspect* of achieving the financial effects of some investment opportunity throughout the financial guidelines, determines that the cash inflows and cash outflows are used to achieve positive net cash flows (discounted cash flow). *Economic aspect* of investment opportunity depends directly on the financial aspect of the investment opportunity and that is the sum of the discounted cash flows which are realized in period of exploitation of an investment opportunity, which sum should be greater than the amount invested ( $V_t > 0$ ). The approval of this condition requires higher current cash receipts from current cash expenditures, in other words net cash flow must be positive. The condition will be correct if in each year during the realization of net cash flows is added note which is related to *cash receipts based on the residual value of the invested amount*. Thus formed the net cash flows are presented in the economic lifetime of the project, after a single discounting of every future annual net cash flow for the purpose of overcoming the time value of money, so the future values could be comparable with an initial invested money amount. This presents a solid scientific and professional financial basis for redefining economic life of the project.

When in the identification and assessment of exploitation length of investment opportunity are included the size of period necessary to achieve the effects of the financial aspect we may differ it from the economic exploitation life of the investment project. So, from an economic point, some particular investment option can in the upcoming year have a positive net cash flow, but from the financial aspect it can be considered that the assessed profitability of its further exploitation is negative.

Therefore, economic and financial aspects of the investment opportunity refers to whole period during realization of the effects of foreign investment opportunity, however: (a) from an economic point of view an investment option is acceptable as long as the total income is greater than the total cost, and (b) from the financial point of view investment option is acceptable as long as the cumulative amount of net discounted cash flows is greater than the amount invested.

According to *financial point of view*, based on the time value of the money, greater distance of residual value from the present represents at the same time larger loss of current value.

The financial way of thinking states that it is worth to exploit investment project only if the discounted value of net cash flow and residual value of the next period is greater than the residual value of the previous period. Therefore, from a financial point of view of project exploitation it is determined the time in which the discounted value of a net cash flow and residual value of the next period is less than the residual value of the previous period. In determining the potential economic life of exploiting of the investment project, the financial logic states that it is worth and in the next year eg. in 2021 to exploit the existing investment project if the sum of the net cash flow and residual values for the 2021 is discounted by one year back and the discounted amount must be greater than the residual value reported in 2020. If the amount is less, from a financial point of view in that year economic life of the project ends. This can be expressed as:

$$\frac{NCF_{t+1} + R_{t+1}}{1 + \frac{r}{100}} > R_t \quad (1)$$

$NCF_{t+1}$	Future net cash flow
$R_{t+1}$	Residual value — next year
$R_t$	Residual value — previous year
$t$	Year
$T$	Sum of years
$r$	Discount rate (10%)
$1 + \frac{r}{100}$	Discount factor or $q$ (1,1)
$\frac{1}{(1+r)^n}$	Discount factor for reducing the value of year $n$ at the year 0

In table 1 is shown on a hypothetical example, methodology of determining the period of achieving the planned effects of the investment project from the financial aspect.

An example has the logic of the established cash flows which are decreasing due to the expiry of the economic lifetime of profitability of exploitation. This example presents the logic of residual value of buildings and equipment which reduces due to its functionality from the originally established the invested amount ( $I_0$ ). Instead of the nominal amount, residual value of buildings and equipment is observed through their net present value after years of exploitation of the investment project (cf. Pfeiffer, 2004, Etgar, Shtub and LeBlanc, 1997, Baroum and Patterson, 1996). Weighted average cost of capital is 10%.

**Table 1.** Methodology of planning the investment project

No.			Description	Year							
				0	1	2	3	4	5	6	
				01.01.01	31.12.	31.12.	31.12.	31.12.	31.12.	31.12.	31.12.
A	P <sub>t</sub>	Revenue			16,000	28,000	39,000	45,000	57,000	53,000	
B	C <sub>t</sub>	Expenses			10,000	21,000	30,000	35,000	50,000	50,000	
1	CF <sub>t</sub>	Cash flows – at the end of the year			6,000	7,000	9,000	10,000	7,000	3,000	
2	I <sub>0</sub>	Initial capital expenditure		20,000							
2a	R <sub>t</sub>	Residual value of the initial investment expenditure at the end of the every year			17,000	16,000	14,000	10,000	5,000	1,000	
3	CF <sub>t+1</sub> + R <sub>t+1</sub>	Total annual cash flows at the end of each year (1+2a)			23,000	23,000	23,000	20,000	12,000	4,000	
4	$\frac{CF_{t+1} + R_{t+1}}{1 + k}$	Total annual cash flows at the end of each year discount at the beginning of the year			20,909	20,909	20,909	18,182	10,909	3,636	
		10% Discount factor – 0,909			0.909	0.909	0.909	0.909	0.909	0.909	
5	$\frac{CF_{t+1} + R_{t+1}}{(1 + r)^{t+1}}$	The discounted annual cash flows at the end of each year, discounted at the initial first year of investing, or on 0 year			20,907	18,998	17,273	13,660	7,452	2,256	
6	Discount factor	(10% 2 <sup>nd</sup> financial tables)		1.000	0.909	0.826	0.751	0.683	0.621	0.564	
7	Discounted cash flows (1x6)				5,454	5,782	6,759	6,830	4,347	1,692	
8	Cumulative discounted net cash flows				5,454	11,236	17,995	24,825	29,172	30,864	
9	$\frac{R_t}{(1 + r)^t}$	The residual value at the end of each year, discounted at the initial first year (2x6) (2ax6)		20,000	15,453	13,216	10,514	6,830	3,105	564	
10	Total	(8+9)		20,000	20,907	24,452	28,509	31,655	32,277	31,428	
	The net present value after years of exploitation of the project (NPV) - is discounted to the initial first year of investing (10-2)				907	4,452	8,509	11,655	12,277	11,428	
11	$\sum_{t=1}^6$ NPV	The sum of the individual 6 annual net present values after years of exploitation project on the initial year = PI = 49,228 / 20,000 = 2.46		49,228							

According to table 1 it is clearly indicated that at the end of the fifth year of investment project exploitation has achieved maximum return 12,277 monetary units of the net present value followed by a decline in returns for 849 monetary units (11,428–

12,277). This financial information indicates that no matter the economic lifetime of the project has provided in the next year positive discounted net present value of 11,428 monetary units, next year it will achieve positive reduced returns compared to the previous fifth year. According to financial point of view investor should stop with the exploitation of the investment project or start with a new phase in the project development, otherwise the project will inevitably enter in the zone of reduction of its total net present value.

Determination of the financial profitability or unprofitability of the planned period of investment opportunity exploitation it is possible to determine by the *method of the residual value* or with *method of discounted residual value*.

Based on the of residual value method, it can be defined the *financial profitability or unprofitability of the financial investment project* in the planned economic life of investment opportunity. As long as in the economic life of the project, the individual amount of residual value (buildings and equipment) on the last day of the previous year is *less than a single amount of total net cash flow* compared to the end of next year, investment project is cost effective. For this economic thought defined mathematical model would look like:

$$R_t < \frac{NCF_{t+1} + R_{t+1}}{1 + k} \quad (2)$$

When, in the economic life of the project, the individual amount of residual values (buildings and equipment) on the last day of the observed previous year is greater than the individual amount of the total net cash flow  $R$ , compared to the the end of the next year (where are included: cash flow and residual value of buildings and equipment of current year). Using the discount method, discounted value is estimated to the start of the year, according to economic and financial point of view investment project for next year is economically feasible, but from the financial point of view investment project is not economically feasible, and it needs to be stoped or it should start into a new development. For this thought defined mathematical model would look like

$$R_t > \frac{NCF_{t+1} + R_{t+1}}{1 + r} \quad (3)$$

According to the method of *discounted residual value* we can define financial profitability or unprofitability of investment project in the planned economic life. As long as the individual amount of residual value (buildings and equipment) from the end of the current year is by discounting estimated on the beginning of the first year and is less from the individual value of the total cash flow from the end of the observed year and it is discounted on the beginning, from the economic and financial point of view of the investment project is cost effective. For this thought defined mathematical model would look like

$$\frac{R_t}{(1 + r)^t} < \frac{NCF_{t+1} + R_{t+1}}{(1 + r)^{t+1}} \quad (4)$$

When, in the economic life of the investment project if individual amount of residual value (buildings and equipment) from the last year is by discounting method estimated on the first year and it is larger than individual value of total cash flows from the end of the observed year and it is by discounting method estimated on the first year than from the financial point of view financial project is not cost-effective it should be stoped or



investor should start new investment. For this thought defined mathematical model would look like:

$$\frac{R_t}{(1+r)^t} > \frac{NCF_{t+1} + R_{t+1}}{(1+r)^{t+1}} \quad (5)$$

In the table 2 are included all relevant parameters from the table 1 necessary for defining the economic life of the financial efficiency according to residual value and period of the financial efficiency. It was found the limit of economic and financial disharmony of investment possibility and on that way are confirmed our claims about models for the calculation of these relations which are based on the residual value.

**Table 2.** Defining the economic and financial life of the investment project exploitation

Year	financial efficiency lifetime based on the residual value			financial efficiency lifetime based on the discounted residual value			Financial effect	Cumulative
	I $R_t$	<	II $\frac{NCF_{t+1} + R_{t+1}}{1+r}$	III $\frac{R_t}{(1+r)^t}$	<	IV $\frac{NCF_{t+1} + R_{t+1}}{(1+r)^{t+1}}$		
	1	2	3	4	5	6	7 = (6-4)	8
1	20,000	<	20,909	20,000	<	20,907	907	907
2	17,000	<	20,909	15,453	<	18,998	3,545	4,452
3	16,000	<	20,909	13,216	<	17,273	4,057	8,509
4	14,000	<	18,182	10,514	<	13,660	3,146	11,655
5	10,000	<	10,909	6,830	<	7,452	622	12,277
6	5,000	>	3,636	3,105	>	2,256	-849	11,428

Note: I The residual value of the initial capital expenditure at the end of each year; II Total annual net cash flows at the end of each year, discounted at the beginning of the year; III The residual value at the end of each year, discounted at the initial 1 year of investing, or 0 year; IV The discounted annual net cash flows at the end of each year, discounted at the initial 1 year of investing, or 0 year

Based on the results from the table 2 investment project is cost effective for the first five years according to the residual value and discounted residual value method. Sixth year gives positive effects, however from the financial aspect it has a minus 849 monetary units.

### 3. EMPIRICAL RESEARCH

Empirical research is based on the obtained data from two anonymous questionnaires. The first questionnaire was intended to research academic attitudes, it was chosen a relevant sample of university teachers in the scientific field of finance at national and international scientific-educational institutions. From the total number of (46) questionnaires, correctly were answered the 36 questionnaires. With second questionnaire there were examined the attitudes of employees in corporations, whose shares are listed on the Zagreb Stock Exchange. From the total number of 90 questionnaires, correctly were answered the 72 questionnaires.

Survey respondents were asked about the degree of agreement with the statement that the length of the economic life of the investment opportunity affects the profitability of the corporation. Levels of agreement were determined by Likert-type scale of responses: 5—strongly agree, 4—agree, 3—no opinion, 2—disagree and 1—completely disagree. Attitudes of survey groups were analyzed by Fisher test. There were set two hypotheses: H0—Both groups of survey respondents have the same opinion about the statement that

the length of the economic lifetime of the investment opportunity affects the profitability of the corporation; H1—Respondent groups doesn't have the same opinion about the statement that the length of the economic lifetime of the investment opportunities affects the profitability of the corporation. Answers are presented in contingency table 3.

**Table 3.** Answers by survey respondents related to the statement that length of the economic lifetime of the investment opportunity affect the profitability of the corporation

Description			Answer		Total
			I	II	
Survey respondents	Employees on the development of investment programs	Count	20	49	69
		% within answer	29.0%	71.0%	100.0%
		% within survey respondents	87.0%	61.3%	67.0%
	University teachers	Count	3	31	34
		% within answer	8.8%	91.2%	100.0%
		% within survey respondents	13.0%	38.8%	33.0%
Total	Count		23	80	103
	% within answer		22.3%	77.7%	100.0%
	% within survey respondents		100.0%	100.0%	100.0%

Note: I Agree; II Strongly agree

It was collected total of 103 survey responses (34 from the first and 69 from the second group). All survey respondents responded affirmatively to this question. From the total sample, 22.3% of survey respondents "agree" with the statement that the length of the economic lifetime of the investment opportunities affects the profitability of the corporation, while 77.7% of respondents "strongly agree". No matter the answers are affirmative, between these groups of survey respondents there were tested the difference in the degree of agreement with the statement that the length of economic life affects the profitability of the corporation at the significance level of 5%. The answers were tested by Fisher test, and the results are shown in the table 4.

**Tablica 4.** Fisher test that the length of the economic life of the investment opportunity affect the profitability of the corporation

Description	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	5.338 <sup>a</sup>	1	0.021		
Continuity Correction <sup>b</sup>	4.239	1	0.040		
Likelihood Ratio	6.025	1	0.014		
Fisher's Exact Test				0.024	0.016
Linear-by-Linear Association	5.287	1	0.021		
N of Valid Cases	103				

The results are interpreted by Fisher's exact test, p value is equal to 0.024 which is less than 5% H0 is rejected and it can be concluded that the attitudes of survey respondents are different.

In order to determine whether respondents prefer more economic life than financial cost effectiveness survey respondents were choosing, according to their own preferences, one of the answers. The same as in the previous example answers were tested by Fisher test, and there were set two hypotheses: H0—Both groups of survey respondents have the same opinion about the preference about economic life and life of the financial viability; H1—Respondent groups doesn't have the same preference about economic life

and life of the financial viability. Answers to survey respondents are given in contingency table (Table 5).

**Table 5.** Contingency table based on the preference between economic life and the life of the financial viability among surveyed groups

Description			Answer		Total
			I	II	
Survey respondents	Employees on the development of investment programs	Count	44	26	70
		% within answer	62.9%	37.1%	100.0%
		% within survey respondents	95.7%	47.3%	69.3%
	University teachers	Count	2	29	31
		% within answer	6.5%	93.5%	100.0%
		% within survey respondents	4.3%	52.7%	30.7%
Total	Count		46	55	101
	% within answer		45.5%	54.5%	100.0%
	% within survey respondents		100.0%	100.0%	100.0%

Note: I Economic life of investment opportunity; II Lifetime of financial viability of investment opportunity

The total number of responses was 101 (31 responses from the first and 70 responses from the second survey group). The results of the Fisher test are shown in table 6.

**Table 6.** Fisher's Exact Test about preference between economic life and life of the financial viability among survey respondents

Opis	Value	df	Asymp. Sig. (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	27.562	1	0.000		
Continuity Correction <sup>b</sup>	25.334	1	0.000		
Likelihood Ratio	32.022	1	0.000		
Fisher's Exact Test				0.000	0.000
Linear-by-Linear Association	27.289	1	0.000		
N of Valid Cases	101				

Based on the results from the Fisher's Exact Test, it is possible to conclude that attitudes between two groups of survey respondents are not the same. The results showed the difference between the preferences of surveyed groups. Economic life of the investment opportunity is more closely preferred by employees who works on investment programs while university teachers preferred financial lifetime viability of investment opportunity.

## CONCLUSION

Each project has its own specific matter which arises from the different investment area (industry, agriculture, transport, trade, tourism, catering, trade, water management, etc.), it has the different content and purpose of investment (construction, reconstruction, renovation, expansion, modernization et al.). Each project has its own lifetime in which the period of investment represents a part of life cycle in which occur investment costs and negative cash flows and the period of the planned economic and financial effects of the investment project which generate positive cash flows. Longer investment period or longer negative cash flows imply to later positive cash flows from investment project in the period of its effectuation. Results of the empirical research showed that respondents

of surveyed groups agree that the length of the economic lifetime of the investment opportunity affects the profitability of the corporation, however preference of economic life and the financial viability of the investment opportunity between two groups of survey respondents is different. Theorists mostly prefer lifetime of financial cost effectiveness of investment opportunity, while practitioners prefer economic life of the investment opportunity, which indicates the fact that in practice during quantitative projections of cash flow, cost effectiveness does not apply sufficiently.

From a financial point of view interest of a business entity is to determine the lifetime of the financial cost effectiveness of the investment opportunity and determine the period in which he achieves a positive effect. Investor must determine when it is possible to economically exploit the investment opportunity, and determine the length of the period in which the investment opportunity is sufficiently profitable.

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