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“6 STEPS” FOR DETERMINING OF EFFICIENCY OF SMALL ENTREPRENEURS

“6 KORAKA” ZA IZRAČUN UČINKOVITOSTI MALOG PODUZETNIŠTVA

ABSTRACT

Single-entry accounting is applied by small entrepreneurs with annual revenues under 2 millions HRK. No financial/business reports based on a single-entry accounting system can provide reliable information on business efficiency. The major purpose of a regulated appliance of single-entry accounting is providing information for taxation of small entrepreneurs. This paper illustrates a methodology for calculation of business efficiency of small entrepreneurs applying single-entry accounting. The methodological approach outlined in this paper is based on six steps. In order to precisely determine the relevant business result, a financial analyst needs to calculate accurate data in each of the outlined six steps. The methodology described in this paper is in line with techniques of double-entry accounting. This paper uses a business case of a small family farm to illustrate the difference between (regular) financial reports generated by small entrepreneurs applying single-entry accounting and reports based on the methodology of six steps.

Key words: *single-entry accounting, business efficiency, financial analysis, methodological approach “6 steps”*

ABSTRACT

Mali poduzetnici s prihodima manjim od 2 milijuna kuna vode jednostavno knjigovodstvo. Niti jedan poslovni izvještaj ne pruža informaciju o poslovnoj učinkovitosti. Svrha jednostavnog knjigovodstva je oporezivanje dohotka malog poduzetnika. Ovaj rad daje metodologiju izračuna poslovne učinkovitosti malog poduzetnika s jednostavnim knjiugovodstvom. Postupak izračuna ima 6 koraka. Financijski analitičar mora imati točne podatke iz svih 6 aktivnosti kako bi moga sa što većom preciznosti utvrditi relevantan poslovni rezultat. Metodologija koja je opisana u suglasju je s tehnikama dvojnog

knjigovodstva. U radu se na primjeru OPG-a dokazuje razlika između završnih izvještaja koje poduzetnici dobivaju kao završne obračune i izvještaja koji se dobije primjenom metodologije u 6 koraka.

Ključne riječi: jednostavno knjigovodstvo, poslovna učinkovitost, financijska analiza, metodološki postupak 6 koraka

1. Introduction

This paper applies techniques of a static financial analysis on an example of business operations of a small family farm business (OPG) which uses long-term tangible assets (agricultural machinery and land) and human labour in the process of agricultural production. It is not possible to unambiguously determine the business efficiency/performance without applying the analysis based on accounting techniques of double-entry accounting. The fundamental problem when conducting a financial analysis of a small family farm business is that the only available data are the single-entry-accounting data and as such these data are inadequate for an in-depth financial analysis. The major purpose of regulated single-entry accounting is to determine the income-tax base and the income-tax obligation. The informational basis generated by single-entry accounting is inadequate to conduct any kind of a reliable financial analysis. The major performance measure for any kind of a business is its profitability. The paradox of single-entry accounting is that such an accounting system lacks adequate measures of business efficiency. Small family farm businesses are thus permanently deprived of relevant business information originating from the single-entry accounting system. Small agricultural craft businesses have to deal with the same issue as they also apply single-entry accounting.

2. Methodology for creating a pro forma income statement

Single-entry accounting has established some informal rules over time with a specific aim of paying less tax (e.g. delaying tax payments to future periods by applying the method of accelerated depreciation). On the one side, there is an entrepreneur with a low level of knowledge about business economics who is obliged by the law to keep accounts. On the other side, there are entrepreneurs providing accounting services, the accountants. On the third side, there is the state, namely the financial and the tax control system of the state (i.e. tax administration and inspectorate). In a fundamental point of view, the entrepreneur is the major generator of economic growth and the only one out of the three mentioned stakeholders who is constantly adding new value. From a business perspective, the entrepreneur is, therefore, the main reason, why the other two stakeholders exist, particularly the tax administration whose work would lose much of its magnitude without the mentioned agricultural entrepreneur. We can state with certainty that a successful agricultural entrepreneur is of crucial interest for both mentioned stakeholders: the state and the accountant. The paradox is that the agricultural entrepreneur is obliged to pay for accounting services, but neither the entrepreneur nor the other two stakeholders exactly know the business efficiency/success of the entrepreneur since such data are not provided by single-entry accounting. A survey conducted two years ago (Grebenaar, Banović, Bošnjak, 2012.) stated that 86% of agricultural entrepreneurs in Vukovar-Syrmia County, Croatia consider it important to know the exact profitability of their businesses as well as the internal profitability of each of their specific products. On the other side, in the same survey more than 87% of agricultural entrepreneurs did not have any written calculations for the products they produce. Therefore, we can conclude that small agricultural entrepreneurs make crucial strategic decisions without having a proper informational basis. To help small family farm businesses which apply single-entry accounting, financial analysts have to use the

methodology of determining the financial performance according to the rules of double-entry accounting.

2.1. The book of incoming and outgoing invoices

The book of incoming and outgoing invoices contains all incoming/outgoing invoices received/issued by an entrepreneur during the past accounting period. The past accounting period can be the accounting period before the current business year. This book contains a list of receivables and liabilities and it is irrelevant in the process of determining the tax base. From the perspective of double-entry accounting, this book also contains expenditures and revenues. The major purpose is to identify unpaid liabilities and uncollected receivables. All documents from the current financial year have to be separated from documents of previous periods and then a list of revenues and expenditures can be created. Such a list misses at least two specific costs, namely the depreciation/amortization cost and the cost of human capital.

2.2. The list of long-term assets

The list of long-term assets applied in the singly-entry accounting system documents long-term assets in the same way as it is done in the double-entry accounting system. The major purpose of such a list is to determine depreciation of long-term assets. Depreciation costs also directly affect the tax base. The accounting method applied by small family farms and craft businesses is often based on a principle of reducing the tax base, thus helping the business owner to pay less income tax. Some important issues arise when determining the real value of depreciation costs. Croatian tax law allows businesses to apply accelerated depreciation of long-term assets which means that a small family farm business can depreciate its non-current assets over a much shorter period of time than the actual useful life of the asset. Applying accelerated depreciation is a major problem regarding determination of realistic depreciation costs because a direct consequence of applying such a method is reducing of the tax base and delaying of income-tax payments to future periods. Namely, the entrepreneur pays less income tax during the first few (2-3) years, and then pays a higher income tax from the third/fourth year onwards. Considering a time period of 10 years as an assumed useful life of an assumed asset, the annual allocation of depreciation costs will largely depend on the applied depreciation rate. If a financial analyst wants to use the list of long-term assets to conduct an in-depth financial analysis of a small family farm business, he/she will most likely discover that depreciation costs are overinflated. Therefore, more realistic depreciation rates will have to be re-applied. This calculation will also require the exact information on the useful life of assets as well as the age of assets.

2.3. Assets not registered on business's list of long-term assets, but used in regular business operations

A survey conducted in 2012 (Grebenar, Banović, Bošnjak, 2012) proves that more than 40% of small family farm businesses use various assets (agricultural machinery, transport vehicles, buildings and other assets) not registered on business's asset list in their regular business operations. In order to conduct an in-depth financial analysis of a small family farm business, data on all assets not registered on a regular business's asset list but used in daily business operations have to be included in the analysis (i.e. realistic depreciation costs of non-registered assets used in regular business operations have to be calculated and included in the analysis)

2.4. Determining the cost of human capital

Entrepreneurs applying double-entry accounting (corporate tax payers) are obliged to keep track of the cost of human capital for all employees on specific analytical accounts. The owners of small family farm businesses and crafts applying single-entry accounting (income tax payers) are not obliged to pay personal wages neither to themselves nor to other employed members of their families. Moreover, they can spend the business's money for personal purposes without any specific hindrance and without being obliged to document such spending. However, the law prescribes that such entrepreneurs are only obliged to pay health/pension insurance for themselves and for the employed members of their family as well as to pay the income tax on the business as a whole. Since there is no clear informational basis to determine the real cost of human capital in a small family farm business, a financial analyst is faced with a serious problem. In order to determine the real cost of human capital, the information on the amount of business's money spent for personal purposes can be used. If such an amount of money can be determined, it then has to be increased by the incurred health/pension insurance costs. However, most often, the exact amount of business's money spent for personal purposes is hard to determine and in such a case, the cost of human capital can approximately be estimated by calculating of gross wages based on the amount of paid health/pension insurance. Either of the two ways can be used by a financial analyst to determine the cost of human capital.

2.5. Determining the cost of intermediate goods

The major issue when conducting a financial analysis of a small family farm business and/or an agricultural craft business is the determination of realistic production costs of products (agricultural cultures) which are expected to generate revenues in the current financial year. In other words, some agricultural cultures such as wheat are planted in one financial year, but the majority of costs as well as all revenues occur in the following financial year. Financial reports usually cover only one financial year. In the whole process of conducting a financial analysis, this is the main problem a financial analyst has to deal with. To resolve such an issue, all incoming invoices related to costs which occurred in one financial year and relate to cultures which generate revenues in the following financial year have to be separated from all other invoices and included in our analysis. Following separation of such invoices (costs), a consolidated financial report including all relevant production costs of cultures which generate revenues in the current year has to be created.

2.6. Determining the real value of inventory (final products)

Accountants of small family farms and craft businesses usually do not track the inventory of final products in a detailed and up-to-date manner. Moreover, if final products are kept in entrepreneur's own storage-houses, such documentation usually does not exist. This is mainly due to the fact that accountants of small family farms and craft businesses are more or less responsible only for financial accounting, but not for material and inventory accounting. Material and inventory accounting often requires field work and determination of value and quantity of inventory by using various, sometimes complicated and expensive, methods. The fact that detailed material and inventory accounting creates additional costs for small family farm businesses is the main reason why such documentation usually does not exist. As a result, a financial analyst faces a tough task to determine the value of inventory of final products on two specific dates: January, 1st and December, 31st. The difference between the values of inventory on the two dates is important as it directly affects the financial result (positive difference increases profits, while negative difference decreases profits).

3. The profit and loss statement

After applying the previously outlined methodology of determining of business performance of small family farms and craft businesses, a profit and loss statement can be created. Family farms and craft businesses are income tax payers; they are not obliged by law to compose a profit and loss statement since they are not obliged to use double-entry accounting, but only single-entry accounting. In this particular case which we have analysed, total annual revenues of the entrepreneur exceed 2 millions HRK and this entrepreneur will be obliged to use double-entry accounting from the next financial year onward. Table 1 illustrates the results of the applied “six steps” methodology for determining of business performance of a small family farm business.

Total costs of human capital are calculated on a basis of the amount of business’s money spent for personal purposes plus income tax and health/pension insurance costs. Direct and indirect costs (material and services) as well as costs of intermediate goods are determined on a basis of incoming invoices registered in the book of incoming invoices during a period of two financial years as previously described. Depreciation of agricultural machinery was re-calculated by using a corrected depreciation rate, thus removing the impact of accelerated depreciation on the financial result. Due to large investments into machinery, the amount of calculated depreciation is large as well. Depreciation costs from Table 1 are more realistic since annual depreciation costs are being allocated in accordance with the expected (planned) useful life of assets. Otherwise, depreciation costs would largely underestimate business performance.

The small family farm business analysed in this paper generates revenues from state grants for agricultural production, revenues from other services and revenues from sales of agricultural products. According to data illustrated in Table 1, generated profits amount to 759.582 HRK.

Table 1: Profit and loss statement of a small family farm business

NR	REVENUES AND EXPENSES	Land surface: 259 ha
		Total
	EXPENSES	
1	DIRECT COSTS OF HUMAN CAPITAL	333.909
2	Direct costs of human capital	333.909
3	DIRECT COSTS OF MATERIAL AND SERVICES	1.147.374
4	Direct costs of intermediate goods	997.507
5	Costs of outsourced services	50.050
6	Other costs of material and services	99.817
7	INDIRECT COSTS	74.873
8	Other non-production related services	49.540
9	Costs for personal (own) purposes	15.333
10	Fuel for (own) personal purposes	10.000
11	DEPRECIATION OF MACHINERY; FUEL AND MAINTENANCE COSTS	845.769
12	Fuel for machinery and vehicles	155.647
13	Spare parts	49.430
14	Depreciation of machinery	644.692
15	DEPRECIATION OF BUILDINGS	30.090

NR	REVENUES AND EXPENSES	Land surface: 259 ha
		Total
16	Storage houses	30.090
17	TOTAL EXPENSES	2.432.015
18	Variable costs	1.352.450
19	Fixed costs	1.079.565
	REVENUES	
20	Revenues from grants	460.200
21	Revenues from sales	2.575.421
22	Revenues from other services	155.976
23	Other revenues	0
24	TOTAL REVENUES	3.191.597
25	RESULT	
26	PROFIT	759.582

Source: Financial documentation of a small family farm business in Vukovar-Syrmia County, Croatia

4. Comparing of the two statements

According to the rules of single-entry accounting, the final financial report of the respective family farm business includes only paid liabilities and collected receivables, while the difference between the two represents generated income which is subject to income taxation. Such a report and such a methodological approach neglect previously described demands (subchapters 2.1.-2.6.) which need to be considered when determining a realistic business result. According to the final report based on single-entry accounting, the analysed family farm business's generated income (difference between financial inflows and outflows) is ½ of the generated profits from the profit and loss statement illustrated in Table 1.

5. Conclusion

Business (financial) reports based on single-entry accounting which are primarily used to determine the income tax base of small family farm businesses and crafts are absolutely irrelevant when it comes to assessing their business performance. This is the main reason why small crafts, small family farm businesses and agricultural craft businesses are constantly being deprived of relevant information about business economics of their businesses. Solely with the appliance of single-entry accounting, the entrepreneur cannot be provided with the relevant information on business economics and this is the reason why such an accounting method loses on its relevance.

In times when small family farms and agricultural craft businesses can withdraw significant amounts of EU funding, information on internal economics of agricultural production are essential in strategic decision making.

Before making any decision about long-term investments, the entrepreneur has to conduct a detailed financial analysis of his/her business. The "six steps" methodology described in this paper aims to route a financial analyst conducting a financial analysis of small family farm businesses and agricultural craft businesses. Without applying the outlined methodology in detail, the final business result remains irrelevant as an important informational basis for strategic decision making.

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