THEORETICAL AND PRACTICAL ASPECTS OF PROFITABILITY FACTORIAL ANALYSIS

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Abstract

Profitability is one of the fundamental directions of the financial stability of enterprises. Resources in nature are finite. Thus, the effective use of resources by each enterprise is of great interest to the public. The Profit is a means of expanding of production, of material incentives, of growth of investments and state revenue. Profit is also used by enterprises to finance employees' awarding charitable and other programs. So, in order to make the enterprise profitable, it is important for owners, employed personnel, the state, and the whole society. Consequently, the research of the factors that increase the profitability of enterprises is always relevant.

Purpose of the article is to create a multifactorial model of profitability. Therefore, the object of research is the system of indicators of profit and profitability. The article discusses different indicators of profit and profitability of the enterprise. On the basis of their logical and qualitative analysis, the most general indicator was selected: the ratio of annual profit (profit before taxation) to total assets. The purpose of the research was exactly to create a new factor model of this indicator. Based on the logical analysis, synthesis and professional judgment methods, eight indicators were selected which influence the profitability change and whose insertion (layout) into one model is possible and reasonable. And the method of so-called absolute difference is used to measure the influence of factors affecting profitability.

For the testing of this model, the article uses the data of the Teliani Valley financial information of the Georgian wine company. This company was very interesting because it was the most financially stable and high-profile one but it became unprofitable for the past three years. As a result of the logical and empirical analysis of the factor-indicators of the new multi-factor model, it is obvious that this model can be used in all branches of the economy, except for commercial banks. Annual use of this factor model of profitability will be intellectual assistance for management of companies in order to find negative factors for profitability change and to make relevant decisions.

Keywords: profit, profitability, profitability factor model, the absolute difference method, intelligent support.
JEL Codes: M21.

Introduction

The profit is the means of expanding production, material stimulation, investing and increasing state revenue. Profit is also used by enterprises for promotion and awards of employees, for funding charitable and various other programs. So, in order to make the enterprise profitable is important for owners, employed personnel, the state, and the whole society.

Owing to the above retention of profits growth rates and usage of existed recourses with high profitability is the main and final financial objective of all kind of business. Profitability growth is an important task of an enterprise financial management and is always actual for the future existence of the business.

Enterprise leaders are responsible for efficient regulation of the recourses they are trusted that means that business should cover expenses and should receive financial surplus or profit additionally. In addition efficiency of production doesn't negate delivery of expenses on the contrary expenses are necessary in order to receive profit in future.

At present time throughout the world is considered that as a rule that business which sells material production or service should be profitable or the revenues, so the revenues should supersede expenses. We don't know what will happen in future, perhaps the era could befall when high-tech humanity and the business, in turn, will refuse to receive profits and the price would be equal to expenses, but today no enterprise can exist without profit. The profitable enterprise promotes the growth of the state budget, owners, personnel and increases the property of society. Consequently, provision profitability of the society and seeking reasonable ways is the most important task of a financial management for what are used corresponding methods of the analysis.

Hence finding activities for raising the efficiency of production and their introduction in theoretical or practical direction is an actual objective at any time. Therefore, in the present article, the object of research is the system of indicators of profit and profitability. From here, in the article, the profit and profitability indicators are critical reviews. Profit and profitability factor analysis tested on the example of one of the Georgian wine companies "Teliani Valley", which occupies the highest share (48%) in the Georgian wine market.

Winemaking is a field of traditional, strategic importance in Georgia. It is made from grapes juice, the quality of which depends not only on the technology of preparation but also on grapes varieties and is connected with viticulture the history of which dates back to antiquity. Grape was elevated to the cult and wine plays an important role among the population of Georgia and in revenues of the state budget.

For the last years in Georgia are observed unstable tendencies of development of wine companies. But, in this article, the aim of our research is not to take up the issues of profitability and financial stability of the wine industry in Georgia. In this article, we will only demonstrate the practical worth of the new eight factor-models of profitability and

for this reason sufficient the example of the one company. Therefore, the present article has used the information of financial statement only of company "Teliani Valley" for the period of 2010-2017 years.

Many authors analyze the profit and profitability of the enterprise. They examine various factors that affect profitability. Altman (1968), Beaver (1966), Ohlson (1980), Almamy et al. (2016), Margaretha and Supartika (2016), Brealey et al. (2001), Gibson (2008), Parkitna and Sadowska (2011), Chiladze (2018), Sathyamoorthi et al. (2018) and others. About the impact of working capital management on profitability wrote Sathyamoorthi et al. (2018), Ayako and Ayako (2016), Refugio et al. (2018) and others. Many scientists work in the Georgian wine industry, namely: Kharaishvili (2018), Kavtaradze (2018) and others.

The main limitation of profit analysis is that it is a voluminous index and can not characterize the quality of the enterprise's performance. Therefore, it is necessary to study the profitability indexes. Many scientists work on establishing the correlation between profitability and the factors that affect it and on creating a profitability factor model. For example, Altman (1968) created a bankruptcy index and its minimum margin on the basis of the conducted research. There are five factors in this model and their sum of 2.675 should not exceed. Also, the factorial indexes of profitability have been created by Muhammad et al. (2015), Margaretha and Supartika (2016), Almamy et al. (2016), and others. For example, Sathyamoorthi et al. (2018) created the model about the relationship between profitability and working management. They used the method analysis of the Pearson correlation and calculated – β – coefficients for selected indicators: average collection period (ACP), inventory conversion period (ICP), average payment period (APP), cash conversion cycle (CCC), debt ratio (DR), and current ratio (CR) and quick ratio (QR).

Determination of factor correlation indexes and their permissible boundaries is a very serious research, but, in our opinion, the restriction of this method is that it is different for different sector companies and thus cannot be used in all branches. Such constraint does do not characterize to the factorial model, which is created on the base of the eliminating method. By using this method can be created a factor-model of profitability for the enterprises of the different economic sectors. This method was first used by the DuPont management company in the 1920s (therefore, it is called the DuPont method[1]. In these factor-models return on assets (ROA) return on equity (ROE) was included. However, these ratios are financial profitability indicators that are calculated on the base of the net profit. We are based on the concept that more important is the profitability of the enterprise, which is calculated on the base of annual pretax profit.

We will note that on the profitability also affects methods of evaluation of assets (Maisuradze, 2018). The application of these tangible assets (TA) accounting policy alternatives has a significant positive effect on debt ratios, however a negative effect on asset profitability and asset turnover ratios. Therefore, this research can be a starting point for further research in order to determine a comprehensive view of the influence of TA accounting methods to financial indicators (Zinkevičienė et al., 2016).On the volume of the profit and profitability also affects the long-term asset assessment, which is required by IAS 36[2] "Depreciation of assets", therefore annual testing of long-term assets depreciation and its accounting we consider as not necessary (Chiladze, 2016). We share the idea that long-term asset assessment policy and methodology influence on the profitability ratio of the enterprise, but this is a separate direction of the research and we will not be review now.

Profit of an enterprise is its final positive financial result and the absolute indicator of economic efficiency. It reflects functioning quality of visible and invisible recourses at all sides of enterprise activities. Profit is such complex and a non-general indicator of an enterprise economic efficiency in which are elucidated directly and indirectly not only changes happened while usage material and financial recourses but also the quality of employees' relationships and ethnic behaviors. As it is known the profit is a difference between revenues and expenses and between them exists a certain conflict. In particular, the growth of expenses decreases the profit. However, without the necessary expenses of recourses revenues and profit can't be received. So, "making a profit implies that revenues should exceed expenses and not to inexisting expenses" (Chiladze, 2018, p. 276). Therefore recourses should be used efficiently.

Profit indicators, as it is known, may be grouped according to the areas of origin and according to the levels of formation[3]. According to the areas of origin could be the profit from ordinary activities and from non-ordinary activities. According to to the levels of formation, these types of profit can be defined: profit from sales (gross profit), operating profit, earnings before interest, taxes, and depreciation (EBITDA), earnings before taxes (EBIT), net profit, distributed profit and retained profit. All indicators of the profit have a proper purpose. However, in our view, the EBITDA profit indicator is not, since all the costs of production are not covered yet.

Materials and Methods

Enterprise profit is a quantity (absolute) indicator of economic efficiency. The significant limitation of profit indicator is that it can't characterize how well the recourses of the enterprise were used; cannot answer the questions – are recourses used in the enterprise better or worse while current year? For example, if an enterprise in the previous year earned profit 2 mil GEL and in current year 6 mil GEL, it doesn't mean uniquely that the enterprise worked better in the current year. However if it is found out that the enterprise earned 12% per one GEL of the assets in a previous year and

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[1] DuPont Analysis Method. Available at <https://en.wikipedia.org/wiki/DuPont_analysis>.
[2] International Accounting Standard (IAS) 36. Impairment-Assets. Available at <https://www.iasplus.com/en/standards/ias/ias36>.
[3] International Accounting Standard (IAS) 1. Presentation of Financial Statements. Available at <https://www.ifrs.org/news-and-events/updates/iasb-updates/july-2018/>.

in the current year it earned 7% per one GEL of the assets, this indicates clearly that the level of production efficiency in the current year had reduced. Therefore the profitability analysis covers a certain limitation of profit indicator.

There are three types of indicators (Chiladze, 2018):

1. Production profitability.
2. Economic profitability of an enterprise.
3. Financial profitability of an enterprise.

Indicators of production profitability may be private or common. Private indicators of production profitability describe how much is profitable (or with losses) certain kind of production (or service). It will be calculated separately in accordance with varieties of production or service; as the profit ratio received from the sale of production of a separate variety per its price or the cost and multiplied by hundred. It explains how many interests rates are received per unit of production of a given variety. Analysis of production profitability indicator gives the opportunity to reveal detailed reasons for comprehensive profit and profitability growth and helps management to regulate and control changes in profit and profitability indicators more efficiently. However, such analysis of indicators can't be done by outside customers of the financial accounting since it represents internal information of an enterprise. We consider admissible to be published the accounting on profits of the main variety of products (service) by gross and average companies. We suppose that this will give the opportunity to scientists on one side to provide companies with correct and more detailed references in order for them to evade losses and expected bankruptcy and on the other side to promote comprehensive economic stability of the state.

Overall profitability indicator of production is calculated by the ratio of profit received from the sale of production together with the price cost of production expressed in interests. It is also called – profit norm.

Economic profitability indicators of an enterprise are calculated by the ratio of profit received from usual activities of the enterprise, also the whole annual profit per total sum of assets-or per total sum of fixed assets and inventories. This characterizes the economic efficiency of the enterprise.

Possible was better to calculate profitability from the ordinary and the rest of the work separately, but this is another direction of research and we will not consider here.

Using the concept of the DuPont Method, we have developed the following multi-factors model of economic profitability of total Assets (PTA):

$$PTA = \frac{P}{TA} = \frac{P}{OP} * \frac{OP}{PS} * \frac{PS}{S} * \frac{S}{CS} * \frac{CS}{OEx} * \frac{OEx}{(MM+CA)} * \frac{(MM+CA)}{Ow.C} * \frac{Ow.C}{TA}$$

where: P/OP –the ratio of annual profit (i.e. profit before tax) to operating profit- as much as this ratio is closer to one, the lower the profit tax burden and in other equal conditions, i.e., in the invariance of the other factors, increases the overall economic profitability of the enterprise;

OP/PS – operating profit ratio with profit received from realization (gross profit) - also, as much as this coefficient is closer to one, the higher the efficiency of management and service costs, and therefore the profit increases;

PS/S – realization profit ratio with income from realization - it is a profit margin or profit norm, and its growth causes to an increase in profitability;

S/CS – the ratio of the sales to the cost of realized products - it characterizes the level of income earned on the unit of expenses i. e. the return on production costs. Its growth, in other equal conditions, causes to increase of total profitability;

CS/OEx – the cost of realized products ratio to the operating costs -it characterizes the share of production expenses operating expenses. Its growth indicates an increase in production volume and increases the profit and expected profitability level in other equal conditions;

OEx/(MM+CA) – operating expenses ratio to the average sum of Main means and Current assets - it is an indicator of the turnover of the advanced the resources, i.e. the advanced value transferred into expenses. As more will be spent resources and their turnover will not be delayed, this ratio will be higher and will increase the expected level of profitability;

(MM+CA)/Ov.C – the ratio of the average amount of sum main means and current assets to the average value of owner capital - it characterizes the value level advanced into the resources for 1 GEL of the value of equity. As this coefficient will increase, the more active the value of equity is, and therefore it increases the expected profitability;

Ov.C/TA – The ratio of owner equity to an average of total assets – is the equity share capital in assets. Its growth indicates that in the sources of financing of the enterprise assets decreases the share of loans and correspondingly the number of interest expenses that contribute to the growth of profit and assets profitability level;

Therefore, the synthetic indicator of profitability is separated into eight analytical factor-indicators considering their formation stages. The increase of listed factor-indicators increases the expected level of profitability and their reduction reduces the profitability. On the example of the analytical enterprise, we calculated the numerical values of the submitted factor model for the study period to determine the reasons for the falling and loss of profitability.

Depending on the economic essence of the presented factor-indicators, it is clear that this model can be used by the enterprises of any kind of economy, except for commercial banks. In purpose to illustrate the practical dignity of the new factor-model of profitability, we believe that the example only of one company is sufficient.

Empirical Results

As already mentioned, for testing of the new multi-factor model of the profitability presented in the article is selected the Georgian wine company, JSC "Teliani Valley".

History of Georgian wine is one of the most ancient in Europe. Georgian people while thousand years have created viticulture elaborated technologies for acquisition as table wines as dessert wines. As a result of archeological diggings on the territory of Georgia are found the ancient artifacts: clay pitchers, gold, silver and bronze bowls and etc. Historical sources confirm that viticulture existed in Georgia approximately seven thousand years ago. In Georgia wine was produced in each family and at present times as well. Georgia used to be involved in numerous wars and had to repel attacks from enemies. So until the second half of the XIXcentury, Georgia couldn't manage to develop the industry of wine-making. Georgia was the colony of Russia and that times development of winemaking required support. In 2013 its production achieved 4% in total world production (30 million deciliters)[4]. From1921 started the expansion of viticulture and wine-making. The first winery was built in 1884 by well-known Georgian entrepreneur David Sarajishvili. The winery production became famous and today it is the popular brand.

But, in this article, the aim of our research is not to take up the issues of profitability and financial stability of the wine industry in Georgia. In this article, we will only demonstrate the practical worth of the new eight factor-model of profitability and for this reason sufficient the example of the one company. Therefore, the present article has used the information of financial statement only of company "Teliani Valley" for the period of 2010-2017 years. In the result of using the new factor-model was disclosure the factors of the unprofitability of this company.

Wine Company "Teliani Valley" was founded in 1997 based on "Teliani Marani" which was built in 1954. "Teliani Valley" share in bottling wine internal market occupies 48% (by calculation made in 2007), and export share – approximately 12%. The share of "Teliani Valley" in the internal market involves 48% (in accordance of 2007 calculation), and the export share approximately 12% that includes 65% of completely produced products which are exported abroad. In 2007 the company produced 1,4 million bottles, while its stock gives the opportunity to produce 4.5 million liters. At present time "Teliani Valley" is a big company and it has five affiliates; produces a full spectrum of Georgian traditional wine, also products received by a mixture of Georgian and foreign wines as well. The Company owns vineyards spread throughout 85 hectares of lands. While last years it undertook production of vodka, beer, and lemonades; also involves the distribution network. In the local market of bottled wine, it occupies a position of a leader. The Company wines: "Mukuzani", "Shardone", "Tsinandali", "Tsolikauri", "Saperavi" had got silver and bronze awards in Wine Exhibition held in England in 2010.

As of 2017 JSC, "Teliani Valley" assets involves 108 million GEL and has deposited approximately 535 millions usual shares, with the nominal price of one – 1 tetri (we consider such low price is not serious). While the last three years the Company has become unprofitability. Thus, the issues of profitability analysis of this company became very relevant.

In the given study period (2010-2017) annual total profit indicator of JSC "Teliani Valley", all four studied profit indicators till 2015 were characterized by the trends of significant growth. In 2015 and in a further period except profit received from sale started an unexpected drop in profit rates and the company bore losses (see table 1).

Therefore the first table shows, that profit from the sale (gross profit) was growing yearly. And other indicators of profit are characterized by high fluctuation. We will note that percent figures in the table inserted into the brackets are indicators of loss rates compared with the year 2010. From 2015 there is a loss.

The foremost reason of losses was that in study period rates of growth of expenses outpaced rates of the revenues growth (see table 2). Especially high are a sale growth rates of-of sale and total administrative expenses. Because, since 2015 the Company was the loss-making every year.

Table 1. Dynamic of Profit Indicators of JSC "Teliani Valley" in % Compared with 2010 Ones

The indicators	2010	2011	2012	2013	2014	2015	2016	2017
Gross profit	100	122	159	206	195	179	168	246
Operating profit	100	125	163	251	250	157	95	(268)
Annual profit before tax	100	199	510	926	679	(162)	(68)	(3850)
Net profit	100	171	591	97	685	(483)	(82)	(5522)

(Source: Financial Statement of… (2010, 2017))

As a result of dynamic analysis of revenues and costs of the analytical enterprise (see table 2) it turns out that in given analysis period the total revenues increased by 3 times and total costs raised by 3.35 times. In 2017 sale and distribution costs overpriced basic year level by 4-times and total administration costs – 3 times that indicates high operation risks. The permanent increase in operational risk leads to losses (Chiladze, 2017).

On the volume of the profit also affects the long-term asset assessment, which is required by IAS 36 – depreciation of assets. The amount of loses of depreciate, evaluated by such requirements is less reliable evaluated by

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[4] *Georgian Soviet Encyclopedia*. 1983. Tbilisi, vol. 6, p. 635.

such requirements is less reliable. Therefore annual testing of long-term assets on depreciation and its accounting we consider is not necessary (Chiladze, 2016).

Table 2. Dynamic of Revenues and Expenses of JSC "Teliani Valley" in % Compared with 2010 Data

The indicators	2011	2012	2013	2014	2015	2016	2017
a. Total revenue:	122	159	191	168	161	162	303
1. revenue from Sale	122	159	190	168	161	162	299
2. other revenue (with 2012)	-	-	201	106	58	87	773
b. Total expenses:	119	156	175	153	159	162	335
1. production exspenses	121	158	184	159	166	170	359
2. sales expenses	125	177	209	173	194	201	425
3. administration expenses	112	133	184	185	172	181	299
4. non-operating expenses	98	131	67	81	82	65	41

First of all, the dynamics of several indicators of the profitability of the analytical enterprise have been studied (see Table 3). As you can see, the presented indexes are especially worsened after 2014.

On the basis of the same Table 3, it is clear that in 2010, profits for one GEL asset was 2.16%; in 2013, it increased to 10.249%. In 2014, decreased to 6,617% and in the following years, it has been a loss. As we mentioned earlier, numbers inserted in parenthesis indicate a loss. In 2017, there was a 10.7% loss for each GEL asset. As for the return of the operating costs (revenues from sale / operating costs), it has worsened in recent years. In 2017, it fell below one, which means that earned income can not cover operating costs.

As we explained earlier, we show an example of the use of a new factor-model of profitability based on the selected company's information base. Table 5 presents profitability factors' rows for each year of the analytical period. So, for example, the profitability of assets in 2010 is 0.0168, i.e. 1.68% of earnings per 1 GEL share. And the other indexes are factor-indexes.

Table 3. Efficiency Indicators of JSC "Teliani Valley" in % for the Period 2010-2017

The Indexes	2010	2011	2012	2013	2014	2015	2016	2017
1. Economic profitability of assets	2,16	3.007	6,777	10.249	6,617	(1,523)	(0,338)	(10.70)
2. Financial profitability of assets	1.508	1.794	5.473	7.5461	4.656	(3.174)	(0.282)	(10.70)
3. Profit norm (marja)	45.44	45.38	45.45	49.14	52.94	48.45	47.05	44.46
4. Return on operating costs	110.13	110.67	110.74	114.17	116.35	106.94	105.29	91.84

Study index - the Profitability of the Assets is equal to the multiplication of factor-indexes (see the table 4). For example, in 2010:

0.2136 * 0.2072 * 0.4545 * 1.8332 * 0.6008 * 0.8447 * 2.3949 * 0.4825 = 0.0216
in 2011: 0.3417 * 0.2125 * 0.4538 * 1.831 * 0.6045 * 0.8471 * 1.5387 * 0.6326 = 0.0301
etc. every year.

Table 4. Coefficients of Assets Profitability and the Eight Factors that Influence the Profitability of JSC "Teliani Valley" in 2010-2017

Indexes	2010	2011	2012	2013	2014	2015	2016	2017
Profitability of Assets (P/ TA)	0.0216	0.0301	0.0678	0.1025	0.0662	(0.0147)	(0.0034)	(0.1070)
Factors:								
I. P / OP	0.2136	0.3417	0.6705	0.7891	0.5806	(0.220)	(0.1528)	(3.0749)
II. OP / PS	0.2072	0.2125	0.2127	0.2526	0.2654	0.1900	0.1172	(0.2255)
III. PS / S	0.4545	0.4538	0.4545	0.4914	0.5294	0.4845	0.4705	0.3737
IV. S / CS	1.8332	1.8310	1.8330	1.9663	2.1251	1.9398	1.8887	1.5966
V. CS / OEx	0.6008	0.6045	0.6041	0.5806	0.5475	0.5513	0.5604	0.5752
VI. OEx / (MM+CA)	0.8447	0.8471	0.9612	0.9280	0.7016	0.7212	0.2698	0.4561
VII. (MM+CA) / Ov.C	2.3949	1.5387	1.7662	1.8709	1.9883	2.0675	3.4515	2.3222
VIII. Ov.C / TA	0.4825	0.6326	0.5563	0.5278	0.4996	0.4717	0.4086	0.4245

Table 4 shows that all the factor-indexes in the given 2010-2017 period in comparison with 2010, except for the eighth factors, are deteriorated and characterized by instability. The impression is created that the financial management

of the company had some incomprehensible and subjective expectations. In our view, if the management of the enterprise would have used a factor model developed by us, it the results of the analysis would take into account in planning.

Based on the information in Table 4 using the absolute difference method, it is possible to measure the effect of the change in eight factors-indexes that affect profitability as compared to any previous year. But there is no profitability in 2015-2017. There is a loss. Therefore, the factorial analysis of profitability based on the above factor model was carried out only by years of profitability.

For the factor analysis, the means of absolute variation of the eliminating method is used. For example, 2010 was taken as the base year and 2011 as the current year. Asset profitability deviations in 2011 = 0.0301 – 0.0216 = + 0.0085. Thus, in 2011 the profitability of assets increased by 0.0085 points in comparison with 2010. Influence of factors affecting this deviation is easily calculated using the absolute difference method. First, the deviation of all factor-indexes is calculated (see Table 5). It turned out that three factors from eight factors have had a negative impact. The rest of the factors have been increased and consequently, the profitability is increased too.

Table 6 shows the calculations of the impact of changes of the factor-indicators on profitability. For this purpose, as already mentioned, the method of absolute difference has been used, during which the deviation of the given factor is multiplied by the baseline values of the current and subsequent factors standing before it in the factors row.

Table 5. Changes in Factors Affecting the Profitability Deviation of JSC "Teliani Valley" in 2011 Compared with the Previous Year

Indexes	2010	2011	*Deviation*	2014	2015	*Deviation*
Assets profitability – P / TA	0.0216	0.0301	*+0.0085*	0.0663	(0.0147)	*- 0.081*
Factors:	-					*Influence of the factors:*
I. P / OP	0.2136	0.3417	*+0.1281*			*-0.0914*
II. OP / PS	0.2072	0.2125	*+0.0053*			*+0.0071*
III. PS / S	0.4545	0.4538	*-0.0007*			*+0.0015*
IV. S / CS	1.8332	1.8310	*-0.0022*			*+0.0014*
V. CS / OEx	0.6008	0.6045	*+0.0037*			*-0.0001*
VI. OEx / (MM+CA)	0.8447	0.8471	*+0.0024*			*-0.0002*
VII. (MM+CA) / Ov.C	2.3849	1.5387	*-0.8562*			*-0.0012*
VIII. Ov.C / TA	0.4825	0.6326	*+0.1501*			*-.0018*

Factor analysis has shown:

Since the first factor has increased by 0.1281 (see table 5) points compared to the previous year, the profitability by its effect was increased by 0.013 points per one GEL asset (see table 6), that is, the profit increased by 318 thousand GEL (24475 * 0.013).

Under the influence of the growth of the second factor by 0.0053 points (table 6), profitability increased by 0.0009 points (table 6), and the expected gain of profit has been increased by 22 thousand GEL (24475 * 0.0009).

The decrease in the third factor – the profit margin by 0.0007 points, reduced profit by 2.45 thousand GEL (24475 * 0.0001).

Table 6. Calculation of the Influence of Factors Affecting on the Profitability of JSC "Teliani Valley" in 2011 Compared to the Previous Year per Absolute Difference Method

Indexes	Deviation since 2010	absolute deference method for calculating the influence of factors (IF)
P / TA	*+0.0085*	
Factors:		
I. P / OP	+0.1281	I (I.F.) = *(+0.1281)* * 0.2072 * 0.4545 * 1.8332 * 0.6008 * 0.8447 * 2.3949 * 0.4825 = +0.0130
II. OP / PS	+0.0053	II (I.F.) = 0.3417 * *(+0.0053)* * 0.4545 * 1.8332 * 0.6008 * 0.8447 * 2.3949 * 0.4825 = +0.0009
III. PS / S	-0.0007	III (I.F.) = 0.3417 * 0.2125 * *(-0.0007)* * 1.8332 * 0.6008 * 0.8447 * 2.3949 *0.4825 = -0.0001
IV. RS/ CS	-0.0022	IV (I.F.) = 0.3417 * 0.2125 * 0.4538 * *(-0.0022)* * 0 .6008 * 0.8447 * 2.3949 * 0.4825 = -0.00004
V. CS / OEx	+0.0037	V (I.F.) = 0.3417 * 0.2125 * 0.4538 * 1.8310 * *(+0.0037)* * 0.8447 * 2.3949 * 0.4825 = +0.0002
VI. OEx / (MM+CA)	+0.0024	VI (I.F.) = 0.3417 * 0.2125 * 0.4538 * 1.8310 * 0.6045 * *(+0.0024)* * 2.3959 * 0.4825 = +0.0001
VII. (MM+CA) / Ov.C	-0.8562	VII (I.F.) = 0.3417 * 0.2125 * 0.4538 * 1.8310 * 0.6045 * 0.8471 * *(-0.8562)* * 0.4825 = -0.0127
VIII. Ov.C / TA	+0.1501	VIII (I.F.) = 0.3417 * 0.2125 * 0.4538 * 1.8310 * 0.6045 * 0.8471 *1.5387 * *(+0.1501)* = +0.0071
		Sum total *+ 0.0085*

The reduction of the fourth factor, which represents a repercussion of production costs, decreased the expected rate of profit by 979GEL (24475 * 0.00004).

Under the influence of the fifth factor – the increase of the share of production expenses in operating costs - operating expenses, profitability increased by 0.0037 points, and the expected rate of profit increased by 4895 GEL (24475 * 0.0002).

The sixth factor - the speed of use of resources, or business activity - is increased by 0.0024 points, under the influence of which the expected level of profit increased by 0.0127 points, while the total gain of profit amounted to 2.5 thousand GEL (24475 * 0.0001).

The seventh factor – the ratio of tangible assets to equity has been reduced, which means that the growth rate of resource is lower than the equity, i.e. the production activity of equity has been reduced – which decreased the profit margin by 0.0127 points, and reduced the profit by 311 thousand GEL (24475 * 0.007).

Increase in the eighth factor – that is, the increase in the share of equity by 0.1501 points, increased profitability of assets by 0.0071 points. While the expected volume of profit increased by 174 thousand GEL (24474 * 0.0071).

Thus, in 2011 the analyzed enterprise, as compared to the previous year, under the impact of negative factors has lost a profit of 314.4 thousand GEL (2.4 + 0. 979 + 311).

The study was interesting to compare between those years when profitability was the previous year and the unprofitability was in the current year, for example, 2014-2015 years. Is also a case when in both years (2015-2016; 2016-2017) the company was unprofitability (see table 4).

In the fifth table it is shown that on the one GEL asset the profit was 6,63% in 2014, and in 2015 it was 1.47% loss. The deviation is: (0.0147) - 0.0663 = - 0.081 (Table 5).Influence of factors affecting this deviation has been measured by the absolute difference method and the results are presented in the same table. In this case, there is the following approach: in the factor`s row any factors increasing, reduces the losses, and the reduction of the factor, increases the loss.

In addition, we note that when the rate of profit is instability in the enterprise, the company management must be analyzed leverage coefficients and evaluate risks (Chiladze, 2017). However, it is obvious that enterprise management does not analyze risks. That is why it is necessary to analyze internal directions of the activity in order to maintain stability in the competitive environment. However, the level of competition on the Georgian wine market has not yet been studied. Alternatives and possibilities of competitive models the of the field are to be developed (Kharaishvili, 2018).

Consequently, the use in the companies of an eight-factor new model of profitability helps the management to find all the essential reasons for reducing profit and make the right decisions.

Conclusions and Recommendations

When analyzing profitability and financial stability we recommend for enterprise's managers to use the multifactor model. The model consists of eight factors, which gives the responses about the further increase in profitability. Based on this model, the reasons for the change of profitability can be studied by the following directions: the interdependence of the trends of different indicators of profit; condition of current and long-term assets use; the threats from operating and financial risks.

The practical worth of the new eight factor-model of profitability is demonstrated in this article by testing it on the data of JSC "Teliani Valley" for the period of 2010-2017. As a result of using the new factor-model, the factors of unprofitability of this company was disclosed. JSC "Teliani Valley" became unprofitable because the managers failed to identify and control positive and negative factors. So, the inspected company needs intelligent support. It would be great if Georgian companies together with universities will conduct joint problematical seminars. This will help to approximate theory and practice, to go into the partnership between the business and science, and to develop economic thinking and stability of the enterprises as well.

The eight-factor model of profitability presented in the article can be used in all branches of business, except for commercial banks. Its annual use in companies will provide intellectual assistance to the enterprise's managers. They will find the negative causes for reducing profitability and implementation the adequate measures.

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