
CALCULATION ELEMENTS REGARDING THE ANALYSIS OF THE INTERNAL POTENTIAL AT SC PRODLACTA SA

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Abstract

SC Prodlacta SA is a company engaged in the manufacture of dairy products and cheese(CAEN code 1051). Prodlacta has a wide range of products, starting with the classic products: milk, yogurt, acidophilic products, cheese, cream, butter and reaching special desserts such as glazed cheese. This paper proposes the analysis of the labor productivity and of the financial profitability, as well as the realizing a SWOT analysis for SC Prodlacta SA.

Keywords: *SC Prodlacta SA, internal potential, bibliometric analysis*

JEL Classification: *Q120*

REL Classification: *15B Economia agriculturii*

Introduction

In the first part of the paper, a bibliometric analysis will be performed on the topic of the internal potential of the enterprise. Next, the labor productivity and financial profitability of SC Prodlacta SA will be analyzed.

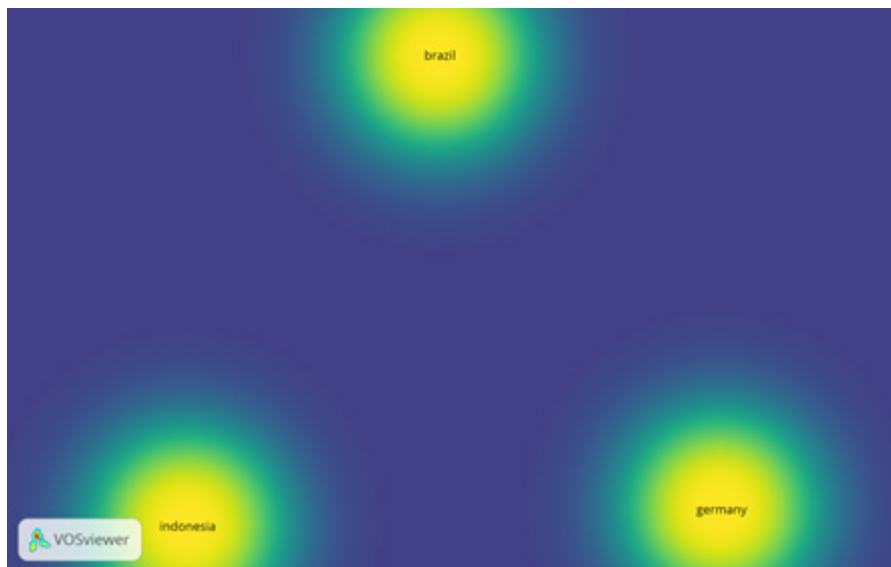
1. Review of scientific literature

Quantitative analysis of scientific documents found in the Scopus database - Bibliometric analysis performed in VOSviewer

Within this chapter, a bibliometric analysis was performed for the field of the internal potential of the enterprise. The figure below shows the co-autorship of the countries.

Co-autorship of countries

Fig.1



Source: own conceptualization based on Scopus database

Source own conceptualization based on Scopus database

The analysis was performed for 3 states. Thus, Brazil, Germany and Indonesia collaborated to develop 3 documents on the topic of the company's internal potential, respectively the profitability of an economic unit. Figure 2 analyzes the keywords used by the authors in the research papers.

The analysis of authors keywords

Fig.2



The most commonly used word is profitability with 20 appearances, followed by cost with 2 appearances.

II. Research methodology

Scientometry is a form of knowledge that aims to measure scientific activity in research. In this context, Bibliometrics is a branch of Scientometry that relies on the quantitative analysis of scientific publications to perform statistical analyzes. Therefore, bibliometrics is a research method that involves the development of an inventory specific to journalistic activity either at the level of states or at the level of institutions to perform a comparative analysis of research productivity (Pătărlăgeanu, 2020). Therefore, 23 articles were analyzed to determine the scientific interest in the field of the company's internal potential. Next, labor productivity as well as financial profitability were analyzed.

III. Results and discussions

3.1 Labor productivity analysis

Table 3.1 shows the evolution of labor productivity for Prodlacta in the period 2017-2019.

The evolution of labour productivity between 2017-2019

Table 1

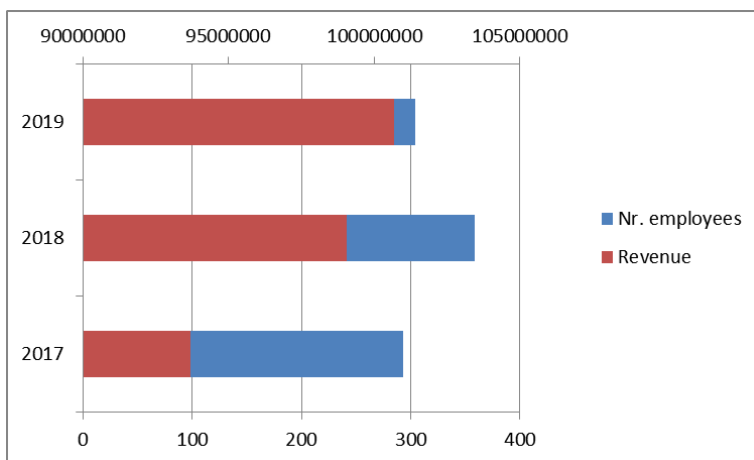
	2017	2018	2019
Nr. employees	293	359	304
Revenue	93.683.179	99.046.851	100.693.737
Labour productivity	319.737,81	275.896,52	331.229,40

Source BVB.ro

All the analyzed indicators registered an upward trend. Thus, the revenue increased by 7.48% in the analyzed period. The following figure will analyze the evolution of the number of employees and revenue in the period 2017-2019.

The evolution of the number of employees and revenue during 2017 - 2019

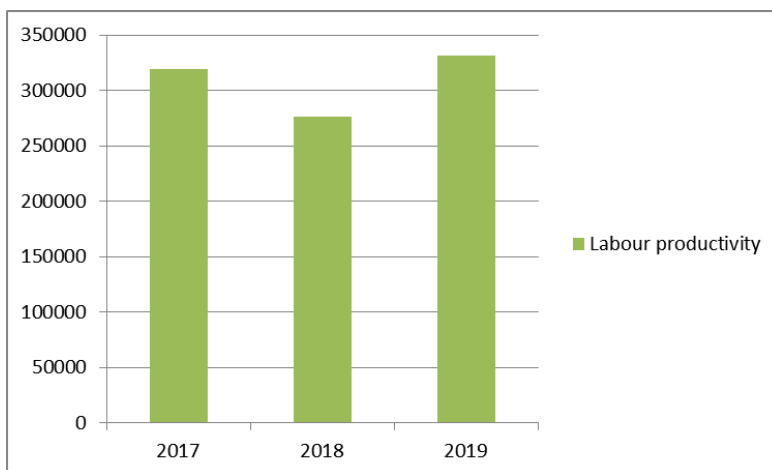
Fig.3



Source: own conceptualization

The evolution of labour productivity 2017-2019

Fig. 4



Source: own conceptualization

According to the graph, Labor productivity increased by 3.59% in the analyzed time interval. Table 2 presents the evolution of the main indicators for conducting the factorial analysis of labor productivity in 2017-2018.

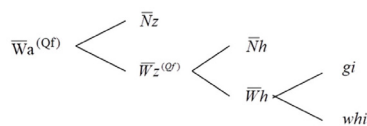
The evolution of main indicators for realising the factorial analysis for the labour productivity between 2017-2018

Table 2

Crt. nr.	Indicators	MU	2017	2018	Indices(%)
1	Revenue (CA)	Lei	93.683.179	99.046.851	106
2	Average number of employees (Ns)	Persons	293	359	123
3	Average number of days worked (Nz)	Days	230	233	101
4	Average number of hours worked (Nh)	Hours	7,3	7,5	103
5	Average annual productivity (Wa)	Lei/employee	319.737,81	275.896,52	86
6	Average daily productivity (Wz)	Lei/day	1.390,16	1184,11	85
7	Average hourly productivity (Wh)	Lei/hour	190,43	157,88	83
8	Average hourly productivity recalculated(Wr)	Lei/hour	-	-	

Source bvb.ro

In the period 2017-2018, the average hourly, daily and annual productivity registered a downward trend, respectively a decrease of approximately 15%. The most significant increase was recorded for the average number of employees, 23% compared to the previous year. The following is a model for the factorial analysis of labor productivity. In addition to this, the factorial analysis of labor productivity for the period 2017-2018 will be performed.

$$\begin{aligned}\bar{W}_a^{(Qf)} &= \bar{N}_z \times \bar{W}_z^{(Qf)} \\ \bar{W}_z^{(Qf)} &= \bar{N}_h \times \bar{W}_h^{(Qf)} \\ \bar{W}_h^{(Qf)} &= \frac{\sum_{i=1}^n g_i \times wh_i}{100}\end{aligned}$$


$$\Delta W_a = W_{a_1} - W_{a_0} = 275.896,5 \text{ lei/employee} - 319.737,8 \text{ lei/employee} = -43.841,2 \text{ lei/employee}$$

$$\Delta \bar{N}_z = (\bar{N}_{z1} - \bar{N}_{z0}) \times \bar{W}_{z0} = (233 \text{ days} - 230 \text{ days}) \times 1.390,1 \text{ lei/day} = 4.170,4 \text{ lei/employee}$$

$$\Delta \bar{W}_z = \bar{N}_{z1} \times (\bar{W}_{z1} - \bar{W}_{z0}) = 233 \text{ days} \times (1.184,1 \text{ lei/day} - 1.390,1 \text{ lei/day}) = -48.011,7 \text{ lei/employee}$$

$$\Delta \bar{N}_h = \bar{N}_{z1} \times (\bar{N}_{h1} - \bar{N}_{h0}) \times \bar{W}_{h0} = 233 \text{ days} \times (7,5 \text{ hours} - 7,3 \text{ hours}) \times 190,4 \text{ lei/hour} = 8.874,2 \text{ lei/employee}$$

$$\Delta \bar{W}_h = \bar{N}_{z1} \times \bar{N}_{h1} \times (\bar{W}_{h1} - \bar{W}_{h0}) = 233 \text{ days} \times 7,5 \text{ hours} \times (157,8 \text{ lei/hour} - 190,4 \text{ lei/hour}) = -56.885,98 \text{ lei/employee}$$

$$\Delta g_i = \bar{N}_{z1} \times \bar{N}_{h1} \times (\bar{W}_{h_{rec}} - \bar{W}_{h0}) = 233 \text{ days} \times 7,5 \text{ hours} \times (167,7 \text{ lei/hour} - 190,4 \text{ lei/hour}) = -39.726,7 \text{ lei/employee}$$

$$\Delta wh_i = \bar{N}_{z1} \times \bar{N}_{h1} \times (\bar{W}_{h1} - \bar{W}_{h_{rec}}) = 233 \text{ days} \times 7,5 \text{ hours} \times (157,8 \text{ lei/hour} - 167,7 \text{ lei/hour}) = -17.159,2 \text{ lei/employee}$$

During the analyzed period, there is a decrease of the average annual productivity by 43,841.29 lei / employee, most of the influencing factors contributing negatively to its modification. Thus, the increase in the number of days worked from 230 to 233 determined the increase of the average annual labor productivity by 4,170.49 lei / employee. It should be noted that the decrease in annual productivity is also due to the decrease in average daily productivity by 48,011.78 lei / employee. The increase of the number of hours worked daily, from 7.3 to 7.5 meant the approach of normality, the management of the company being aware of the fact that there will be permanently a number of hours that will not be actually worked. Thus, the increase in the number of hours worked determined the increase of the annual labor productivity by 8,874.2 lei / employee. However, the hourly productivity, which decreased by approximately 18%, contributes to the decrease of the annual productivity by 56,885.98 lei / employee. This was possible through awareness of the work process, the efficient use of the means of production. The structure of activities determined the decrease of the average annual labor productivity by 39,726.76 lei / employee due to the decrease of the share of activities with an hourly productivity higher than the average registered at enterprise level

in the previous period. At the same time, at the main activities the hourly productivity decreased, an unfavorable situation, reflected in a decrease of the average annual labor productivity by 17,159.23 lei / employee.

3.2 Analysis of the financial profitability of SC Prodlacta SA

The table below presents the main indicators to perform the factorial analysis of the financial profitability rate for the period 2017-2018.

The evolution of the main indicators for realising the factorial analysis of the financial profitability rate

Table 3

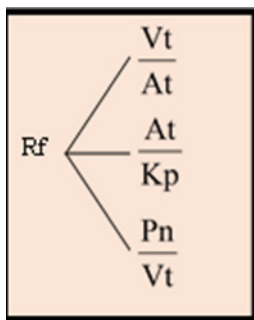
Crt.nr	Indicators	MU	2017	2018	Indices (%)
1	Total actives (At)	Thousands lei	64.681.588	67.491.570	104,34
2	Owned capital (Kp)	Thousands lei	26.769.080	27.709.873	103,51
3	Total revenue (Vt)	Thousands lei	96.275.240	101.747.581	105,68
4	Net income (Pn)	Thousands lei	1.453.644	-688.652	-47,37
5	Financial profitability rate (Rf)	%	5,43	-2,49	-45,77
6	Rotation speed of total assets (Vt/At)	Nr. rotations	1,488	1,508	101,28
7	Equity multiplication factor (At/Kp)	Nr.times	2,416	2,436	100,8
8	Profit at 1 lei total income (Pn/Vt)	lei	0,015	-0,007	-44,83

Source bvb.ro

During the analyzed period, the Net Profit, the Rate of Financial Profitability and the Profit at 1 lei total income registered a downward trend. On the other hand, the highest increase corresponds to total revenues, respectively 5.68%. The model for the factorial analysis of the financial profitability rate is presented below.

The model for the factorial analysis for the financial profitability rate

Fig. 5



$$\Delta Rf = Rf_1 - Rf_0 = (-2,49\%) - 5,43\% = -7,92 \text{ p.p}$$

$$\Delta Rf_{\frac{Vt}{At}} = \frac{Vt_1}{At_1} \times \frac{At_0}{Kp_0} \times \frac{Pn_0}{Vt_0} \times 100 - \frac{Vt_0}{At_0} \times \frac{At_0}{Kp_0} \times \frac{Pn_0}{Vt_0} \times 100 = (1,508 \times 2,416 \times 0,015) \times 100 - (1,488 \times 2,416 \times 0,015) \times 100 = 0,072 \text{ p.p}$$

$$\Delta Rf_{\frac{At}{Kp}} = \frac{Vt_1}{At_1} \times \frac{At_1}{Kp_1} \times \frac{Pn_0}{Vt_0} \times 100 - \frac{Vt_1}{At_1} \times \frac{At_0}{Kp_0} \times \frac{Pn_0}{Vt_0} \times 100 = (1,508 \times 2,436 \times 0,015) \times 100 - (1,508 \times 2,416 \times 0,015) \times 100 = 0,046 \text{ p.p}$$

$$\Delta Rf_{\frac{Pn}{Vt}} = \frac{Vt_1}{At_1} \times \frac{At_1}{Kp_1} \times \frac{Pn_1}{Vt_1} \times 100 - \frac{Vt_1}{At_1} \times \frac{At_1}{Kp_1} \times \frac{Pn_0}{Vt_0} \times 100 = (1,508 \times 2,436 \times (-0,007)) \times 100 - (1,508 \times 2,436 \times 0,015) \times 100 = -8,08 \text{ p.p}$$

The financial profitability of the analyzed economic agent decreased in the analyzed period by 7.92 percentage points. This decrease in the rate of financial profitability is due to the decrease in the efficiency of the operating and marketing activity and an inadequate financial policy. The contributions of the main factors are the following:

- The turnover rate of total assets increased by 1.28%, causing an increase in the rate of financial return by 0.072 percentage points. The acceleration of the turnover rate of total assets is due to the reduction of total assets, on the one hand, and on the other hand, to the increase of total revenues;
- The capital multiplication factor determines an increase of the financial profitability rate by 0.046 percentage points, as a result of the change in the degree of indebtedness;
- The rate of return on total income contributes to a decrease in the rate of financial return by 8.08 percentage points. Regarding the profitability of income, there were noticed unfavorable economic contributions, which means that from the point of view of financial

balance, respectively of the economic efficiency of the exploitation activity, the enterprise faces problems.

3.3 SWOT analysis of SC Prodlacta SA

Strong points

- Prodlacta is a prestigious company in terms of production and marketing of dairy products
- The products offered by Prodlacta are of superior quality, using „mountain milk”
- The quality-price ratio is advantageous
- Prodlacta has processing plants equipped with state-of-the-art equipment, which ensures the realization of products that meet the requirements for food safety
- Prodlacta has ISO certificates attesting compliance with European standards regarding the quality of dairy products
- Own selling points

Weaknesses

- Prodlacta does not have a diversified assortment range
- Lack of investment in advertising
- The average hourly, daily and annual productivity registered a downward trend, respectively a decrease of approximately 15%

Opportunities

- Increasing the territorial area targeted for trade relations
- Diversification of the assortment range
- More efficient organization of logistics activity

Threats

- Competition
- Possibility to record losses / go into insolvency
- Fluctuation of demand

Conclusions

Prodlacta is one of the largest suppliers in the dairy industry. It is ranked 11th in terms of revenue for 2020 for the CAEN code 1051 - manufacture of dairy products and cheeses, 7th in terms of number of employees and 25th in terms of Profit. Thus, the logistics activity should be better developed. This can be ensured by implementing the following actions:

- Implementating the the cross-docking procedure
- Maintaining orders to replenish the picking area and launching them with the picking process of other products

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- Correlation of picking and shipping processes according to the transport route
 - Eliminating the differences between the written stock and the factual stock by using an information system that alerts those responsible for the logistics activity
 - Redesign of the storage space according to the transaction history

Regarding the economic activity, it was observed that in the period 2017-2018 there was a decreasing trend in the case of average annual labor productivity, average daily and hourly productivity. Also, in 2018, Prodlacta registered a loss, and the financial profitability rate decreased by 7.92 p.p. However, the values of these indicators experienced an upward trend in the period 2018-2019, which indicates the change in the overall strategy of Prodlacta and its increase in efficiency. Following the SWOT analysis, it was found that there is a set of weaknesses and threats. In this sense, in order to face the competition and to remain in the top of dairy suppliers, Prodlacta must differentiate itself by the quality and naturalness of its products. Another thing that would determine Prodlacta to record both lower costs and have a low impact on the environment, is the acquisition of a technological line that can save electricity and water consumption. Last but not least, Prodlacta could take out a non-repayable loan to open more processing points with modern technology.

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