

CASE STUDY ON MODEL FACTORIAL ANALYSIS OF TURNOVER IN A MEAT FACTORY FROM SOUTH-WEST DEVELOPMENT REGION

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Abstract

This paper studies the evolution of the turnover, which is determined by the action of several factors, and of particular importance in determining the causes and growth reserves of this indicator has the studying of the structure of sales, structure by type of turnover on groups of products (goods) and the types of customers. Thus, in the case of SC "Diana" SRL, the largest contribution on the turnover was the sold production, with a contribution of 67-78%, followed by sales of goods, with 28-37%. In the period under review, turnover registered a downward trend due to the influence of the three factors with direct action: the average number of employees; annual average productivity and leverage of manufactured products intended for sale.

Key words: agriculture, factorial analysis, Romania, turnover

INTRODUCTION

The turnover is the main entity's form of income, together with other operating, financial and extraordinary incomes, constitutes the totality of the entity's incomes. From this total there will be made the payment of expenses to suppliers, staff expenses due to the state, the payment of debts to banks, the payment of its utilities and other expenses that the entity can have [2].

Turnover is a persistent problem in organizations [1]. The impact of turnover has received considerable attention by senior management, human resource professionals, and industrial psychologists [4]. It has proven to be one of the most costly and seemingly intractable human resource challenges confronted by several organizations globally [3]. Agriculture and food industry have always been sectors of economic activity with great importance for Romania [5].

The option of promoting agricultural development, among Romania's strategic options, requires the adoption of measures necessary to restore as rapidly as possible the economic and social balance.

In this context, the modernization of production, able to respond not only new dimensions of technics, but also to market

requirements, the action the economic laws of the competitive market of agricultural products, will mutate the way production and marketing of agricultural products are made.

One of the most important players in Romania's food market is the company "Diana" which was established in April 30, 1991 having as main business the selling of food and nonfood products. "Diana" store network has developed over time a rich product offering with the support of dozens of producers in the country and abroad. Special attention was given to the tuning of this offer with the needs expressed by customers with specific local supply needs. The brand "Diana" recognizes that, besides financial profit of its business, one that ensures investments in upgrades and new capacities, reliable profit achieved by the real needs of direct customers is most important for the future.

MATERIALS AND METHODS

In this paper, time series have been used with regard to the evolution of economic indicators from financial reports of SC Diana SRL. The study of turnover was based on the factorial analysis. For businesses with production activities, like the one on which we conduct

our research, with activity in processing and commercializing meat, is shaped following the corresponding factorial:

$$CA = \bar{N}_s \times \frac{Pf}{N_s} \times \frac{CA}{Pf}, \quad (1)$$

where: CA means the company's turnover;

\bar{N}_s – the average number of employees;

Pf – manufactured production intended for sale;

$\frac{Pf}{N_s}$ – average annual labor productivity, calculated from the output obtained intended for sale;

$\frac{CA}{Pf}$ – leverage production obtained intended for delivery.

RESULTS AND DISCUSSIONS

Analysis of turnover for a period of time provides useful information on the enterprise's activity and the trend of business. From this point of view, the dynamic of society should be compared with the market dynamics, respectively with the dynamic of the industry. If, for example, the sector of which the enterprise belongs is dynamic, this means that the analyzed company will lose market share, whether as a result of growth at a rate higher sales volumes existing competitors, either the occurrence of new competitors, or the result of simultaneous action of two cases.

If we consider, for example, the activity of "Diana" Ltd., specialized in the production of meat and meat products, development of the turnover reveals the significant characteristics of this company. Trend of turnover is increasing in the six examined years (2008-2013), the increase being at the end of 2013, over 82%. Similar developments were registered in other companies like SC "Unicarm" LLC (84.26%); SC Smithfield SRL (150.17%); SC "CARMOLIMP" LLC (41.00%). Only in the case S.C. "Integra" Ltd., turnover had a decreasing trend, driven by several factors that directly and indirectly, including sales of goods, which decreased during the period we are talking about 63%.

Company SC "Marex" SRL, however, having had a turnover with a continuous upward trend in 2008-2012, a year later became insolvent.

Evolution of turnover is caused by the action of several factors, and a great importance in determining the causes and reserves for growth of this indicator has studying the structure of sales by type of structure, of turnover by product groups (of goods) and the types of customers

If we consider component elements of net turnover, according to Ministry of Finance Order no. 94/1002, this indicator results from the sold production, sales of goods, income subsidies, out of which commercial discounts were deducted. For the analyzed companies, these different elements have contributed to the formation and evolution of the turnover.

Structural analysis should be done with studying the evolution over time of turnover. In this way we can deduce whether the change in sales structure advantaged or not the company from economical point of view. If we consider the information S.C. "Diana" SRL in the past two years (2012 and 2013), the causal link between turnover and the three factors with direct action on it, we arrive at meaningful conclusions on the level of turnover variation.

Table 1. Elements of calculation and factorial influence on turnover in the case of SC "Diana" S.R.L.

Indicators	Symbol	Realized in the period		Indicators (%)
		2012	2013	
Turnover (th lei)	CA	327,688	305,291	93.17
Production off take (th lei)	Pf	232,211	204,167	87.92
Average number of employees	\bar{N}_s	532	542	101.88
Annual average productivity of labor (thousand of lei per employee)	$\frac{Pf}{N_s} = \bar{W}_a$	436.4868	376.6919	86.30
The degree of recovery of manufactured products	$\frac{CA}{Pf}$	1.411165	1.495300	105.96

Source: [6], Own calculation

Using factorial model (1), determining factors action involves the following calculation steps:

$$\Delta CA = CA_{2013} - CA_{2012} = 305,291 - 327,688 = -22,397 \text{ thousand lei,}$$

from which:

1. As a result of the influence of average number of employees:

$$\Delta CA(\bar{N}_s) = (\bar{N}_{s2013} - \bar{N}_{s2012}) \times \frac{Pf_{2012}}{N_{s2012}} \times \frac{CA_{2012}}{Pf_{2012}} = (542 - 532) \times \frac{232,211}{532} \times \frac{327,688}{232,211} = 10 \times 436,4868 \times 1,411165 = 6,159,55 \text{ thousand lei}$$

2. As a result of the influence of annual average productivity:

$$\Delta CA\left(\frac{Pf}{N_s}\right) = \bar{N}_{s2013} \times (\bar{w}_{a2013} - \bar{w}_{a2012}) \times \frac{CA_{2012}}{Pf_{2012}} = 542 \times (379,6919 - 436,4868) \times \frac{327,688}{232,211} = 542 \times 59,7949 \times 1,411165 = -45,734,21 \text{ thousand lei}$$

3. As a result of the influence of the degree of recovery of manufactured production intended for delivery:

$$\Delta CA\left(\frac{CA}{Pf}\right) = \bar{N}_{s2013} \times \bar{w}_{a2013} \times \left(\frac{CA_{2013}}{Pf_{2013}} - \frac{CA_{2012}}{Pf_{2012}}\right) = 542 \times 376,6919 \times \left(\frac{305,291}{204,167} - \frac{327,688}{232,211}\right) = 542 \times 376,6919 \times (1,4953 - 1,411165) = 17,177,59 \text{ thousand lei}$$

Analyzing the data presented in the table, we find that in the case of SC "Diana" SRL, turnover in 2012-2013 declined by about 7%. This was due to several factors action, wrote and explained below.

So, for example, commodity production has declined compared to 2012 with 2%, while at the enterprise level human resources increased by almost 2%. Such manifestations of the two indicators mentioned above contributed to a decrease in average annual productivity by almost 60 thousand lei per employee. Such a situation characterizes a decrease in the use of intensive labor analyzed at the enterprise level, reflecting the low efficiency with which labor was expended. In order to identify reserves of labor productivity it is required the

factorial analysis, highlighting the influences performed by daily average productivity and average hourly productivity.

Among the main reserves of labor productivity at the enterprise level we can mention the following:

- better use of working time per employee;
- better work organization;
- enhancing the qualification of employees;
- developing a motivation policy for employees etc.

We also notice that, in the case of SC "Diana" SRL, between effect indicators (Ca, Pf) and effort indicators (number of employees) the correlation of balance and efficiency demonstrated by the indices are not met in the past two examined years (2012 and 2013); effort indicators index grew faster (101.88%) than effect indicators index (93.17% in the case of turnover and 87.92% in the case of manufactured products intended for sale).

All these events have contributed not only to a lower productivity annual average labor, but allowed the same time and at a favorable evolution of the degree of recovery of manufactured products intended for sale, the latter manifesting itself in an increasing trend of almost 6%. We conclude, therefore, that the reduced level of turnover in the period 2012-2013, was the natural consequence influenced by the three factors with direct action: the average number of employees; annual average productivity and the capitalization degree of manufactured products intended for sale.

While increasing the number of employees by 10 people (1.88%) influenced the turnover, raising it to 6,159,550 lei and increasing recovery of production fabricated from 1.411165 to 1.4953 allowed an increase in turnover of 17,177,590 lei, the third factor, the average annual labor productivity had a negative influence. The downward trend of this indicator, with about 60 thousand lei per employee (-3.7%) was reflected in a substantial reduction in the level of turnover of the company, this a drop of 45,734,210 lei. We can say also that the index of manufactured products intended for sale (86.3%) was surpassed by the average number of employees index (101.88%) which

contributed to the reduction of labor productivity by 3.7%, reflecting unfavorable on the level of turnover, which decreased by 6.83%. On the other hand, the growth in turnover (93.17%) is higher than the growth rate of production of goods (87.92%) which caused increasing recovery of production fabricated intended for delivery (105.96%) with positive impact on economic development of society.

CONCLUSIONS

Analyzing the evolution of turnover we can notice a number of ways to increase its targeting:

- diversifying the offer;
- ensuring an optimum ratio between quality and price;
- improve company image through promotional actions;
- research of the market in order to analyze the demand and harmonize it with the offer.;
- promoting sale prices below of competitors;
- attracting new customers and retaining existing ones through various promotional activities;
- improve product quality and diversification etc.

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