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THE COMPARISON OF ENTREPRENEURIAL FIRMS FOR THE USE OF FINANCIAL MANAGEMENT

1. Introduction

The financial comparison has become a necessary tool of financial management in recent years. It is possible to compare the existing progress, to plan the future activities, to manage and measure the performance of entrepreneurial firms with the help of the right interpretation of financial comparison information.

Two basic ways of the comparison of firms can be used for the financial management.

The fundamental comparison is based on knowledge of the continuities between economic and uneconomic phenomena, on experiences of experts, on their subjective appraisal. It produces many qualitative data, and if quantitative data are used, conclusions are deduced without using algorithm techniques.

The technical comparison uses mathematical and statistical methods to the quantitative processing of economic data with the qualitative economic presentation of results *ex post*. The selection of comparable entrepreneurial firms (enterprises), the preparation of necessary data and indicators and the verification of assumptions about used indicators precede the technical comparison. Enterprise's own technical comparison must be carried out according to the demands of the financial management on the basis of elementary methods or higher methods of the financial comparison.

Both mentioned accesses have their critics and proponents. The technical comparison is the more often used instrument of the financial management of entrepreneurial firms.

For the technical comparison considerable quantity of data from various informative sources of the different character is needed. There is possibility to compare data with the real economic content and with the forecast of the solidity (of the measure of the indeterminateness or the mistake) of data. Conclusions of the comparison can

not be based on distorted data and on bad interpretation of indicators for the financial management.

2. Methods of the comparison of entrepreneurial firms

Selection of criterions is the most important for the comparison of entrepreneurial firms. It is necessary to sense the independence of these criterions. It must be also decided, which entrepreneurial firms will be objects of the comparison. The choice of entrepreneurial firms in the group and the assessment of criterions certainly affect the final effect of the comparison. Then it is acceptable to choose methods of the comparison: one-dimensional method or more-dimensional methods.

2.1. One-dimensional method

The one-dimensional method is the simple method of the comparison of entrepreneurial firms. Enterprises are compared according to one selected criterion (indicator), and so the ordered line of entrepreneurial firms is obtained.

The following criterions are used:

- *absolute* indicators (the balance sum of the basic structure or the sectional structure of assets or liabilities and owner's equity, profit after taxes, etc.);
- *distance* indicators (net working capital, net quick cash means, etc.);
- *ratio* indicators of the effectiveness (return on assets, return on owner's equity or employed equity, etc.);
- *debt* indicators (financial "elevator", debt of owner's capital or invested capital, etc.);
- *market value* indicators (net profit per share, dividend per share, etc.);
- *performance* indicators (earning before interests and taxes, economic value added, etc.);
- *activity* indicators;
- *liquidity* indicators.

This method is satisfying in some cases only and it provides only the basic information about the financial position and the performance of entrepreneurial firms.

2.2. More-dimensional methods

Frequently the ordered line of compared entrepreneurial firms is obtained on the basis of more criterions (indicators) simultaneously. These methods are referred to as more-dimensional methods. More qualified and complex line of compared entrepreneurial firms is obtained according to more applied criterions.

Sometimes the context of criterions is not visible at first, and it is approached to the comparison of entrepreneurial firms otherwise. The other way goes out from principles of more-dimensional decision-making by the decision-making algorithm, for example the decision-making matrix, which records individual entrepreneurial

firms and decision-making criteria (indicators). *Weights* of indicators illustrate, if indicators will be differentiated in their significance or if every indicator will have the same weight for the comparison. The *character* of indicators reflects the quality of higher or lower values of the indicator.

If decision-making algorithm is prepared, the choice method of the comparison of entrepreneurial companies can be applied. There are many various methods. At present the following methods are used:

- simple (weighted) summation of the sequence,
- simple (weighted) quotient,
- points system,
- standard parameter,
- distance from the fictive economic entity.

Methods are ordered in accordance with the complication, each of them has its positive and negative characteristics.

The method of the simple (weighted) summation of the sequence

The method of the *simple (weighted) summation of the sequence* sets in order selected entrepreneurial firms according to any indicator so that entrepreneurial firm with the best value of the relevant indicator gains the first sequence, following firm the best second sequence and so on.

The *control indicator* of the firm represents the simple or weighted summation of the sequence. The best entrepreneurial firm has the *maximum* value of this control indicator.

It is important to take into account features of individual indicators in this method. If it is accepted that the lower value of some indicator is better, in case of this indicator it can be said that the extreme number of points is assigned to the lowest value from entrepreneurial firms. For all other indicators it can be just on the contrary.

The final sequence is seen, when entrepreneurial firms are organized in dependence on the number of the total gained points.

The method of the simple (weighted) quotient

The previous method is very simple and intelligible, but it does not show how entrepreneurial firms differ from each other as far as the selected indicators are concerned.

The method of the *simple (weighted) quotient* tries to solve this problem. It utilizes the middle value of individual indicators with which the value of every indicator in the used decision-making algorithm is divided in case of the increasing or decreasing character of the indicator. The middle value (the arithmetic mean) is given to the numerator in case of the decreasing character of the indicator.

The *maximum control indicator* of the firm is found out by the same way as in the method of the simple or weighted summation of the sequence, taking into account that the attention must be paid to the *character* and *weights* indicators.

This idea is also important for others methods in this article.

The method of the points system

The method of the *points system* is based on the principle that the value of 100 points is ascribed to the entrepreneurial firm which has got the best value of the indicator in case of its increasing or decreasing character.

This method gives points in accordance with other criterions to other entrepreneurial firms.

The *control indicator* of the firm (the weighted arithmetic mean) is obtained as the summarization of values of firm indicators. The control indicator must be the *maximum* value. The question is whether the value of the summarization has the sufficient economic interpretation for the comparison.

The method of the points system does not comply with the variability (the variance of indicators values) within of the group of compared entrepreneurial firms.

The method of the standard parameter

In the method of the *standard parameter* statistical procedures for the comparison of entrepreneurial firms are applied. Selected parameters in its increasing or decreasing character are converted into dimensionless coefficients so-called "normalization" through the standard error.

The *control indicator* of the firm is expressed by the weighted arithmetic mean of standard values and it must be the *maximum* value.

The normalization does not ignore the variability data within the group of compared entrepreneurial firms in this method.

The method of the distance from the fictive economic entity

The method of the *distance from the fictive economic entity* is considered to be the simplest method, because it shows the "distance" of the entrepreneurial firm from the fixed economic entity.

This method works with standard parameters, but it introduces the fixed magnitude of the fictive economic entity. The fictive economic entity is the firm which reached the best indicators values from selected entrepreneurial firms.

The fictive economic entity serves as the norm. Every entrepreneurial firm makes an inquiry, what is its distance from the fictive economic entity-norm.

The *control indicator* of the firm is determined as the average Euclidean distance of individual entrepreneurial firms from the fictive economic entity. The minimum distance from the fictive economic entity is the best one for the evaluation of the entrepreneurial firm in this method.

3. Summary

It is evident from the article how important is to paying attention to all mentioned methods of the comparative analysis, which can be the suitable instrument for the first-rate financial management of selected entrepreneurial firms.

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References

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PORÓWNANIE PRZEDSIĘBIORSTW DLA POTRZEB ZARZĄDZANIA FINANSAMI

Streszczenie

Zarządzanie finansami wykorzystuje informacje z różnych jednomianowych i wielomianowych metod porównywania firm. Metody te wykorzystują te same dane wejściowe, ale czasami dają różne wyniki, które należy racjonalnie interpretować. Warunkiem koniecznym wykorzystania tych metod jest uzyskanie spójności wyników przeprowadzanych analiz.