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THE ANALYSIS OF CYCLICAL VARIATIONS IN FINANCIAL FLOWS IN TOURISM*

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ABSTRACT

Changes in the structure of tourist enterprises' assets occur in the process of their development. In this way emerges new types of business systems; technological processes modernize and reorganize; the structure of consumption changes, etc. This process is characterized especially by more complete mechanization and automation, which leads to series of fundamental changes in production, social and other fields. The cyclical variations of financial flows appear here, which look for new solutions of the existing settings. Changes which occur in the environment require from a tourist enterprise to make a suitable information system, which provide making decisions related to the adjustment of enterprise to the cyclical changes in the environment. Making good decisions on the adjustment of an enterprise to the resulting cyclical variations is ultimately responsible and complex. The cyclical changes are usually fast and unexpected, so a tourist enterprise, at ever shorter intervals, has to adjust to newly established business conditions.

KEY WORDS

TOURISM, ENTERPRISE, DEVELOPMENT, ANALYSIS, CYCLICAL VARIATIONS, SEASONAL VARIATIONS

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1. INTRODUCTION

Business financial analysis starts from the assumption that four components affect the changes in business volume of an enterprise during the time: 1) developmental tendencies of phenomenon in longer observed period – trend, 2) seasonal variations (which manifest at intervals less than one year and repeat in the way for many years), 3) cyclical component of the fluctuations, which repeat in certain, often uneven, periods of several years, and 4) irregular influences (variations of growth and decline), appearing as random phenomena variations.¹

It is necessary to stress that all four components must not become prominent in the business of every enterprise, but all of them include an irregular component. Doing business of some enterprise can have none, one, two or all three other components. It is clear that the financial reports of enterprises, based on annual data, don't contain a seasonal component, while the impact of season was aggregated within a year.

In terms when an enterprise achieves relatively constant level of business, the circulation of financial resources is relatively stable, except if there comes to great changes of terms in business or on the market.

Financing the existing business depends on the efficiency of inventory management, the efficient credit management, approved to buyers, the use of credit approved to enterprises by suppliers, and also on the relationship of confidence with other creditors, i.e. banks. Surely that lower collection of outstanding debts from buyers or stricter crediting conditions by suppliers or creditors will lead to increased needs for permanent financing. In real life, the influence of significant external and internal factors is permanently present.

2. ANALYSIS OF FINANCIAL FLOWS

The economic fluctuations cycle has six basic, successive phases, the economy is going through: 1) depression, 2) achieving lower borderline of depression or even greater decline and the transition to crisis, 3) reviving the economy, 4) prosperity, 5) achieving upper borderline of prosperity (economic boom), and 6) re-fall and entering recession.

The recession is the decline of economic activity as a result of decrease in demand. Production capacities and labour stay unemployed, stocks grow,

¹ Lovrić, M., i dr., (2006), *Statistička analiza*, Banja Luka, p 494

payment operations and banking transactions decrease, and housing construction and investment activities also decrease. The crisis of clean-up operations emerges, i.e. closing down weak, vulnerable enterprises. General indices of industrial production and GDP decrease, the employment increases, decreased production increases costs and decreases profits for enterprises, the prices of shares on stock exchange fall, and the recession can move to a crisis. After establishing a balance at a lower level, there comes to faster or slower revival of the economic activity and there enters into a cycle of increased demand and production conjuncture, and all indicators, unlike the recession, get the upward character. Enterprise rarely does business in the stable conditions, i.e. financing is hard to predict.

If the main external factors of cyclical variations are present in the environment, they outperform the internal initiatives of enterprises. Important internal factors, among other things, are the ability of management to use the opportunities for growth or their inability to prevent the downfall of enterprise's production volume. Every of these factors have different influence on financial resources flows, and therefore we will single out those the most important.

The basic assumption in the analysis of cyclical variations of financial flows is that the factors that have affected the level of phenomena in the past will also function in the same way in the future, without interference of new factors. Financial analysis of cash flows tries to identify the pattern of behaviour in the past, assuming that the identical pattern will continue in future.¹

3. CYCLICAL TRENDS IN THE ECONOMY

These variations in the economy occur in the form of rotation between the expansion and recession (contractions). These phenomena appear in time interval of several years, and their demonstration is observed in long time series, where some cycles last from one to three years, and the others for several years. The rotations of uplift and crisis (recession) period in these cyclical trends are called the conjuncture fluctuations. Being familiar with these trends and their anticipation is important as for the business policy of a tourist enterprise, as well as for the stabilization policy of the state, which achieves by taking special anti-cyclical measures. Fluctuations in the economy can have a general character and interact on macro-economic aggregates such as GDP, prices, employment, rate of investment, etc., and there can also be the fluctuations in the specific economic sectors such as export and import or the fluctuations in the specific branches of economy. The cyclical trend of financial resources is a form of seasonal

¹The same, p 496

circulation, which includes also the impact of external changes on enterprise's business within several years. Economic cyclical variations, characteristic for some economic branches, are long-term and not as properly predictable as the seasonal variations. The variability of economic cycles, which affect an enterprise or economic branch, depend on much larger number of variables, like the competitive conditions on the market and the changes in raw material prices.

Despite of the above mentioned differences, the same principles apply for seasonal variations, as they apply for the cyclical variations. Standstill in funds inflow, which often occurs during the decline or increase of activities within the cycle, can be more aggravated by delaying in making decisions, because often happens that management, according to daily indicators, tries to assess whether an enterprise is on the threshold of certain long-term change or not. The sharp decline in newly erected buildings, for example, will produce stocks in building materials in manufacturers and wholesalers, who don't react immediately on decreased demand. Decline in sales occurs, and also a fall in prices of lumber and other goods, while the management falls into the financial crisis. Further production will turn raw materials into products, which cannot be sold, and therefore the production should be decreased. Lower volume of production and lower prices lead to decreasing of the final flow of funds from current sales, while the collection of previous, higher sales volume also exhausts.

The period of standstill in the circulation of funds in tourism requires a certain reply of the management to a certain number of complex questions. Management must determine with some certainty whether the change has been done, and after that to start with stocks management, by reducing quantities and also number of acquisitions and running costs, where ever it is possible. As a results of this system implementation, dependent acquisition costs and costs of stocks decrease in profit and loss account. It is also very important to manage carefully with the structure of capital, in order to adjust the credits by sources and maturity to newly arisen situation and correct as necessary the structure of capital. In time when the funds circulation is accelerated, the delay in making relevant decisions results in insufficient stocks, which don't follow the increase in sales volume of tourist services. Management of a tourist enterprise can employ more workers in a purchasing department in that case, and introduce a second shift in restaurants and cafe bars, although this will incur costs higher than the common costs, which will affect profitability. Increased sale of tourist services will logically lead to the increase of credits approved to clients who use the tourist services. In this way, the cyclic growth will require the engagement of additional capital, in order to provide the increased needs for working capital and financing the increased volume of services, and thus the increase of business income. There can also be expected the additional investments in tourist facilities and the purchase of new equipment.

4. STATISTICAL CALCULATION OF CYCLICAL VARIATIONS

The cyclical variations will be presented on the example of fruit juices sale in the packaging of 0.2 l. The sale of fruit juices through coffee bars and restaurants in the packaging of 0.2 l, in ten-year-lasting period is as follows:

Year	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Sale	840	856	900	870	890	901	920	956	988	1030

For the calculation of cyclical variations is necessary to calculate first the trend values¹. Results are presented in table below:

Table 1: Calculation of cyclical variations

Year (X)	(y _i)	Year designation (x _i)	x _i y _i	x _i ²	\hat{y}_i^{linear}	Algebraic deviation (y _i - \hat{y}_i)	Cyclical variations $G = \frac{y_i}{\hat{y}_i} \cdot 100$
1	2	3	4	5	6	7	8
2005	840	-4.5	-3780	20.25	831.24	8.76	101.05%
2006	856	-3.5	-2996	12.25	849.87	6.13	100.72%
2007	900	-2.5	-2250	6.25	868.51	31.49	103.63%
2008	870	-1.5	-1305	2.25	887.15	-17.15	98.07%
2009	890	-0.5	-445	0.25	905.78	-15.78	98.26%
2010	901	0.5	450,5	0.25	924.42	-23.42	97.47%
2011	920	1.5	1380	2.25	943.05	-23.05	97.56%
2012	956	2.5	2390	6.25	961.69	-5.69	99.41%
2013	988	3.5	3458	12.25	980.33	7.67	100.78%
2014	1030	4.5	4635	20.25	998.96	31,04	103.11%
n = 10	9151	0	1,537.5	82.5	9,151	0	-

Equation of a linear trend is:

$$\hat{y}_i = 915,1000 + 18,6364x_i$$

Origination: 31st December 2005

Unit for X: one year

Unit for Y: one thousand pieces.

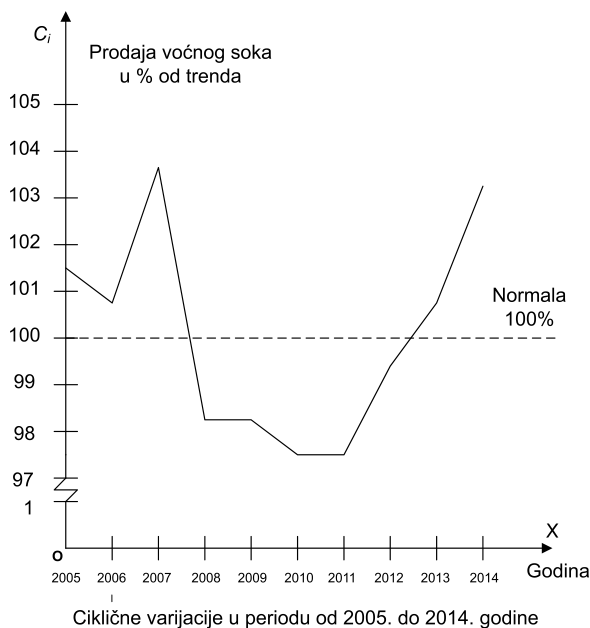
Parameter a=915.1000 shows the theoretical value of trend at the origin. It means that sale of fruit juices on 31st December 2015 was amounted 915.1

¹ Savić, M., (2005), *Poslovna statistika*, Subotica, p 135

thousand pieces. Parameter $b=18.6364$ shows that the sale of juices, in the average, from year to year has increased for 18.6364 thousand pieces.

Cyclic variations are calculated based on the formula shown in the last column of *Table 1* below.

Diagram:



According to the diagram, there can be noticed the cyclical variations, while the sale of fruit juices in the packaging of 0.2 l in the period from 2005 to 2007 was above normal.

There could be said that the cyclic growth will require the increase in, as mid-term as well as long-term, financing in order to engage an additional working capital and other financial needs, while slowdown will first of all lead to stock increase, until a management doesn't coordinate business efforts, and only after that will start a deposit of funds, by which will be able to service the credit commitments. This condition will be easier to realise only if the working capital and the volume of production are managed in accordance with the cyclical variations, i.e. aiming to decrease as the capital, as well as the sales volume.

5. CONCLUSION

Identification of the economic environment cyclical variations leads to the decrease of possible mistakes in making business decisions in a tourist enterprise. The financial management decisions must always adjust to the cyclical variations, which mean that the business policy permanently changes and adjusts „the trajectory course“by the enterprise manages with. If the situation moves in unwanted direction, the management must notice it first. It means that the management must establish the cyclical process and timely avoid its negative consequences to a tourist enterprise business. If the cyclical process has already developed in unpredicted direction and reached the level that caused much damage, it proves that the management is badly predicted the cyclical flows, or is incapable to react on time. Such management, as a rule, neither is capable to remediate the existing situation. The obligation of the management is to anticipate the cyclical variations and puts into service of increasing the business efficiency by timely reduction, i.e. increase of the volume of engaged funds, in order to decrease the engagement costs, on the one hand, and the increase of total income aiming to make as higher profit as possible, on the other hand.

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ANALIZA CIKLIČNIH VARIJACIJA FINANSIJSKIH TOKOVA U TURIZMU*

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REZIME

Promene u strukturi sredstava turističkih preduzeća javljaju se u procesu njihovog razvoja. Na ovaj način se javljaju novi oblici poslovnih sistema, tehnološki procesi se modernizuju i reorganizuju, menja se struktura potrošnje, itd. Ovaj proces naročito karakterišu kompletnija mehanizacija i automatizacija, koje dovode do niza fundamentalnih promena u proizvodnim, društvenih i drugim oblastima. Dolazi do pojave cikličnih varijacija finansijskih tokova novca koje traže nova rešenja za postojeće postavke. Promene u životnoj sredini zahtevaju od turističkog preduzeća da napravi odgovarajući informatički sistem koji će obezbediti donošenje odluka u vezi sa prilagođavanjem preduzeća cikličnim promenama u okolini. Donošenje ispravnih odluka o prilagođavanju preduzeća cikličnim varijacijama je krajnje odgovorno i složeno. Ciklične promene su obično brze i neočekivane, pa turističko preduzeće mora da se, u sve kraćim intervalima, prilagodi novonastalim uslovima poslovanja.

KLJUČNE REČI

TURIZAM, PREDUZEĆE, RAZVOJ, ANALIZA, CIKLIČNE VARIJACIJE, SEZONSKA VARIJACIJE

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