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## **K. WALSH'S APPROACH TO MANAGING THE COMPANY'S VALUE BASED ON THE BALANCED GROWTH EQUATION**

***Abstract:*** *the article considers the method for overseeing the organization's worth based on the equilibrium of the growth equation which was introduced by K. Walsh. It describes the theoretical foundations basing on K. Walsh's book «Key management indicators», gives the comprehensive outlook on internal and external environment of PJSC «Rostelekom», which in turn will be used as an example for calculating balanced growth equation and giving the essential conclusions based on it. The used methods of research are: analysis, classification, measurement, description, comparison. The article provides the results of calculation of balanced growth equation, its interpretation and suggestions on management of company's value.*

***Keywords:*** *sustainable growth, maximization of shareholder value, strategic company management, Walsh, value management methodology, balanced growth equation, organizational development, cost management, company's value.*

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## **ПОДХОД К. УОЛША К УПРАВЛЕНИЮ СТОИМОСТЬЮ КОМПАНИИ, ОСНОВАННЫЙ НА УРАВНЕНИИ СБАЛАНСИРОВАННОГО РОСТА**

***Аннотация:** в статье рассматривается метод контроля за стоимостью организации, основанный на уравнении сбалансированного роста, который был введен К. Уолшем. Опираясь на книгу К. Уолша «Ключевые показатели менеджмента», автор описывает теоретические основы, дает комплексный обзор внутренней и внешней среды ПАО «Ростелеком», которая, в свою очередь, используется в качестве примера для расчета уравнения сбалансированного роста и предоставления существенных выводов на его основе. В качестве методов исследования использованы: анализ, классификация, измерение, описание, сравнение. В статье приводятся результаты расчета уравнения сбалансированного роста, его интерпретация и предложения по управлению стоимостью компании.*

***Ключевые слова:** устойчивый рост, максимизация акционерной стоимости, стратегическое управление компанией, Уолш, методология управления стоимостью, уравнение сбалансированного роста, организационное развитие, управление затратами, стоимость компании.*

The pursuit of sustainable growth and the maximization of shareholder value are essential goals in strategic company management. K. Walsh's value management methodology is one particular approach that has earned attention and appreciation. The balanced growth equation, a structure meant to reconcile many aspects of

organizational development. This introduction sets the setting for an investigation of K. Walsh's distinct approach to managing a company's value, diving into the ideas underlying the balanced growth equation and the influence it has on developing solid, comprehensive plans for organizational success.

K. Walsh presented an alternate approach on cost management, diving into a critical part of business management: the balance between profit, assets, and growth. It is critical to strike a balance between these indications since any bias toward one component over the others can lead to substantial issues in the company's operations. Managers are recommended to implement forward-thinking initiatives while acknowledging both the benefits and drawbacks of expansion. It entails proactively evaluating the best growth rates that the organization can sustain comfortably, guaranteeing a balanced strategy that accommodates all aspects of its operations.

The equation of balanced growth rate which was introduced by K. Walsh has the following form:

$$R/GT = E, \tag{1}$$

Where R – retained earnings/revenue,

G – growth rate of revenue;

T – current assets/revenue;

E – numerical value of the fraction on the left.

According to this equation, when  $E = 1$ , the cash flow is neutral; when  $E > 1$ , the cash flow is positive; and when  $E < 1$ , the cash flow is negative. This approach contends that cash flows stemming from core operations should remain in equilibrium for a given growth rate. The model provides a framework for managers to focus on the fundamental aspects that have a substantial impact on the entire status of the organization, notably profit, current assets, and growth rates [1].

This model gives the opportunity to determine three main factors which affect the cash flows of the company.

1. The ratio of current assets to revenue from realization of products and services.
2. The ratio of retained earnings to revenue from realization of products and services.
3. The growth rate of revenue.

To ensure the positive growth rate of revenue it's necessary for the company to have large inventories and big number of accounts receivables. Thus, since the revenue is about to grow, the accounts receivables and inventories will also increase, and for that the inflow of cash should also increase, while the retained earnings can't provide it [2].

Not only Keiran Walsh has suggested the equation which can adequately assess company's growth. There are also multiple recent researches which study this topic and offer their perception of variables which affect company's growth. For example, the scientific paper of Vuković B, Peštović K, Mirović V, Jakšić D, Milutinović S, has analyzed the effect of five independent variables on the growth of 1333 observations of companies in the European large and very large companies. The independent variables observed were company size, current ratio, return on total assets, return on equity, and leverage. The growth measured by the sales growth rate was considered as a dependent variable. Their equation has looked like this:

$$Growth_{it} = \beta_0 + \beta_1 X1 + \beta_2 X2 + \beta_3 X3 + \beta_4 X4 + \beta_5 X5 + \varepsilon_i \quad (2)$$

$Growth_{it}$ -dependent variable;

$\beta_0$ -model constant;

$\beta_i$ -coefficient of independent variables;

X1-Size of the Company (independent variable);

X2-Current Liquidity (independent variable);

X3-Profitability measured by ROA (independent variable);

X4-Profitability measured by ROE (independent variable);

X5-Leverage (independent variable);

$\varepsilon$ -error with a normal distribution;

i-signify each company ( $i = 1, \dots, N$ );

t-signify the period of time ( $t = 1, \dots, t$ ).

The multiple regression analysis was applied in order to research the key variables that have a determining impact on the growth of the observed companies. Obtained empirical evidence showed that smaller European companies in the agriculture, forestry, and fisheries sector grow faster than larger ones, rejecting the assumption of Gibrat's Law [4].

Another interesting research was performed by Konstantins Cernavskis in his paper «Financial stability of enterprise as the main precondition for sustainable development of economy». In his paper he conducted an investigation of theoretical aspects of financial analysis and the enterprise financial condition assessment methods and procedures predetermined the necessity of working out a methodology for stage-wise stabilization procedure. The procedure that he suggested has three main stages: identification, systematization and stabilization. See more details in the figure 1 below.

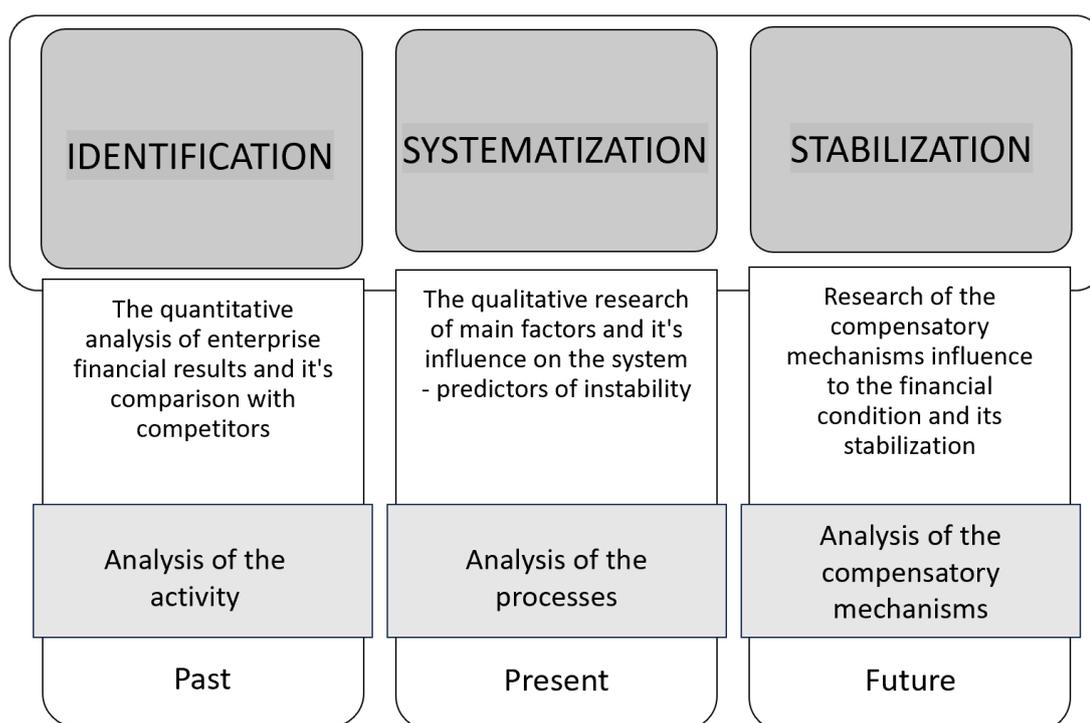


Fig. 1. The procedure of stage-wise analysis of enterprise stabilization [3]

The author also suggests that some integral or integrated indices of financial activity should be used, commensurate with absolute values of property and funding

sources [3]. This method of analytical comparison may be presented in the form of two groups of identifiers as shown in the table below.

Table 1

Identifiers of financial activities by Konstantins Cernavskis [3]

Identifiers	
Integral (integrated)	Absolute values
Possibility of bankruptcy Sustainable growth pace Free cash flow	Property Financial results Funding sources (assets, turnover, profit, equity capital, total value of debt)

To demonstrate how the equation of balanced growth works the article will provide the example based on PJSC Rostelekom's data. Let's start with the characteristics of internal and external environment of the chosen company. Rostelekom is one of Russia's leading telecommunications firms, offering a wide range of services to both household and commercial users, including voice, data, and video. Rostelekom's financial condition in 2022 demonstrates a great performance in terms of revenue growth, profitability, and liquidity. Rostelekom's revenue growth in 2022 will be primarily driven by an increase in broadband and pay-TV customers. The firm has been investing in infrastructure to extend its broadband network and provide clients with higher internet speeds. Rostelekom's broadband user base increased by 7% in 2022 as a result of this expenditure. The business also announced a 12% growth in pay-TV customers as a result of the introduction of new programming and channels.

Rostelekom's improved profitability in 2022 was mostly due to lower operational expenditures. The corporation has reduced its operational expenditures by using cost-cutting strategies such as streamlining its network infrastructure and decreasing its headcount. Furthermore, Rostelekom's profitability EBITDA, which reflects the profitability of the company before interest, taxes and depreciation and is the ratio of EBITDA to revenue, increased from 31,5% in 2018 to 39,6% in 2022. Higher income and fewer operational expenditures contributed to its development. The dynamics you can see in the Figure 1.

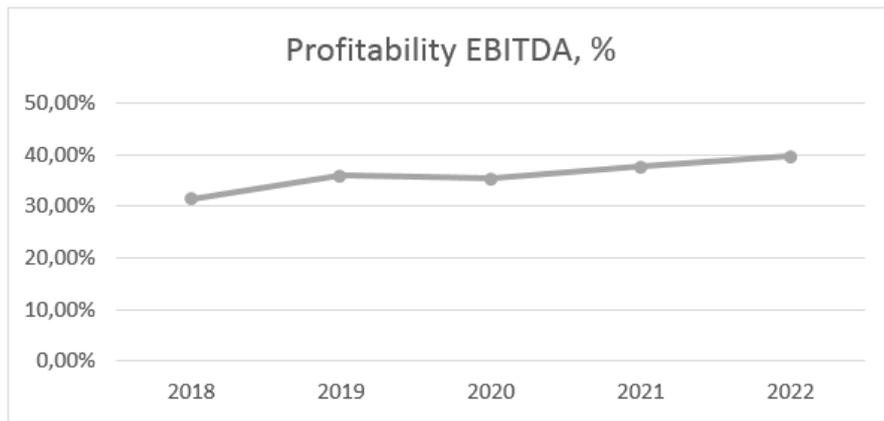


Fig. 2. Profitability EBITDA of Rostelekom from 2018–2022 [6]

Rostelekom's current ratio of 1.2 indicates that the firm has sufficient current assets to meet its current liabilities. Rostelekom's cash and cash equivalents climbed from 10,1 to 52,3 billion rubles in 2022 (see figure 3), indicating that the firm has been producing excellent cash flows.

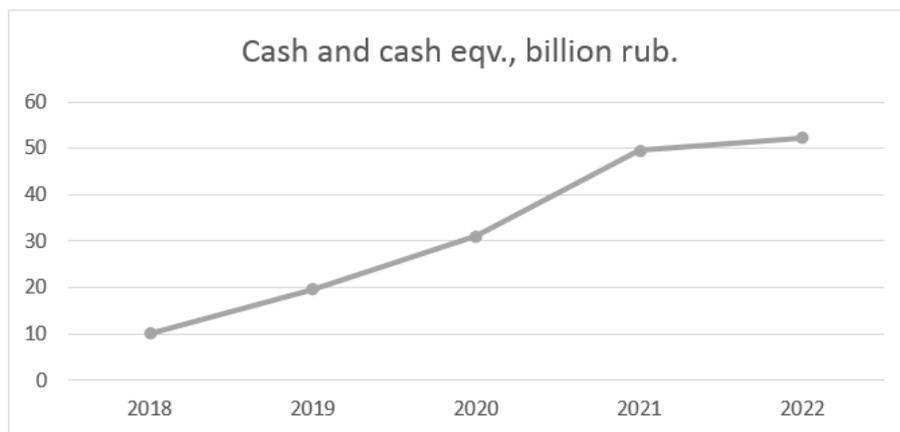


Fig. 3. Cash and cash equivalents of PJSC Rostelekom from 2018–2022 [6]

Furthermore, Rostelekom's debt-to-equity ratio of 0.4 indicates that the firm has a prudent debt strategy and does not rely substantially on debt financing. This is a good indication for investors since it means that Rostelekom is less likely to fail on its financial commitments. Price to equity ratio is equal to 7.92, it means that investors are willing to pay approximately 7.92 times the company's earnings for each share. It's a little bit lower than average P/E ratio for telecommunication industry where it's equal to 11,05. Price to sales ratio is equal to 0,38 which is less than 2 is considered good for this industry. Return on equity for Rostelekom is equal to 15,53% with average industrial equal to 24,7% is considered low.

Now, when the information provided above gives the full picture of Rostelekom's external and internal environment, it is possible to continue with the calculation of equation of balanced growth rate according to K. Walsh. The data for the calculations is taken from financial report of Rostelekom from 2021 year. Thus, to calculate the equation of K. Walsh it is needed to have the information about following balance sheet items: revenue, retained earnings, current assets, growth rate of revenue. The information about those is given in the Table 1.

Table 2

## PJSC Rostelekom's financial data from 2021 [5], thousands rubles

Revenue	580 092 000
Retained Earnings	6 317 000
Current assets	167 877 000
Growth rate of revenue	0,12

The retained earnings was taken as the increase of the indicator from 2020, because the denominator in R, which is retained earnings divided by revenue contains the revenue from sales for the year and the balance sheet does not provide yearly results. The growth rate of revenue was taken as the average revenue growth over four years.

The table below demonstrates the ratios of retained earnings to revenue (R), current assets to revenue (T), growth rate of revenue (G), and the result of calculation using the formula (E).

Table 3

## Calculation of K. Walsh's equation of balanced growth on basis of PJSC Rostelekom data [5]

Retained Earnings/Revenue (R)	0,011
Growth rate of revenue	0,060
Current assets/Revenue (T)	0,289
E	0,31

The ratio between current assets and revenue is 0,289 which indicates that for every ruble of revenue it requires 28 kopecks of increase in current assets. Consequently, with an increase in profit next year, for every million of revenue, it will be

required an increase in current assets by 289 thousand, that is, 289 thousand of additional financing.

The ratio of retained earnings to revenue is 0,011, that is, only 1,1 kopecks of profit remains from each ruble of revenue, retained among shareholders and accounted for in the balance sheet as a source of financing. This is not enough because as we can see from the previous calculation, for ensuring the growth we need a surplus of at least 28 kopecks of current assets on each ruble of revenue.

The ratio of R/T is equal to 3,7% which represents the growth rate of current assets which is financed straight from retained earnings, while the real growth rate is 12%, meaning that only one third part is financed from internal source and other 8,2% is financed from borrowed capital.

Thus, as a result of calculations, we receive E equal to 0,31 which is less than 1. This indicates that only 1/3 part of revenue is financed by retained earnings, so there is a high deficit of cash. The factor of equilibrium should be increased to the value 1, to ensure the neutral state of cashflows. The measure of how to improve the situation of PJSC of Rostelekom will be described in the next chapter.

To improve the value management of any company, managers should focus their main efforts on the critical aspects of the company's activities. Significant adjustments are required to guarantee that the equilibrium factor is not less than 1.0. Only then would the firm no longer need to hunt for money «on the side» to assure its future growth.

Basically, there are three options designed to solve this problem, each of which comes primarily from:

- 1) sales growth;
- 2) retained earnings values;
- 3) the ratio of current assets to sales revenue.

This variant of the growth model is based on the dependencies existing between current assets, retained earnings and revenue growth, and they are different for each company. However, for companies with a more stable asset structure and a normal share of debt, a more general-purpose model is required.

Each variant is based on the fact that it is necessary to change some (in each variant its own) indicator in order to obtain an equilibrium factor equal to one. It is also calculated how much it is necessary to change the initial indicator in order to achieve the desired result. Nevertheless, each option which will be listed below is not optimal and has more the theoretical nature.

So, the first option that the PJSC Rostelekom can consider is the prevention of growth to ensure it's only 3,8% next year, which can be quite problematic and is hard to realize but, in this case, Rostelekom will achieve the equilibrium ( $0,011 / (0,038 * 0,289) = 1$ ).

The other option is increase of share retained earnings from 0,011 to 0,034 and thus the equation will have the following form:  $0,034 / (0,12 * 0,289) = 1$ . This way the company will achieve the equilibrium. Third option is the decrease of share of current assets from 0,289 to 0,0916 which is quite radical reduction, nevertheless the company will achieve the following equation:  $0,011 / (0,12 * 0,0916) = 1$ .

There are several measures which can be done with the first version of the model to make it more versatile. First, take into account all the assets indicated in the balance sheet, which may be affected by growth. Secondly, to provide for the possibility of mixed financing: at the expense of debt and equity capital. Each dollar of retained earnings should be combined with borrowed funds in accordance with the target coefficient of the owner's quota (loan capital to equity capital).

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