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Sustainable growth rate in the strategic analysis of brewery industry

K. Daszyńska-Żygadło, T. Słoński

Department of Financial Management, Wrocław University of Economics

Abstract

An analysis of sustainable growth rate could considerably improve an assessment of Strategic Business Unit's potential. The sustainable growth rate analysis enabled us to compare a possible growth rate within the brewery industry with a growth rate that firms had achieved. To demonstrate this in more depth, we presented a case study of the brewery industry in Poland and Czech Republic.

Key words

Growth, strategic analysis, seer industry, corporate growth.

Anotace

Analýza trvale udržitelné míry růstu by mohla značně zlepšit hodnocení potenciálu Strategického Obchodního Svazu. Analýza trvale udržitelné míry růstu nám umožnila porovnat potenciální míru růstu v pivovarnickém průmyslu s mírou růstu, kterou firmy již dosáhly. Pro hlubší vysvětlení jsme v článku uvedli případovou studii pivovarnického průmyslu v Polsku a České Republice.

Klíčová slova

Růst, strategická analýza, analýza průmyslu, společenský růst.

Introduction

A main purpose of the study was to analyze connections between growth, financing growth and a strategic analysis of a company. A subsequent literature review has been performed which lead to some interesting findings and conclusions. One of financial tools – a sustainable growth rate analysis has been incorporated into the strategic analysis of chosen brewing companies in Poland and the Czech Republic. Results of the analysis showed many similarities as well as differences in running global businesses locally.

A corporate growth is an important issue that has been challenging managers for many years. To accomplish the corporate growth, firms seek to create a value by serving customers through differentiated goods and services. But the growth of sales and assets itself is neither a company's key objective, nor a guarantee of value creation. Additionally, an unrestrained growth may be inconsistent with established financial policies. If there is no cooperation between the strategic planning objectives and the financial managers growth objectives, financial policies become mutually incompatible. To increase this lack of cooperation, certain strategic tools incorporating the financial aspects of effectiveness could be established.

A key issue regarding strategic planning models that are presented in the literature1 is that they do neither explicitly consider financing, nor the amount of cash flow that is sufficient to finance the strategy. Many models are currently available to assist companies in the efficient allocation of resources. However, those models do not analyze abilities of companies to finance certain strategies. There are models that include financial aspects, but only a level of financial resources is taken into account, which is not sufficient criterion from the efficiency and value creation perspective. Such an analysis can be completed using the SPACE model

[1] There are many literature positions on strategic analysis and strategic planning, among which is: Hooley G., Saunders J., Piercy N.: *Marketing Strategy and competitive positioning*, third edition, Pearson Education Limited 2004

(Strategic Position and Action Evaluation), created by H. Rowe, R. Mason, K. Dickel [10], that analyzes a strategic position of company and evaluates its activities.

Another strategic planning model, a growth/share matrix, developed by the Boston Consulting Group (BCG matrix), does include an issue of cash flows, but it implicitly assumes that a the market share expresses an ability to generate cash and the market growth rate – necessary capital expenditures [4]. However, in practice, it does not always work that way. For example, let us take into account a business that has a low market share in a mature, slowly growing market. If capital investment requirements are low in relation to the cash generated from the operations, it could be a lucrative business to invest in. At the same time, a business having a high market share might not always generate an excess of cash, because this depends on the capital investment requirements of the business and the profit margin it yields.

Other models, such as the General Electric matrix, created by McKinsey & Company, do not consider cash flow issues at all. Instead, they analyze the ROI ratio, i.e. investment rate of return. The ROI has no direct relationship to cash flows and is not perceived in the financial management literature as a ratio revealing the effectiveness of various financial strategies.

The strategic analysis could be noticeable improved by integrating it with financial planning models that could show an ability of a company to generate cash. The sustainable growth model, that we have considered and discussed in this paper, is an analytical framework illustrating factors that have an impact on cash sufficiency.

Sustainable growth rate

The model of sustainable growth rate, analyzed in details in the 1977 article by R.C. Higgins [5], describes a balance in reference to funds financing growth of company and expenditures for sales growth. Many characteristics and nuances of this financial planning model have been addressed in a number of sources [1, 2, 3, 8, 9, 11, 12]. According to Higgins, sustainable growth is an annual percentage increase in sales consistent with a firm's established financial policies. In Higgins model, factors that influence the maximum sustainable long-term sales growth rate have financial character, i.e., a return on assets, a debt-to-equity ratio, the total assets to equity, a profit margin, and a dividend payout ratio. The sustainable growth rate model is an analytical tool for firms wanting to maintain a target payout ratio and capital structure without issuing a new equity, providing an estimate of the annual percentage increase in sales that can be supported by, and is internally consistent with firm's financial policies. If higher growth is realized, it can be sustained under conditions of modifying one or more company financial policies, including an additional external financing. The opposite situation with lower sales growth enables firms to increase dividends, reduce leverages or increase the investment in networking capital.

One of general assumptions that narrow possibilities of an application of the model is a stable external environment in which the company operates. Funds available for investments consist of retained earnings, depreciation write-offs and an increase of debt proportional to an increase in equity. Therefore, it is assumed that no new common stock would be issued. Those funds finance the increase of company's assets. Depreciation write-offs are used as a whole to renew an amortized part of the assets, while retained earnings finance the increase in assets related to sales growth. Consequently, the company growth is financed by its retained earnings.

Depending upon the company's specific situation and the market it operates in, it may not be possible to use this model in practice. There are four assumptions that limit an application of the model for planning purposes: 1. Depreciation write-off equaling the investment expenditures incurred to maintain the current level of sales, 2. Retained earnings being the only internal source of financing the company's growth, 3. The company being financed according to an optimal capital structure, 4. The company not issuing new stock. The abolition of those restrictions would be aimed at a more adequate calculation of the funds available to finance new activities and their investment requirements [4]. A more realistic model that changes the limiting assumptions was presented by V. Govindarajan and J. Shank [4]. It could especially be applied when sales growth cannot be financed by retained earnings. This model could be implemented for a wide range of strategic problem

solving and decision making processes, together with the strategic analysis tools.

As a result of our literature review findings, the aim of this article is to apply the sustainable growth model to a strategic analysis of leading companies in the brewery industry operating in Poland and the Czech Republic.

A formula for the cash sustainable growth rate will be derived from a framework introduced by Govindarajan and Shank [4]. This framework will reveal sources of internally generated cash that Higgins model overlooked. A specific market and a financial situation within brewery industry leaders makes Higgins model unsuitable for the analysis.

Givindarajan and Shank [4] aimed at defining and determining factors of a "cash sufficient" company. A company that has an ability to maintain a cash equilibrium could be defined as "cash sufficient". That is, funds available for investments equal the funds required for the investment.

Available sources of financing are:

Internally generated capital – this depends on two major factors: operating efficiency resulting from a return on sales and financial strategies that include a tax planning and a dividend policy,

Financial leverage – a debt is an important source of financing that allows a company to achieve a higher return on equity by maintaining a constant return on assets. A debt-to-equity-ratio cannot be increased indefinitely. Investors would accept a higher risk related to a higher leverage only if they expect to earn higher rates of return,

New equity – in theory, a new issue of equity is an available source of financing, but there are many market conditions that lower realistic possibilities of using it.

Investment requirements depend upon an amount of cash required to maintain the current capacity and to support the growth of sales. An intensity of the investment depends on the industry in which the company operates in. Factors that determine fund requirements include:

Working capital requirements that support incremental sales,

Investment in plant and equipment supporting incremental sales, as well as investment required to increase the capacity,

Required reinvestment in plant and equipment to maintain the current production capacity.

Achieving a financial equilibrium would enable the funds available for investment to be equal to the funds required to be invested.

In the presented framework, growth is being financed without issuing new stock and without modifying the financial strategy in terms of using a debt. Therefore, the debt-to-equity-ratio is maintained and the dividend policy remains unchanged.

Funds financing the growth of company can be presented as:

$$\textbf{(Retained Earningst + Depreciation write-offt) + (Retained Earningst + Depreciation write-offt) (Debtt-1/Equityt-1)} \quad \textbf{(1)}$$

Following Govindarajan and Shank framework, both sides of the equation will be divided by sales revenues. An important assumption to include is that funds available for investment and investment requirements are proportionally related to sales revenues. From a methodological point of view, these linear relationships are only suitable for application in certain circumstances. Explaining the changes of depreciation write-offs by the changes in sales revenues is not always correct. But, taking into account that depreciation is a derivative of the investment in fixed assets and the relationship between investment expenditures and sales growth is well-grounded, the linear relationship could be justified, although usually to be observed only in large corporations.

$$\mathbf{FO' = (m(1 - d) + DW') + (m(1 - d) + DW')\left(\frac{D}{E}\right)} \quad \textbf{(2)}$$

Where:

FO' = FO/S0 – funds from operations financing the growth as a percentage of sales,
S0 = sales revenues at the beginning of the period,
m = profit margin,
d = payout ratio,
DW' = depreciation write-off as a percentage of sales,
D = debt, and
E = equity.

Incorporating a growth rate in the above equation, multiplying both sides by S0 and conducting some simple conversions, we can derive the amount of required financing for the next period.

$$\boldsymbol{FO = (1+g)S_0(m(1-d)+DW')\left(1+\frac{D}{E}\right)} \quad \textbf{(3)}$$

Where:

g = growth rate of sales

The sustainability assumption will be met if the funds financing the company's growth are spent to finance the increase in assets required, only to realize increased sales. On the right hand side of the cash sufficiency equilibrium equation there are the required capital expenditures that can be presented in the following equation:

$$\boldsymbol{\Delta CE = \Delta FA + \Delta NWC + Rei} \quad \textbf{(4)}$$

Where:

Δ CE = capital expenditures for asset growth,
Δ FA = increase of fixed assets related to sales growth,
Δ NWC = increase of net working capital, and
Rei = capacity maintenance reinvestment rate.

Therefore, the growth in sales requires investment in additional fixed assets and net working capital. In this model, it is assumed that the entire depreciation write-off is not entirely spent on maintaining the current level of sales. If the capacity maintenance reinvestment rate, Rei, is lower than the depreciation write-off, the remaining amount could be used to finance future growth. The equation presenting the funds required to be invested as relation to sales then becomes:

$$\boldsymbol{CE' = (gS_0)FA' + (gS_0)NWC' + \big((1+g)S_0\big)Rei'} \quad \textbf{(5)}$$

Where:

CE' = CE/S0
FA' = FA/S0
NWC' = NWC/S0
Rei' = Rei/S0

The key factors of this sustainable growth model are presented as a percentage of sales. One could criticize it for simplifying the reality. Although, while other results of financial planning procedures are given in values, the assumptions here are made on a basis of percentage of sales. Therefore, the level of simplicity is similar.

To achieve the expected cash sufficiency equilibrium, both amounts derived from equations (3) and (5) must be equal.

$$\boldsymbol{(1+g^*)S_0(m(1-d)+DW')\left(1+\frac{D}{E}\right) = (g^*S_0)FA' + (g^*S_0)NWC' + \big((1+g^*)S_0\big)Rei' \quad (6)}$$

$$\boldsymbol{(1+g^*)S_0(m(1-d)+DW')\left(1+\frac{D}{E}\right) = (g^*S_0)FA' + (g^*S_0)NWC' + \big((1+g^*)S_0\big)Rei'} \quad \textbf{(5)}$$

Where:

g* = sustainable growth rate

If all parameters are known, a sales growth rate that makes the equilibrium possible could be derived.

This is the maximum growth in sales that a firm can sustain without changing any financial policies:

$$\mathbf{g^* = \frac{FO - Rei'}{FA' + NWC' + Rei' - FO}} \quad \textbf{(7)}$$

The sustainable growth rate model could be also presented in a more detailed manner that includes value drivers:

$$\mathbf{g^* = \frac{\left[\left((m_{EBIT} - I')(1-T)(1-d) + DW'\right) \times \left(1 + {}^{D}/_{E}\right) - Rei'\right]}{[FA' + NWC'] - \left[\left((m_{EBIT} - I')(1-T)(1-d) + DW'\right) \times \left(1 + {}^{D}/_{E}\right) - Rei'\right]}} \quad \textbf{(8)}$$

Where:

mEBIT = EBIT (Earnings Before Interest and Taxes) margin,
I' = interest on debt as a percentage of sales, and
T = effective tax rate.

The objective for most companies is to plan and maintain the relationship between the funds available and the funds required in balance in the long term perspective. The presented analytical tool could therefore be used both for the entire company, as well as for a particular strategic business unit.

Whereas the overall equilibrium should be maintained, single business units could be either net suppliers of cash used for growth or net absorbers of cash. Well composed portfolios of such businesses can make company's grow faster than if they were made up of balanced units. As a planning tool, the sustainable growth model could be used to manage certain factors, the ones that are the key policy issues in a unit, while considering the other factors as being fixed by the policy decisions.

Comparing the actual growth rate of sales with the sustainable growth rate forecast ex-post could reveal how the company is managing growth, if there was a space in the market for growth strategies and how these strategies were financed. In business practice, companies seldom focus their efforts on maintaining a financial equilibrium. However, this analysis applied for planning purposes could improve the cooperation between strategic, planning and financial managers to establish growth objectives compatible with financial policies. It is also a useful tool that could help in a strategy formulation, although it only supports the decision process which depends on risk-taking predispositions and individual features of the top management. It is worth noting that a negative sustainable growth rate can indicate that the amount of investment made by a company will not be balanced by available funds.

Application of sustainable growth rate in strategic analysis

The application of this strategic analysis tool has been completed on an example of four leading beer producers, two in Poland and two in the Czech Republic. A purpose of the study was to illustrate the sustainable growth rate analysis for units operating in a mature industry. However, since Polish companies didn't finance their growth by retained earnings, the application of the basic sustainable growth rate model was infeasible. Therefore we found Govindarajan and Shank model more appropriate.

A general overview of the beer market in Poland reveals similar features to the Czech Republic market, although the consumption per capita differed remarkably. In Poland, in 2008, the consumption per capita was 93 liters, while in the Czech Republic, it was 161 liters. A phase of the market in its life cycle was similar, however. Both markets were in their stage of saturation and producers were seeking market niches with different beer flavors. They were also exploring export possibilities, taking Russia as an example.

Another similarity is that both markets are concentrated. In Poland, two leading producers cover over 76 % of the market. In the Czech Republic, there was 67 % respectively. In both countries, the leading companies are owned by multinational corporations. SABMiller plc owns Grupa Kapitałowa Kompania Piwowarska SA, with 43 % of the market share in Poland, and Plzensky Prazdroj a.s. which has 49 % of the market share in the Czech Republic. The second biggest producers are owned by Heineken in Poland (Grupa Żywiec

SA – 33,5 % of market share) and CVC Capital Partners, an investment company in the Czech Republic (Pivovary Staropramen a.s. – 17 % of market share). Heineken holds the third largest Czech Republic producer - Královský Pivovar Krušovice – where the market share is 14 %, as well as other well known beer brands like: Starobrno, Velke Brezno and Krasne Brezno.

The analysis of the sustainable growth rate was conducted on the basis of calculations of parameters in the equation (8). A forecast of the sustainable growth rates in period t1 was completed using data from the period t0, following the comparison withactually achieved sales growth rates. Tables 1 and 2 illustrate results for Polish market leaders, Grupa Kapitałowa Kompania Piwowarska SA and Grupa Kapitałowa Żywiec SA, for the years 2004-2008. Except for the highest market shares, these companies had the highest growth rates of sales in the analyzed period, and their brand portfolios were very popular in Poland. Tables 3 and 4 illustrate results for leading companies that operated in the Czech Republic market, Plzensky Prazdroj a.s. and Pivovary Staropramen a.s., for the years 2004-2007 . Both companies had constant growth rates of sales on similar level. They also held the most popular beer brands in the Czech Republic.

Parameter	2004	2005	2006	2007	2008
DW'	5,6%	5,0%	4,3%	4,1%	4,1%
D/E	70,7%	76,8%	42,1%	32,2%	66,2%
m EBIT	22,91%	20,81%	21,81%	21,19%	20,82%
I'	1,1%	1,2%	0,8%	0,9%	1,1%
T	23,2%	19,2%	18,4%	19,2%	18,3%
d	100,0%	100,0%	100,0%	100,0%	100,0%
Rei'	4,6%	4,0%	3,3%	3,1%	3,1%
FA´	41,2%	43,0%	43,9%	37,0%	37,1%
NWC´	2,4%	4,4%	-2,8%	1,2%	0,5%
g*	13,1%	12,8%	11,3%	7,3%	6,4%
g	8,0%	10,5%	11,6%	15,5%	14,7%

Source: own elaboration

Table 1: Parameters of the sustainable growth rate calculation for Grupa Kapitałowa Kompania Piwowarska SA (Poland) for the years 2004-2008.

Parameter	2004	2005	2006	2007	2008
DW'	5,8%	8,7%	8,2%	7,6%	6,9%
D/E	42,3%	43,2%	76,8%	101,9%	127,0%
m EBIT	10,0%	15,9%	14,3%	16,0%	15,2%
I'	1,0%	1,2%	0,9%	1,0%	1,7%
T	15,9%	20,1%	22,3%	20,3%	20,0%
d	110%	123%	102%	101%	92%
Rei'	4,8%	7,7%	7,2%	6,6%	5,9%
FA´	40,5%	56,9%	48,8%	44,3%	39,8%
NWC´	3,1%	0,3%	-1,9%	-2,4%	0,7%
g*	-22%	6%	2%	17%	26%
G	13%	-22%	11%	11%	8%

Source: own elaboration

Table 2: Parameters of the sustainable growth rate calculation for Grupa Kapitałowa Żywiec SA (Poland) for the years 2004-2008.

Parameter	2004	2005	2006	2007
DW'	10,32%	9,93%	10,86%	8,94%
D/E	117,22%	97,11%	70,17%	64,84%
m EBIT	28,95%	31,83%	34,12%	32,37%
I'	1,83%	1,43%	0,39%	0,42%
T	33,28%	28,42%	24,19%	24,55%
D	87,13%	69,06%	57,50%	57,73%

Rei'	9,32%	8,93%	9,86%	7,94%
FA´	100,32%	98,54%	97,65%	99,79%
NWC´	0,02%	2,79%	-0,83%	-10,93%
g*	4,45%	22,09%	30,88%	38,91%
G	21,41%	4,11%	3,53%	6,41%

Source: own elaboration

Table 3: Parameters of the sustainable growth rate calculation for Plzensky Prazdroj a.s. (the Czech Republic) for the years 2004-2007.

Parameter	2004	2005	2006	2007
DW'	12,01%	12,79%	11,15%	11,70%
D/E	66,35%	59,77%	28,16%	28,60%
m EBIT	0,60%	10,15%	9,67%	20,42%
I'	0,00%	0,00%	0,00%	0,00%
T	0,00%	29,66%	30,69%	10,29%
D	0,00%	0,00%	0,00%	0,00%
Rei'	11,01%	11,79%	10,15%	10,70%
FA´	60,48%	59,45%	62,12%	62,41%
NWC´	32,34%	9,29%	9,45%	18,51%
g*	22,95%	12,03%	41,19%	21,63%
G	8,21%	2,24%	3,20%	6,21%

Source: own elaboration

Table 4: Parameters of the sustainable growth rate calculation for Pivovary Staropramen a.s. (the Czech Republic) for the years 2004-2007.

Analysis of growth and investment opportunities

In Polish market, there is still a room for growth because a sales volume is increasing constantly, and acquisition activities can be observed, whereas in the Czech Republic market, the revenues on sales of beer products grew at a level similar to the inflation rate. SABMiller realizes the strategy of market leaders in both countries. The top brands of Kompania Piwowarska will not be able to earn any more market share between other brands because the market is very close to its saturation point, especially considering lager. Therefore, one of the activities of Kompania Piwowarska, aiming at gaining a higher market share, is promoting small regional brands of newly acquired microbreweries to become all-Poland brands.

This type of strategy typically requires financing, but in the case of Kompania Piwowarska, it is conducted by an increasing asset turnover. A similar situation can be observed in Grupa Żywiec where the asset turnover was increasing each year. Kompania Piwowarska had the highest actual growth rate and was the only company exceeding its sustainable growth rate.

In the Czech Republic, the asset turnover in both companies was maintained at the same level. Moreover, the effectiveness of the assets was much lower than in Polish companies. This may result from a different beer production technology. If not, it should result in an asset restructuring. The profit margin was much higher in the Czech Republic than in Poland, differing significantly between both companies.

Analysis of financing activities

Czech Republic leaders financed their operations internally, a support of debt was especially low in Staropramen. The dividend in Staropramen wasn't paid for the entire analyzed period, where in Plzensky Prazdroj it was about 60 % throughout the period. A payout ratio was the main parameter influencing levels of sustainable growth rates which were much higher than the actual growth rates. This reveals that the financing strategy was conservative, even though the market was mature and there were not many attractive investment possibilities. At the same time, in Poland, almost 100 % of the profits were paid out as dividends to capital owners in both the companies. Kompania Piwowarska used a debt to a moderate extent, although the leverage doubled in the last year. Grupa Żywiec had a much higher and constantly growing debt-to-equity ratio.

Looking at the companies from a perspective of a cash sufficiency and the equilibrium, the situation in both countries seems to be unstable. It was expected that in the mature market, companies

should aim at maintaining a balance between financing requirements and funds available for financing. Except for Kompania Piwowarska, all other analyzed companies had cash surpluses that were not reinvested in local activities, but rather spent by the corporations globally.

Implementation into strategic analysis

The sustainable growth model served to highlight the interdependency between sales growth objectives and established financial policies. Therefore, as a strategic analysis tool, it illustrated cash surpluses and cash requirements, as well as the interrelationships between parameters that influenced the results. Although in three of four cases a higher growth rate could be achieved according to the sustainable growth rate model, the real growth rate was much lower. It resulted in cash surpluses. It is also important to note that there was no room for a high growth in the market. In case of both the countries, the market was either oversaturated, or close to a saturation point. The companies were trying to look for market niches and export possibilities, but were not fully utilizing their internal financing possibilities. A question then arises as to why those companies are not aimed at achieving the cash sufficiency equilibrium.

Aggressive financial strategies in Poland may have resulted from a good situation in the capital market in the first half of 2008. It seems that the companies didn't have problems with obtaining finances then. Therefore, there was no need to adjust the sustainable growth rates to expected levels of actual growth rates of sales revenues.

A data analysis of four beer producers shows also that a general financial policy outline depends on a global financial policy of corporations that own local breweries, with certain adjustments to local market requirements and conditions. This was directly observed during the operation interviews in SABMiller in Poland and in the Czech Republic.

As a general conclusion it can be stated that leading Polish beer producers follow more aggressive financing strategies than Czech beer producers. Companies operating in Poland used leverage to bigger extent than producers in the Czech Republic. There was also a higher effectiveness among Polish companies resulting either from more traditional beer production cycles or restructuring needs in the Czech Republic. Incorporating sustainable growth rate into the strategic analysis and in the decision making process of a new strategy implementation may enable companies to increase their cash sufficiency and the creation of added value.

Adding three new dimensions to the sustainable growth rate analysis would be necessary. Firstly, one should analyze how to apply the sustainable growth concept to minor companies which operate in a mature market. In this case, calculations based on aggregated financial parameters would not be possible, therefore the sustainable growth model could lose its allure. Secondly, in some cases the corporate growth could be achieved only via acquisition and there is a need to know how acquisitions affect the sustainable growth rates. Thirdly, from a global corporate perspective, a complete analysis of all strategic business units (SBUs) of sustainable growth rates and their capital requirements would build an interesting case of "internal" capital market where each SBU competes for a capital that could be provided from corporate global activities.

Corresponding author:
Karolina Daszyńska-Żygadło
Department of Financial Management, Wrocław University of Economics
Komandorska 118/120, 53-345 Wrocław, Poland
E-mail: karolina.zygadlo@ue.wroc.pl

References

[1] Babcock, G.C.: The concept of sustainable growth, Financial Analysts Journal, May-June 1970, pp. 108-114.

[2] Duraj J.: O potrzebie pełniejszego spojrzenia na metodę procentu od sprzedaży, [in:] Zarządzanie finansami: finansowanie przedsiębiorstw w UE, D. Zarzecki (red.), Wyd. Uniwersytetu Szczecińskiego, Szczecin 2004.

[3] Fruhan, W.E., Jr.: Financial Strategy, R.D. Irwin, Homewood, Illinois, 1979

[4] Govindarajan V., Shank J. Cash Sufficiency: The Missing Link in Strategic Planning, „Corporate Accounting", Winter 1984.

[5] Higgins R. C. Analysis for Financial Management, McGraw-Hill, Boston, 2003.

[6] Higgins R. C. How Much Growth Can Firm Afford?, Financial Management, Fall 1977.

[7] Horne J. van: Financial Management and Policy, Engle Wood Cliffs: Prentice Hall International 1989.

[8] Pluta W.: Planowanie finansowe w przedsiębiorstwie, PWE, 2003.

[9] Robinson S.J.Q.: What growth rate can you achieve?, Long Range Planning, August 1979, pp. 7-12.

[10] Rowe H., Mason R., Dickel K.: Strategic Management and Business Policy, in: A Methodological Approach, Massachusetts, 1982

[11] Rutkowski A.: Planowanie zrównoważonego tempa wzrostu firmy, [in:] Strategie wzrostu wartości przedsiębiorstwa. Teoria i praktyka gospodarcza, E.Urbańczyk (red.), Zeszyty Naukowe Uniwersytetu Szczecińskiego nr 378, Wydawnictwo Kreos, Szczecin 2004.

[12] Siedlecki R., Słoński T.: Prognozowanie stopy wzrostu przedsiębiorstwa na podstawie danych finansowych, [in:] Ekonometria, Zeszyty Naukowe Akademii Ekonomicznej we Wrocławiu nr 915, Wrocław 2001.

[13] Varadarajan P.: The Sustainable Growth Model: A Tool for Evaluating the Financial Feasibility of Market Share Strategies, Strategic Management Journal, Vol. 4, no 4 (Oct.-Dec., 1983), pp. 353-367.