



#### Available online at www.sciencedirect.com

### **ScienceDirect**

Procedia

Economics and Finance

www.elsevier.com/locate/procedia

Procedia Economics and Finance 23 (2015) 1492 - 1498

## 2nd GLOBAL CONFERENCE on BUSINESS, ECONOMICS, MANAGEMENT and TOURISM, 30-31 October 2014, Prague, Czech Republic

## The opportunity cost of equity capital

Jana Dzuričková<sup>a</sup>, Radka Fabinyová<sup>a</sup>, Bohuslava Mihalčová<sup>a</sup>\*

<sup>a</sup>University of Economics in Bratislava, Faculty of Business Economics in Košice, Tajovského 13, 041 30 Košice, Slovakia

#### Abstract

This paper is focused on the calculation of cost of equity with using the CAPM model and Build-up model. The main aim of this calculation was to discover whether traditional measurements of business performance are better than selected modern measurements or not. For the calculation we used a sample of 31 engineering companies situated in the Slovak market. Based on the research results we propose a methodology that could be suitable for the more efficient calculation of costs for examined industry.

© 2015 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and/peer-review under responsibility of Academic World Research and Education Center *Keywords:* Build-up model, CAPM model, economic value added, cost of equity capital, engineering industry;

#### 1. Introduction

The growing competition among companies at the market and the strong connectivity among individual economies can be considered as most significant effects of globalization. The negative consequences of these effects are showed especially with arrival of the financial and economic crisis in 2008, which caused deeper financial or existential problems in some companies. According to these problems, there arise up an increasing pressure on examination of business performance. So, we can ask the question how we could evaluate companies and their performance as efficiently as possible under these conditions.

There are several traditional (e.g. indicators of liquidity, activity, profitability, etc.) or modern (e.g. EVA, MVA, NPV, CFROI, etc.) indicators of business performance, which bring a more dynamic and realistic image about company but not only about its performance but also about competitive position on the market. Thanks to the simplicity of calculation, not only Slovak companies tend to use traditional indicators for measure of business

2212-5671 © 2015 Published by Elsevier B.V. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

Selection and/ peer-review under responsibility of Academic World Research and Education Center

<sup>\*</sup> Bohuslava Mihalčová. Tel.: +421-905-807-851 E-mail address: mihlacova.b@seznam.cz

performance. The main deficiency of traditional indicators may be considered disregard of risk, the impact of inflation as well as the time value of money which leads to the question about accuracy of the calculations and their explanatory value of business performance.

Due to above facts, we decided to explore the possibility of using selected modern indicators for measure of business performance. In business practice, the most widely used model for measuring a business performance is model EVA (Economic Value Added). The problem within EVA may be the calculation of opportunity cost of capital, which is one of the most examined components of business costs. Therefore, within our research we focused just on the indicator opportunity cost of capital and we examine the main differences between the calculation with CAPM model and Build-up model.

The first part of this paper is focused on the theoretical definition of selected models with emphasis on their computational feature that can we discover significant differences between these two models. In the next part, we introduce the examined sample as well as the criteria that we set within selection process. Due to the large volume of data, we present in section Research sample and results the example of calculation of opportunity cost of capital with using CAPM model and Buil-up model (the calculation was performed on randomly selected company from our sample). In the final part, we present our obtained concludes.

#### 2. Evaluation of business performance

Company and its transformation processes are influenced by a number of macroeconomics and microeconomics factors, which impacts reflected in the results of business. This raises the question, how we could evaluate the company which is undertaking these factors as well as how we could measure its performance. The concept of business performance is perceived by different views as the ability of company to achieve the desired effects or outcomes in measurable units (Lesáková, 2004) or as the rate of achievement by individuals, groups, organizations or processes (European Foundation for Quality management). When we examine a business performance it is necessary to monitor not only the financial components, but also non-financial components of companies such as the work efficiency of employees, their motivation, etc.<sup>†</sup>

In terms of comparison the company with competitors or interest of investor, it is important not only to monitor business performance, but also its measurement. Based on the measurement we are able to evaluate company in terms of its performance. We can use a several indicators of business evaluation e.g. qualitative or quantitative indicators, traditional or modern indicators, etc.

In our research, which is focused on the evaluation of business performance within the engineering industry in Slovakia, we decided to use a most used model of calculation of business performance – EVA. However, when we used this model we discovered a problem with variable approach how to calculate the opportunity cost of equity capital. In the next part of this section, we introduce a two models that we used for calculation.

#### 2.1. Economic value added (EVA)

In 1991, the Stern Stewart & Co. introduced a model Economic value added – EVA. This model represents economic (extraordinary) profit that the company created after the payment of all costs including cost of capital (Wagner, 2009). The basic concept of calculating of EVA is specified by the general form of the calculation of economic profit. Its value is the difference between the net profit from the main performed activity and the cost of capital, which are expressed as the product of the assets in the main performed activity and the weighted average cost (Wagner, 2009).

There exist a lot of formulas of EVA calculation, but based on the fact that our research is focused on the data from accounting we use in this paper next formula of EVA:

$$EVA = (ROE - r_e) * E$$
Where:

ROE – Return on equity,

<sup>†</sup> In this paper, we examine a business performance in terms of financial components. Our next research is focused on examination of non-financial components. We bring the results from this research in our next paper.

# دريافت فورى ب

# ISIArticles مرجع مقالات تخصصی ایران

- ✔ امكان دانلود نسخه تمام متن مقالات انگليسي
  - ✓ امكان دانلود نسخه ترجمه شده مقالات
    - ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
  - ✓ امكان دانلود رايگان ۲ صفحه اول هر مقاله
  - ✔ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
    - ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات