

IMPLEMENTATION OF EVA INDICATOR IN VALUE BASED REMUNERATION SYSTEM IN SMALL AND MEDIUM-SIZED ENTERPRISES

M. Jakubcová, A. Fedorová

Received: February 20, 2012

Abstract

JAKUBCOVÁ, M., FEDOROVÁ, A.: *Implementation of EVA indicator in value based remuneration system in small and medium-sized enterprises*. Acta univ. agric. et silvic. Mendel. Brun., 2012, LX, No. 4, pp. 141–154

A value based remuneration system can be ranked among the modern remuneration systems. The value based remuneration systems focus their attention on the interconnection of the personal objectives of employees with the objectives of owners. Such an aim can be accomplished by meticulously selected evaluation quantities. A presented article concentrates on the economic value added quantity. This topic was a subject of an undertaken research within the framework of the Internal Grant Agency of the Faculty of Business and Management, the partial objective of which was to acquire the information on the value based remuneration systems applied in the small and medium-sized enterprises situated in the South-Moravia region. Selected research results are presented in the submitted article. The investigation research outputs enriched and completed a literary background research and together with the secondary research results facilitated the formulation of pre-requisites appropriate for the value based remuneration system application in the remuneration schemes of the small and medium-sized enterprises. On the basis of the formulation of these pre-requisites the article describes the EVA indicator implementation progress steps in the value based remuneration system and, subsequently, an employee value based remuneration model with the indicator of the economic value added is introduced.

Economic Value Added, remuneration, value based systems of remuneration, bonus, company goal

Riegler (2002) considers the value based remuneration systems as the modern remuneration systems, the aim of which is to guarantee the company employees more money funds by setting of higher and higher value for the owners. The value formation for the owners can be achieved in case of the concordance between the objectives of owners and company employees. According to the experts Kaplan and Norton (2000), Remeš (2004), Young (2001), Wagner (2003) etc., a crucial pre-requisite for the achieving of such consensus is the profit sharing in harmony with the share of owners and employees in the reaching of the strategic objectives. As a metric for the meeting of the company strategic objectives and creation of the values can be considered the indicator of the economic value added ("EVA"). Nevertheless, according to Remeš (2008), the EVA indicator reported its low application in the field

of the financial management in recent years. The results of research, carried out by Remeš and Kolařík in the year 2006 with 65 interviewed respondents, indicated 12% rate of the EVA indicator application in the company management. As the EVA indicator must be applied into the financial management prior to the implementation of the EVA into the value based systems, mentioned results underline insufficient use of the EVA indicator also in the field of the value based remuneration systems. Such a conclusion was confirmed, among others, by the obtained results of the investigation questionnaire pursued in the Czech Republic in the South-Moravia region in the year 2007 in 475 addressed companies. It was found out that out of 60 companies, returning the questionnaires, only 11.86% of companies applied the value based remuneration system as specified below. An intensity of the value based

remuneration system application (compared to the other remuneration system approaches) corresponds with 4.79% (Staňková, 2007). As Remeš (2008) quotes, the value based systems are being frequently rejected especially because of the fear of radical modifications of the classical accounting to the economic model, which becomes the base for the calculation of the value indicators.

The value indicators play an important role also in the field of an employee motivation. They represent an effective stimulation tool, the task of which is to harmonize personal measures, controlling the activities of employees, with the value measures in such a way to encourage the motivation of employees with the aim to improve their efficiency and achieve the objectives as specified by the company (Riegler 2002, Staňková 2009, Tomšík 2005). Riegler (2002) and Staňková (2007) consider paid premiums, bonuses or shares and share options as the most frequently applied remuneration methods in the value based remuneration systems. Mentioned remuneration methods are oriented to the interests of the owner with a long-term effect.

Nevertheless, the authors point out that not every metric is advisable for the value based remuneration system. Should the value based remuneration system become an appropriate motivation tool, a considerable attention should be devoted to the value indicator selection. The indicator must be necessarily derived from the company value. An important condition for the company value increasing is the necessity to connect the indicator with the strategy applied to the whole company and other partial company strategies, namely the motivation strategy. Mutual links and interconnection of the value indicator and all strategies both in the horizontal and vertical company level should result in the accomplishment of goals, defined by the company. E.g., a pointed connection of the value indicator with the motivation strategy should result in the improvement of the motivation effect on employees, thus the behavior of employees will be deliberately influenced, mainly by the achieved level of the evaluating quantity. Out of a.m. results that the employees will endeavor to reach the highest possible value. As evident, the link between the work evaluation system and the remuneration system is very strong.

As mentioned above, this article directs its attention to the value based remuneration as an important and effective tool of the value management, a tool, that is rather new and not explored comprehensively in the conditions of the Czech Republic, especially with the impact on the field of employee motivation in the company practice in foreground with EVA indicator. The objective of this article is to describe the process of the EVA indicator introduction into the value based remuneration system and to design the employee remuneration model on the basis of the EVA indicator in the environment of a small and medium-sized enterprises.

METHODS

In order to fulfill the objective, which is defined in the text above, the methods based on the logical thinking, i.e. the analysis and synthesis, induction and deduction, and so-called empirical methods are applied in the submitted article.

A major attention is focused on the value based remuneration systems used in the small and medium-sized enterprises situated in the South-Moravia region. The EVA indicator application in the companies, using the value based remuneration systems, is studied.

The empirical methods, described in the article, are supported by the mathematical statistics, endorsed by the probability theory. The task of the mathematical statistics is to analyze the data gathered by the statistical file investigation, and, subsequently, to apply the analysis conclusions to the whole basic file, i.e. so-called statistical induction (Hendel, 2004).

The tests of mutual dependency of selected variables by means of a chi-squared test are completed in the article. The testing works with the factually measured frequencies of the combinations of the values of the individual variables, observed in each unit of the statistical file, and with theoretical frequencies. The test applies the Pearson's probability distribution. The significance level 5% was used for the testing. A test null hypothesis then anticipates no statistically important dependency among monitored variables. The results of the implemented tests were generated with the use of the software XLStatistics.

Furthermore, the hypotheses on parameter p of binomial distribution are examined in the article based on the factually measured frequencies. The testing of an unknown proportion p anticipates its equality to a certain factual value p_0 . The null hypothesis expresses the equality between the parameter p and parameter p_0 and the alternative hypothesis then $p = p_0$ and the alternative hypothesis then rejects the null hypothesis, i.e. can be expressed as $p \neq p_0$, or can be formulated as a sharp inequality, either $p > p_0$ or $p < p_0$. The test of hypothesis on parameter p of binomial distribution anticipates a sufficiently large sampling. The test criterion value is considered for the large universe $n > 30$. The null hypothesis acceptance interval is identified as $I_0 = \langle -u_{1-\alpha/2}; u_{1-\alpha/2} \rangle$, where $u_{1-\alpha/2}$ is $(1 - \alpha/2)$ - a quantile of normal distribution, with $\alpha = 0.05$. The Student's t-distribution is applied for the testing of smaller samples. As the field for the null hypothesis acceptance is considered (with an alternative hypothesis $p \neq p_0$) the value of the null hypothesis expressed by the interval $\langle -t_{1-\alpha/2}; t_{1-\alpha/2} \rangle$, with the alternative hypothesis $p > p_0$ the value of the null hypothesis expressed by the interval $\langle -\infty; t_{1-\alpha} \rangle$ and with the alternative hypothesis $p < p_0$ the value of the null hypothesis oscillating in the interval $\langle -t_{1-\alpha}; \infty \rangle$.

Presentation of results of performed own research in the field of employee remuneration in small and medium-sized enterprises of the south-moravia region

The remuneration belongs to an important activity of the human resource management, supporting the labor force forming, employee development, social relations, corporate culture development and influencing the communication among employers, employees and trade unions. An applied remuneration value plays an important role in the communication, affecting a desirable behavior of the employees. Therefore, the remuneration systems should be transparent, fair and simple and should take into consideration executed work and should support both short-term and long-term performance (Armstrong, 2002; Remeš, 2008).

An effective and efficient remuneration system should be motivating and should maintain a permanent interest of the existing valuable employees in their job position and less effective employees should be motivated to show better work outcomes. The system should be simple, communicative in all work levels, fair and objective (Vávrová, 2004).

Based on this reason variously oriented value based remuneration systems were established during the course of the time. The selection and development of the remuneration system is, however, a very complicated process, which must be harmonized with the company strategic objective. Its creation is influenced by a broad spectrum of factors, which must be identified, monitored and their impact must be taken into account (Čadil, 2006).

In order to acquire information on the factors of the income affecting the company remuneration systems, on applied remuneration systems, provided employee benefits, frequencies of salary changes and their percentage amount, developmental trends and their influence over the remuneration system, taking into account the needs of employees, mutual interconnection between the remuneration systems and complete corporate strategy and the importance of performance indicators in the formation of remuneration systems a research study¹ was carried out (in the period from June to November 2007) by means of a questionnaire investigation in the

segment of the small and medium-sized enterprises operating in the South-Moravia region (hereinafter also in the text referred to as "Research 2007"). The questionnaire addressed totally 475 companies and the plan was to address people responsible for the company human resource management. A questionnaire rate of return amounted to 12.63%.

The results of research indicated that in the questionnaire research participated according to the:

- legal form 46 companies with limited liability, 4 joint stock companies and 6 private entrepreneurs doing business in compliance with the trade law,
- size of the company 10 micro, 43 small and 7 medium-sized enterprises (see Tab. I),
- classification of economical activities with the highest rate of 36.67% of companies involved in the business activity. Tab. II shows the representation of other companies according to the field of activity.

Collected data identifying the companies became the cornerstone of the statistical hypothesis testing of the mutual dependence among the company size and the value based remuneration system application (Staňková, 2007). The null hypothesis claims the mutual independence among the company size and value based remuneration system application. From the chi-square test summarized results, presented in the Tab. III, we can say that the company size does not mutually depend on the value based remuneration systems.

The null hypothesis validity was confirmed by the follow-up testing – i.e. the industry, in which the company is active, does not correlate with the value based remuneration system application, with 95% probability. The null hypothesis verification is proved by the testing criterion value, being lower than a critical value, displayed in the Tab. IV (Staňková, 2010).

The results of Research 2007 further indicated that a main criterion, influencing the salary settlement, was the acquired knowledge and skills of the individual employees, in 85% companies.

A program of company efficiency management, applied by 75% respondents, can be considered as the most frequently applied remuneration system. Moreover, ca. 50.85% of companies focused on the

I: Classification of companies according to their size

Company size	Number of companies	Share of companies
Micro-company – 1 to 9 employees	10	16.66%
Small company – 10 to 49 employees	43	71.67%
Medium-sized company – 50 to 249 employees	7	11.67%

Source: Staňková, 2010, p. 475

1 A research study was pursued within the Internal Grant Agency of the Faculty of Business and Management under the title "An Application of Company Value Management in Human Resources".

II: *Classification of companies according to the field of activity according to the classification of economic activities*

Prevailing field of activity according to the classification of economic activities	Share of companies
Agriculture, forestry and fishing	1.67%
Processing industry	18.33%
Construction	10.00%
Trade; repair of motor vehicles and products for personal need and prevailingly for household	20.00%
Accommodation and food service activities	6.67%
Transportation, storage and post, courier activities, telecommunications and other communications	8.33%
Financial activities	1.67%
Activities in real estates and rental; business activities	36.67%
Public administration and defense; compulsory social security	1.67%
Education	3.33%
Human health and social work activities; veterinary activity	5.00%
Other public, social and personal services	8.33%

Source: Staňková, 2007

III: *Summary results of the hypothesis chi-square test – mutual dependence among company size and value based remuneration system application*

Analysis of r x c tables; (Pearson) Chi-square Test; (For independence of V and H)	
H ₀ : Variables are independent (no interaction between variables)	
H ₁ : Variables are dependent (interaction between variables)	
Chi-square	3.261903269
DF	2
p-value =	5.99

Source: Staňková, 2010, p. 479

IV: *Summary results of the chi-square hypothesis on mutual correlation between the industry and value based remuneration system application*

Analysis of r x c tables; (Pearson) Chi-square Test; (For independence of V and H)	
H ₀ : Variables are independent (no interaction between variables)	
H ₁ : Variables are dependent (interaction between variables)	
Chi-square	13.81452140
DF	11
p-value =	19.7

Source: Staňková, 2010, p. 479

so-called internal audits. 11.86% of the respondents applied the value based remuneration system.

On the basis of randomly conducted personal interview in these 7 companies the fact was confirmed that the value based remuneration system, constituted on the economic value added indicator, was applied in 1 company. In compliance with these collected frequencies the test of the null hypothesis H was carried-out: $p = p_0$ and anticipated, with the significance level 0.05, the establishment of the conditions for the value based remuneration system application in 14% of companies. The null hypothesis was formulated as H: $p = 0.14$, alternative hypothesis: $p \neq 0.14$ and acceptance interval: $I_0 = I_0 = \langle -u_{0.975}; u_{0.975} \rangle$, i.e. $I_0 = \langle -1.96; 1.96 \rangle$. The value of test criterion was calculated in the sum of -0.52 . This value belongs into the interval of the null hypothesis I_0 acceptance; therefore, the null hypothesis is not rejected. The assumption of 14%

companies with the established conditions for the value based remuneration system was confirmed. Identically, the testing proved (significance level 0.05) that the conditions for the value based remuneration system, based on the economic value added indicator, can be established in 50% of the small and medium-sized enterprises. The value of test statistics in the level -1.89 , belonging into the field of the null hypothesis acceptance expressed by the interval $I_0 = \langle -2.447; 2.447 \rangle$, proves it. The null hypothesis H: $p = p_0$ anticipated (significance level 0.05) the possibility of the establishment of the conditions for the value based remuneration system based on the economic value added indicator for 50% of the small and medium-sized enterprises. The null hypothesis expressed $p = 0.50$ and alternative hypothesis $p \neq 0.50$. The acceptance interval was expressed as $I_0 = \langle -u_{0.975}; u_{0.975} \rangle$, i.e. $I_0 = \langle -2.447; 2.447 \rangle$. The Student's *t*-distribution quantile was

applied as it represented a small universe. The null hypothesis is accepted.

Besides above mentioned facts the Research 2007 further reported that approximately 76.67% companies most usually contributed to the catering together with the employer-paid development and education programs, and 73.33% of companies professional background. Only 13.79% of companies confirmed to take into account the interests and needs of their employees in their remuneration systems. 52.73% of companies change the salaries of their employees once a year, 45.61% of companies without any plan, 33.33% of companies biannually and 22.64% of companies quarterly. In the moment of the salary change 28.33% of companies increase the salaries of their employees approximately for 4 to 6% and 15% of companies in average from 7 to 9%. The remuneration system establishment is influenced (as reported 89.83% of companies) by the developing knowledge and skills of employees and according to 72.88% of companies by the increasing level of the performance bonuses paid especially to the managers. As negative result can be considered the fact that only 44.83% of companies link their remuneration system to the company strategy. 17.89% of companies answered a questionnaire open ended question, focusing on the most frequently used metrics for the remuneration of their employees, as applying the indicators derived from the achieved knowledge, experience, skill, abilities for the remuneration and 14.74% of companies the indicators based on the performance and efficiency as well as the results of quality of work and conscientious work.

Preconditions of EVA indicator implementation into value based remuneration system

Riegler (2002), Staňková (2009), Remeš (2008) and Vacík (2004a, 2004b) assert that the training of managers as well as employees is essential prior to the introduction of the motivation system based on the EVA indicator. Primarily, the managers must master the value management principles, later also employees, whom the remuneration on the base of the EVA relates to.

A new system, using the EVA, must shape the identical thinking of all groups interested in the EVA indicator, coming out from the feeling of the consigned assets ownership. Such a transfer to the system of thinking of managers and other company employees and owners focuses on the company value improvement as its primary objective. The tasks of managers and other company employees are known from the company strategic management from the past. These tasks must concentrate on a newly outlined company objective, i.e. the introduction of the EVA indicator value into the company financial management, and the unification of the relevant differences of views of managers and other company employees and partners on the EVA indicator and from it derived partial indicators.

An adequate communication of defined company objective and specified strategy is essential for the EVA indicator implementation into the system of management and remuneration. This can be guaranteed e.g. by means of the information systems, within the framework of which both company employees and owners could track the results of monitored indicators hand in hand with the topicality of necessary information in decision-making processes.

As the company will pass to the system of management and remuneration based on the EVA indicator, i.e. will convert to the value management and the interest of employees, the thinking over the organizational changes, guaranteeing the formation of such conditions resulting in the factual influencing of selected indicator of its components, will be necessary. The organizational changes will concentrate on the transition from the company geographical structure to the technological and product units as well as on the transfer to well-arranged cost structure with the possibility of the evaluation of results of both groups and individual employees (Remeš, 2008).

Such changes will highlight the necessity of the company managerial process modifications. According to the experience of companies introducing the value based motivation program (e.g. GiTy, a.s.), certain principles must be adhered to, such as not to complicate too much the modifications of values of current accounting, to pay more attention rather to the selection of decisive factors influencing the EVA and which, at the same time, the employees can influence, and, last but not least, the company information system in its program equipment must be adopted to the new system.

Basic progress steps of EVA indicator implementation into value based remuneration system

The EVA indicator was selected for the value based oriented remuneration system establishment based on several reasons. It is an indicator which can be adequately connected with the company objective. Therefore, a situation could not occur that in spite of good working results of the staff the company objective is not accomplished, or is even deteriorated. Such situations happen especially if the company target indicator itself can not be simply and clearly measured. The EVA indicator is measurable. Pavelková (2005) states that the EVA indicator can be applied in all levels of the management through the company and its individual generators of the EVA formation can be considered equal to the efficiency movers. Among others, the EVA indicator takes into account the risk factor, and can be used for the employee motivation through the remuneration system. The EVA indicator can be calculated according to the basic formula (1):

$$EVA = NOPAT - (C \times WACC). \quad (1)$$

The quantity *NOPAT* represents *Net Operating Profit After Taxes*, the quantity *C* represents *Capital*, which is an overall capital volume bound in the assets, utilized for the main business activity, and the quantity *WACC* represents *Weighted Average Cost of Capital*.

Provided that the value of indicator is $EVA > 0$, it means that the capital return is higher than its price; the company forms the value for its owners. Provided that the indicator value amounts to zero, the revenue covered only the costs linked with its formation; provided that $EVA < 0$, the company generated the revenue lower than costs, thus "destroys" the value for its owner.

Damodaran (2006), Pantea (2008), Zalai (2007), Dluhošová (2006), and others are involved in the EVA indicator calculation. It is an internally defined company performance indicator, according to the microeconomic theory based on the category of economic profit. The concept EVA dates back to the early 1990s in the USA, and was developed by the advisory company Stern Stewart & Co (Pettit, 2000).

In order to be able to apply the EVA indicator into the value based remuneration systems, the indicator must be used, as stated above, in the company management system. An essential prerequisite for the value based remuneration system establishment on the grounds of EVA is, primarily, to take into account vision, mission and company strategy in its definition. The EVA indicator must link the measurement and company performance management with the remuneration system of employees and support the increasing of the company performance with its development. The remuneration system, with the EVA indicator at the head, should strengthen the faith in its application. It means to overcome the fears of modern approaches and radical modifications prior to the indicator value calculation itself, should connect the interests of the company owners with the interests of company employees and, last but not least, should come out from net accounting data, which must be transformed into the managerial informational system (Staříková, 2009 and Vacík, 2004b).

The EVA indicator application into the value based remuneration system is implemented in the following two progress steps.

● **Progress step No. 1 – introduction of the EVA indicator to the management system** means:

1. **Amendment of standard accounting data to managerial data**

– according to Maříková and Mařík (2001) more than 160 corrections of the income from operations, forming the base for the quantity *NOPAT* calculation, can be made. To modify its standard accounting data to the managerial data each company must follow its business activity and data reported in the financial reporting. The objective of such modifications – according to the authors and the couple of Mařík (2001) – is not only

to support the decision resulting in the company value increase, but also to eliminate distortion caused by the legal accounting procedures, to depict factual structure of financing by the modification of the item "not identified" in the balance sheet and, last but not least, to identify operating assets and with them linked costs and revenues. Stern and Deimler (2006) say that the modifications, which the companies implement in the accounting data, can be classified by the operative, financing, tax and ownership fields.

The company income from operations must be modified with all non-operating costs and revenues in the operative field, i.e. those which in reality do not serve for the guaranteeing of the main economic activity. Identically, the company property, shown in the balance sheet but not used for the business activity, must be adjusted.

In the field of financing the precise definition of sources used for the business activity financing must be formulated. It means that the value of sources reported in the balance sheet must be completed with all sources used for the financing.

The tax field reflects the changes in the elimination of the external financing tax effects based on the fact that the external financing should be taken into consideration only in the capital costs. These are mainly the tax distortion elimination from the leasing installments and other tax favorable forms of financing.

The accounting data modifications in the items of the equity capital are influenced by the changes of assets in the balance sheet. These are mainly modifications in the company intangible assets, such as research and development expenses, marketing research, gained goodwill, etc., which are not considered as costs, but investment, gradually amortized in the form of depreciation. Such modifications will relatively stabilize *NOPAT* as the indicator will not be burdened by the nonrecurring costs. The modifications will influence the sum of reported assets in the balance sheet. Such assets must be valued with regard to the market prices, and the equity capital value will be modified identically.

Maříková and Mařík (2001) recommend 5 to 10 key modifications to be carried-out in the practice. As the most frequent modifications we can consider:

- improvement of the operating results of the activity with the interested paid, including the implicit interests included in the leasing installments,
- increasing of the net operating assets with the asset value financed by the financial leasing,
- decreasing of the net operating assets with the financial investments, not linked with the main business activity,
- decreasing of the net operative assets with the unfinished investments, not used for the formation of current results at the moment,
- elimination of random items of non-recurring feature, such as costs and yields linked with the sale of long-term tangible and intangible assets,

or e.g. extraordinary depreciation of the property from the income from operations,

- adjustment of the income from operations with any increase or decrease of adjusting items for stocks and claims,
- decreasing of the income from operations with the yields from assets not used for the operation.

2. Identification of costs for capital

– specified by an accumulated value of the individual costs for the capital provision. Under the term “individual costs for the capital” are considered costs for foreign funds (r_d) and equity capital (r_e). The costs for foreign funds represent an interest paid to the creditors for its providing. A tax rate identifies the factual sum of the costs for the foreign funds. This is based on the fact that the paid interest represents a tax recognized item, decreasing the tax base. Based on this reason the cost of foreign interested funds is the interest decreased with the interest tax shield.

The equity capital costs are specified by the costs of preference shares, costs of ordinary shares and costs of retained profit. To specify the preference share costs we can follow the model of the dividend capitalization of the preference share market price. The ordinary share costs can be deduced from the dividend model of the ordinary share market price, or the capital asset pricing model (CAPM) can be used for their identification and the costs of the retained profit can represent (on the basis of an alternative theory of costs) the price of the equity capital adjusted with the emission costs (Head, 2008 and Mařík *et al.*, 2007).

Based on the fact that the company accumulates the capital from various sources and maintains the capital in various forms, the company total capital costs are defined by the weight arithmetic average of costs of the individual costs upon the capital acquisition and their share to the total capital (C) according to the formula (2) (Kislingerová, 2001):

$$WACC = [r_d * (D/C)] + [r_e * (E/C)]. \quad (2)$$

The quantity D expresses the foreign fund volume and the quantity E the volume of equity capital. Rehman (2010) is involved in the WACC calculation in his article.

3. Periods for the EVA indicator monitoring

– for the purposes of the value based remuneration systems the authors recommend calculating of the EVA indicator once in three months. The recommendation comes out from the results of Research 2007 and from the conclusions of Janda (2004). An annual calculation and evaluation of the metrics for the specification of the employee bonus represent too long period of time to apply necessary measures resulting in the better development of the employees. This negatively influences the development of motivation of the employees to reach the objectives specified by the company (Staňková, 2007; Janda, 2004).

Provided that the EVA is calculated in time intervals shorter than 1 year, according to Remeš (2008) the following steps can be taken:

- quantity NOPAT is quantified similarly to the calculation of the annual indicator with the difference that it will be calculated from yields and costs related only to the particular period with taking the taxes in account,
- quantity WACC can be considered – for a simplification – in the sum of costs for the capital specified in the beginning of the accounting period multiplied by the share of the number of days of monitored period with the number of days of the accounting period,
- from simplified point of view the quantity C can be expressed again as the asset value expressed in the beginning of the accounting period.

4. Definition of the fields of the EVA indicator calculation

– the concept EVA can be also applied to the levels of the partial parts of the company. The EVA calculation derives from the number of the organizational units, company organizational structure, character of company activity or individual work posts in the company, or any other views. An important starting point for the identification of the individual points of view is that the sum of the individual input quantities of the EVA must equal to the EVA value for the whole company. This principle applies also to other input quantities of the EVA calculation, when the sum of the individual quantities must equal to the particular quantity for the whole company (Remeš, 2008).

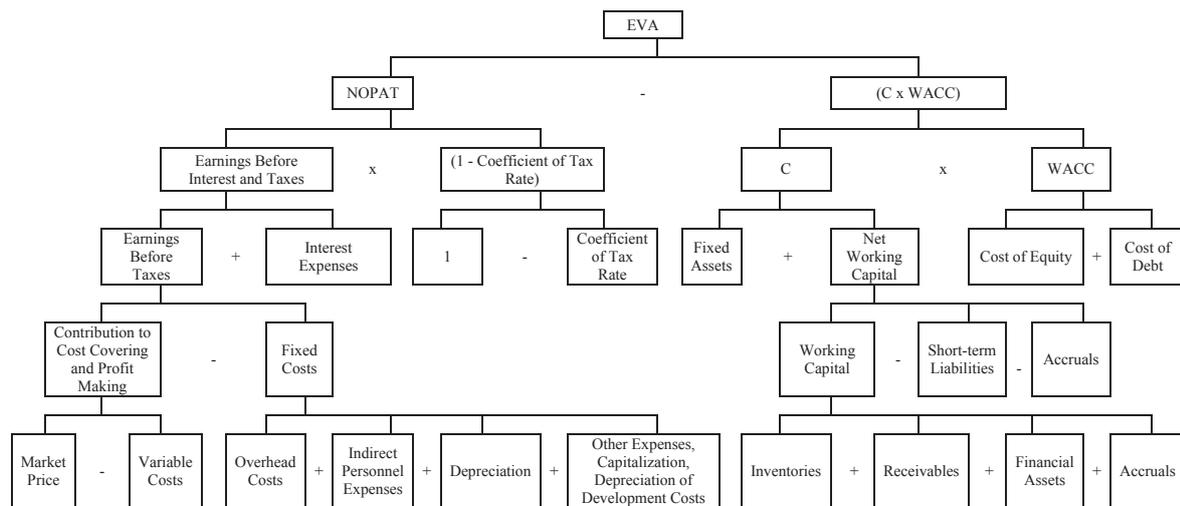
5. Identification of the key factors influencing the EVA indicator level

– a continuous monitoring of selected partial factors, influencing the individual factors affecting the EVA indicator, should be the part of the effective process of management. These factors can be identified by the decomposition of the EVA indicator presented in the Fig. 1. Various decompositions of the EVA indicator can be found e.g. in the sources Kislingerová (2001) and Zalai (2007).

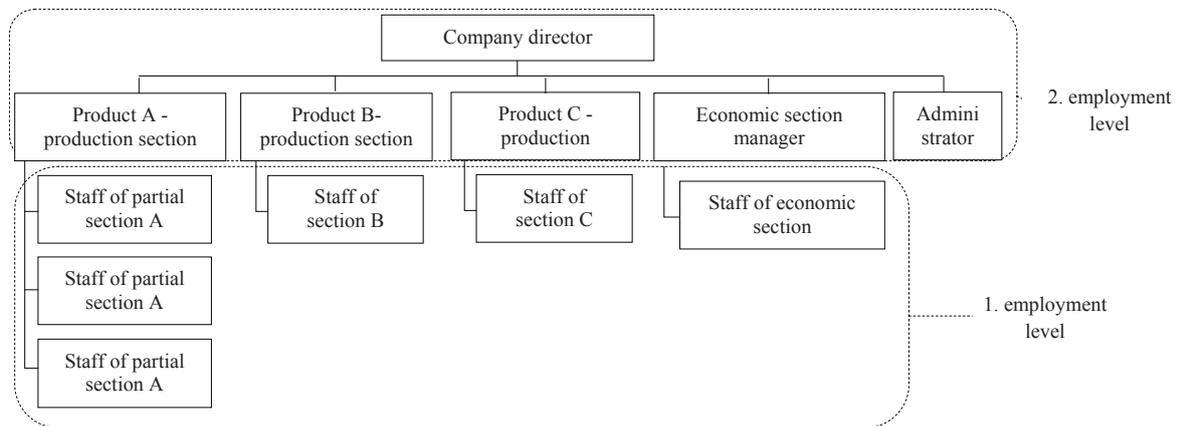
The EVA indicator calculation comes out from the formula (1). The EVA indicator decomposition enables to monitor not only the extent of the activity of the individual elements upon the company performance growth, but also facilitates to identify the key factors influencing the individual elements more easily, thus the whole EVA, and, last but not least, the indicator EVA decomposition becomes the starting point for the establishment of the value based remuneration systems.

● Progress step No. 2 – establishment of the value based remuneration system

While introducing the value based remuneration system to the company, a reasonable definition of persons, to whom the value based remuneration system should refer to, must be paid an attention. It is essential to pay attention to the link between the



1: Decomposition of the EVA indicator according to the individual factors
Source: own



2: A model example of organizational structure in the classification according the employment level
Source: own

behavior of employee, his/her evaluation and the sum of remuneration variable component, to which such an employee is entitled to. From the above mentioned results the need of the identification of the appropriate performance measures, which will significantly connect the activities of such employee with the company value. Unless such measures are identified, the cost increase could occur without the improvement of the motivation effect on the employees.

The establishment of value based remuneration system based on the EVA must clearly come out from the EVA decomposition and must define not only the salary structure, but also functions and salary tariffs, or possibly any other employee levels, according to the organizational structure and calculation and bonus payment. On the basis of the results of Research 2007 and Janda (2004) the authors recommend linking of the remuneration

system not only to annual, but also quarterly reported value of the EVA indicator in the form of a bonus.

Construction of value based remuneration system based on the EVA in small and medium-sized enterprises

The proposal of the value based remuneration system model is designed for small and medium-sized enterprises. Fig. 2 depicts a model example of the organizational structure to support the proposal of the value based remuneration system, in the basic arrangement of the individual work posts and in the classification according to the employment level².

The developed value based remuneration system model is based on the EVA indicator and comes out from the EVA decomposition as presented in the Fig. 1. The model must define not only the salary

2 The employment levels are used further for the bonus calculation.

structure, i.e. remuneration on the basis of the EVA indicator, but also roles and salary tariff levels according to the organizational structure (who is remunerated on the basis of the EVA) and must identify the bonus (calculation and payment).

Roles and salary tariffs levels according to the organizational structure

The details of the remuneration system on the basis of the EVA indicator will be specified in the internal directive of the company, or labor, collective or any other contract following the identification of the category of employees involved in such remuneration. The proposed model suggests the payment of bonus to all categories of the company employees on the basis of the company organizational arrangement and in harmony with the individual functional jobs.

Bonus

The principle of the remuneration system, focusing on the EVA, is in the fact that people are interested in the EVA maximization by means of the paid bonus, which is not paid unless the value for the company owners is enhanced. The core of this system consists of the payment of bonus only with the positive EVA generation. It means that the owners receive more than would be the profit from the similar investment, and part of such surplus is distributed among the people as their bonus.

The main stimulus for the EVA increase is the high level of its regulation extent. The higher value of the EVA, the higher bonuses for the employees and more satisfied owners. In the proposed model the bonus represents the reward. The total volume of the bonus is derived from the reached total value of the EVA indicator for the company.

The computation of the total volume of bonus might follow the formula (3):

$$\text{Total bonus} = CEVA \times EVA_t + PEVA \times (EVA_t - EVA_{t-1}) + ZEVA \times ((EVA_t - EVA_{t-1}) - \Delta EVA) + CB. \quad (3)$$

The quantity *CEVA* represents an optional percentage parameter for the total indicator EVA, *PEVA* expresses an optional percentage parameter for the EVA indicator increase and *ZEVA* an optional percentage parameter for the difference between the factual EVA increase and planned EVA increase. As EVA_t is considered the EVA value in the monitored period for the company, as EVA_{t-1} the EVA value in the last period for the company and ΔEVA is the planned value of the EVA improvement in the monitored period for the company. The last quantity, identified as *CB*, is so-called target bonus.

The computation indicates that proposed remuneration system, based on the EVA, remunerates the employees by the percentage from the reached EVA value, increased by the percentage of the EVA improvement, by the target bonus for the achieving of the EVA target value and by the percentage of the increase of the EVA

change, decreased with the planned improvement of this indicator. It is up to every company which quantities, identified in the mentioned formula, will be applied for the bonus calculation in the remuneration system. The selection must be paid a proper attention based on the above mentioned reasons.

A quarterly interval of the bonus payment is recommended, provided that the EVA indicator is positive. Such recommendation is outlined based on the fact that the payment once a year, as it is a usual practice in the companies, does not actively involve employees in the every day process of the stimulation activity for the improvement of the company performance. To eliminate such deficiency it is important to link the remuneration system with shorter periods. The bonus calculation is specified in compliance with the research results of Staňková (2007) and recommendation of Janda (2004) for the period of three months with the aim to establish the optimal conditions for the effective stimulation of staff to reach the required results.

The deposit of the earned bonus – prior to its payment – to the so-called bonus bank is advantageous. Remeš (2008) explains that it is a bank serving exclusively for the purposes of the monitored financial means for the remuneration payment on the basis of the value based EVA indicator. The funds, deposited in the bank, are partially allocated to the company employees under the conditions stipulated in advance. Their remaining part does not have to be deposited in the bank; the company can use them further for the financing of its operations. Thus, it represents a cheap source of the company property financing. Another advantage is that the employees will be paid higher part of the bonus despite the deterioration of the positive EVA indicator. In the situation with the negative EVA value – and its improvement in the meantime – a sort of the motivational reserve for the employees will be deposited in the bonus bank to reflect the changes of the improved EVA indicator. All these provisions result in the long-term interest of the employees in the loyalty to the company. The bonus must be paid only with reached positive value of the EVA indicator so as to satisfy the motivational effect of this remuneration system.

Only a proportional part, identified by the company in harmony with its needs, is paid from the bonus bank. The proposed model suggests the payment of 1/3 total (cumulated residual) value of the earned bonus registered in the bonus bank (BBB). Such one third forms the bonus for all company employees. Such proportional part will be then paid to the company employees with respect to their work posts (employment level).

Firstly, the weights of the individual work posts (employment levels) in the company must be specified, while the hierarchically lowest function in the tariff level, according to the company organizational structure, will have the lowest weight. For simplification two employment levels

were specified according to the organizational structure as presented in the Fig. 2. A value 1 was assigned to the first employment level, a value 2 to the second employment level.

The weight of function of the particular tariff level (employment level) (VF_i) enables to identify the sum of bonus falling on one average employee (BP_{1zam}) according to the formula (4):

$$BP_{1zam} = BBB / \sum(VF_i \times PZ_i). \quad (4)$$

The indicator PZ_i represents the quantity of employees working in the tariff level of the monitored weight. The value of defined bonus sum per one average employee (BP_{1zam}) facilitates – after its multiplication by the relevant weight of the function, in which the employee is classified (VF_{kzam}) – the identification of factually paid bonus (formula (5) to the particular employee (VB_{kzam}).

$$VB_{kzam} = BP_{1zam} \times VF_{kzam}. \quad (5)$$

Above mentioned remuneration system can be considered as advantageous based on the fact that the EVA indicator unifies not only the interests of owners and employees, but also the concerns among the employees themselves. It means that the main principle of the motivation, based on the above mentioned computation, is the interest of employees in the EVA value maximization. Out of it results that such a system should enhance the co-operation among the individual functions of the employees with the aim to provide the highest contribution. The individuals will build a co-operating team, as the bonus of the indicator EVA comes out from the EVA value for the whole company.

To encourage the motivation of people in the EVA increase the mentioned computation can be linked with the complementary parameters, e.g. volume indicators, or subjective assessment from manager (hereinafter referred to as “plan fulfillment indicator”). Each such indicator should be selected in relation to the employee, his/her ability to directly influence the monitored indicator. The bonus sum would then depend on the percentage of fulfillment of such indicator.

The computation of factually paid bonus should be then adjusted with the indicator fulfillment coefficient (file of indicators), which an employee can directly influence (U) into the following form (6):

$$VB_{kzam} = (BP_{1zam} * VF_{kzam}) \times U. \quad (6)$$

The selection of the plan fulfillment indicator must comply with the identified deficiencies of the key factors affecting the indicator EVA sum. As the key parameter of the plan fulfillment for the employees in the first level can be specified a maximal possible value of the variable costs derived from planned receipts.

An indicator EBIT can be specified for the employees in the second level. The selection of this

indicator is given by the fact that the employees in the second level are employees of the administration and management. The responsibility of these people is not only to co-ordinate the activities of the lower employment level to reach the measures for them defined, but they themselves must be involved in the fulfillment of the partial results leading to the corporate objective. In such a case it is an indicator of the economic result from the operations prior to the cost interests and taxes. From the indicator EVA decomposition (see Fig. 1) it is a quantity hierarchically set to the higher branch of the whole tree. It is essential to acknowledge that these people must participate in the improvement of (not only) the contribution to the fix cost financing and profit generation, but also in the decreasing of the fix cost value and search for the appropriate forms of the external credited financing.

DISCUSSION

The questionnaire research in the category of small and medium-sized enterprises of the South-Moravia region (Staňková, 2007) showed that most frequently the companies (75%) apply the efficiency management control in the remuneration systems. Only seven companies apply the value based remuneration system, out of them one based on the EVA indicator. Furthermore, the questionnaire investigation results were used for the testing of hypotheses on the mutual dependence between the value based remuneration system and size of company or its industry. A mutual independence of monitored features was confirmed with 95% probability in both cases. Real frequencies were also used for the testing of hypotheses on parameter p binomial distribution. It was proved that in 14% of companies were established conditions for the application of the value based remuneration systems, and that in 50% of small and medium-sized enterprises the conditions for the utilization of the value based remuneration systems based on the EVA indicator can be established. Pavelková (2005) and Remeš (2008) testify the possibilities of the EVA indicator applicability in the remuneration system.

Moreover, as regards the perks, the research investigation results indicate that most frequently the companies provide their employees with the food vouchers and development and education contribution. The companies change salaries of their employees usually once a year. The rate of salary change is approximately from 4 to 6% in 28.33% companies. Presented results can be confronted with the statement of Janda (2004), who specifies that the existence of salary does not contribute to the everyday motivation improvement and the expectation of salary at the end of each month has a minimal influence on the willingness of people to work. Three months after the salary increase the employees feel that they should have a rise again. From a.m. arises that the employees are motivated to better performance by the expectation of change.

Consequently, Janda (2004) recommends the period of three months as the most appropriate duration for the specification of motivation bonuses.

As regards the salary raise, the salaries can be increased both by an absolute sum and a percentage from the base pay. More advantageous is the percentage relation as it supports the maintaining of the company salary system stability (Urban, 2007). According to the authors, the salary increase sum should be derived from the specific features of each company, and should take into account disposable financial funds defined for the salary payment. While specifying the frequency and salary increase rate an added value of every employee should be taken into account, i.e. the salary increase rate should minimally correspond with the rate of the increase of added value generated by the particular employee. The companies must monitor whether their labor costs – in the effort to motivate their employees – do not start to rise without any control.

The results of Research 2007 also point at the insufficient linking of the company strategy with the remuneration system. According to Vávrová (2004), such a deficiency must be eliminated to be able to define the individual partial strategies. Another deficiency was noted in the field of taking of the needs of employees into the consideration. Only 13.79% of companies stated to reflect the needs of employees in their remuneration systems. According to Čadil (2006), Staňková (2009) and Urban (2007), many companies think to have an appropriate motivation environment for their employees. Generally, the employers tend to determine the need of their employees. Many times they do not respect the needs of their employees, which – in the worst cases – can result in the loss of their best staff, thus the influencing of the future development of their company. Therefore, the establishment of the remuneration systems reflecting mainly needs and wishes of the employees with respect to their work behavior and results is crucial. The measures for the employee motivation improvement could lie in the categorization of employees and selection of an appropriate stimulation tool. The remuneration based on the EVA indicator can represent such stimulation tool. A precondition for the EVA implementation into the remuneration system is the introduction of the EVA indicator into the company management. The understanding of the EVA indicator concept in the company by its users is essential, thus facilitating the transfer to the system of thinking of company employees as well as its owners focusing on the company value improvement. Other indicators – besides the EVA indicator – can be used in the value based remuneration systems as well. According to Ruthner (2003), both internally identified indicators and capital market oriented indicators can be used in the value based remuneration systems. The capital market oriented indicators are consistently derived from the company objectives. They reflect the expectations of investors as regards the company

value and are clearly measurable. They express the company stock exchange value, i.e. externally quantified indicator. In the field of remuneration it can be applied as a long-term remuneration component. Its principal disadvantage is that its application into the value based remuneration systems must take into account a strong correlation with the capital market. This fact causes a random oscillation of the indicator, having no link with the behavior of the employees. Based on this reason in the application of the capital market oriented indicators into the remuneration system the employees demand high bonuses corresponding with the high level of uncertainty and risk, especially in a short-term assessment for a certain period.

Internally specified indicators can be applied in the remuneration systems as well. They come out from the company calculations. They are quantified on the basis of the company calculations. They are advisable for a short-term assessment for a certain period. Usually they are closely linked with the company value. They facilitate a derivation of the short-term measures from this long-term target indicator. The internally specified indicators facilitate the congruence of all company objectives (Ruther, 2003). As the company value is calculated by the discounting in the future expected and by the risk burdened indicators, which can never be forecasted with certainty, the selection of company target indicator must be paid a special attention (Riegler, 2002; Ruther, 2003). As mentioned above, the internally specified EVA indicator is selected for the remuneration model proposed in the submitted article.

The application of the EVA indicator in the value based remuneration system will be facilitated by an appropriately selected company informational system, which will be able to process – without any major impacts – the input data for the EVA indicator computation, thus eliminating, as states Remeš (2008), its low application level in the corporate practice. The EVA indicator application into the company practice can be facilitated by the guideline of the individual progress steps of the conversion of the accounting data to managerial data. Staňková, Režňáková and Beranová (2010) are involved in this particular issue in their publication.

In spite of the fact that e.g. Remeš (2008) indicates the advisability of the value based remuneration system implementation for the highest employee level, i.e. the level of management, prevalingly because of the decreasing causal link of the working activities with the company value, the submitted article proposes the involvement of all company staff in the EVA indicator improvement.

The employees should participate both in relative and extensive volume indicators. The introduced remuneration model to be applied in the small and medium-sized enterprises proposes a bonus, allocated among employees according to their employment level (two levels were defined as a sample) and, possibly, with respect to the plan

fulfillment indicator. On the basis of the procedures, defined in advance, the calculated bonus can be tied to the fulfillment of e.g. extensive indicator. The suggested model presents the possibility to pay the employee, assigned to the first employee level, the calculated bonus in compliance with the plan fulfillment indicator, defined in advance, presented in the decomposition of the indicator EVA, on the variable cost base. In case of the bonus calculation for the particular employment posts an indicator, which the employees in the particular employment level can influence directly, can be applied; therefore, it does not have to be the indicator directly reflected in the EVA indicator decomposition, but it can be its partial quantity. As also the agriculture companies participated in the Research 2007, we can mention the examples of such partial quantity in this specific group of companies, e.g. for the workshop staff the indicator of costs spent to the spare part consumption, fuel storage staff the indicator of the sum of savings of fuel consumption, mechanization means staff the volume of services rendered to the external subjects. In the vegetable production sector the employees might be involved in the volume indicator of mowed hectares or mowed tons of harvested crop, sowed or ploughed up hectares of soil, also with respect to the services provided by them externally. The employees in the livestock production could be rewarded on the basis of the livestock growth volume. The livestock growth volume means e.g. the sum of produced kilograms of animals in the monitored period.

As regards the technical-administrative staff and other management, the accumulation of savings can be monitored (e.g. telephone costs, internet, property insurance, business subject etc.), as well as the proposals for the innovations (e.g. in the field of the compliance with the technical – economic standards, quality performance provision, extension of operations, administrative agenda management etc.).

As previously mentioned, the involvement of the management staff in the indicators, presented in the indicator EVA decomposition, is advantageous. The employees should become aware of the fact that they themselves are responsible for the communication and creation of the correct ways of the achievement of defined objectives.

Finally, the authors of the article can refer to the existing possibility of the EVA indicator application in the remuneration systems. By means of the EVA indicator, applied in the remuneration system, the employees can be motivated in the quest of the connection of the behavior of employees in accordance with the objectives, defined by the company owners, through the variable remuneration depending on the value based indicators. It is rather new and unexplored field in the Czech conditions. For that reason an undivided attention should be paid to this field and should be subject to various research studies in order to support the establishment of the methods contributing to the company value maximization.

SUMMARY

The article focuses on the remuneration of the employees with the accent on the value based remuneration systems with the EVA indicator at the head.

The objective of the article was to describe the process of the EVA indicator implementation into the value based remuneration system and to introduce the model of the employee remuneration applying the EVA indicator in the environment of small and medium-sized enterprises. In order to accomplish this particular objective the submitted article came out not only from the knowledge, acquired by the secondary research, but also from the primary research data. The primary research was pursued by way of the investigation questionnaire. The results, yielded by the investigation questionnaire, were further assessed both by the application of Microsoft Office Excel and software XLStatistics – to verify the existence of mutual dependences of selected variables – but also by means of the test statistic calculation for the testing of hypotheses on the parameter p binomial distribution. So-called paired methods based on the logical thinking, i.e. analysis and synthesis, induction and deduction, and so-called empirical methods were applied for the article writing.

The investigation inquiry results as carried-out by Staňková (2007) were compared with the knowledge acquired by the secondary research. The compared outputs focus on the factors affecting salary level, employee benefits, intensity of their exploitation, changes of salaries, percentage sum of the changes of salaries, and company remuneration systems, among which the value based remuneration system is also monitored. Moreover, the article was involved in the analysis of the current condition of the EVA application in the company management and remuneration systems. A low level of the application of this effective indicator is noted on the grounds of the obtained results of conducted analysis. The text of the article does not omit the reasons of the EVA indicator selection as well as its calculation. The readers will familiarize themselves with the definition of prerequisites necessary for the EVA indicator implementation into the value based remuneration systems, characterized in the introductory part, with the description of the individual progressive steps of the EVA indicator implementation into the value based remuneration system and with the proposal of model of the employee remuneration applying the EVA indicator in the environment of small and medium-sized enterprises.

Acknowledgement

The article is the part of the project *Knowledge Development for Information Support Improvement of Company Economic Management* financed by the Internal Grant Agency of the Brno University of Education with the registration No. FP-S-11-1.

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Adress

Ing. Marie Jakubcová, Ph.D., doc. Ing. Anna Fedorová, CSc., Ústav financí, Fakulta podnikatelská, Vysoké učení technické v Brně, Kolejní 2906/4, 612 00 Brno, Česká republika; e-mail: jakubcova@fbm.vutbr.cz, fedorova@fbm.vutbr.cz