View metadata, citation and similar papers at core.ac.uk brought to you by CORE
provided by Research Papers in Economics

SOLUTIONS FOR MEASURING THE FAIR VALUE OF THE WORKFORCE

Deaconu Adela
Babes-Bolyai University, Faculty of Economics and Business Administration, Romania
400591, Cluj-Napoca, Th. Mihali Street, No. 58-60
Email: adela.deaconu@econ.ubbcluj.ro, Phone: 40 + 0264 41.86.52

For the past decades International Accounting Standards and other Anglo-Saxon standards, for example the American ones, had promoted fair value as a valuation basis for the elements of the financial statements. Thus, the quality of the financial information has improved and users can make more pertinent decisions. In making decisions regarding the operating activity the workforce or staff is also very important, with the corresponding remunerations, both the classic ones and other financial incentives. This study focuses on compensations in the form of equity shares, resorting to the content analysis of the standards on the subject and the specific literature. It offers solutions regarding the correct estimation of the fair value of the entailed goods, services, financial instruments and expenses.

Keywords: fair value, workforce, employee benefits, share options

JEL classification: M40, M41

1.Introduction

The workforce is essential in the production and commercialization process of a company.

From a legal point of view, the term staff refers to all people connected to the enterprise through the means of a working agreement, which is characterized by three elements: the existence of actual work; the remuneration generally referred to as salary; the existence of a subordination relationship between the employee and the employer. The staff category does not include intermediaries and consultants (commissioners, accounting experts, attorneys) who are independent agents that receive commissions and fees (Barker, 2001).

Staff generates a cost (wage bill) for the enterprise recognized as a liability in the financial statements. Separately from the monthly salaries, the company recognizes other social benefits granted to employees, leaves of absence and profit share payable to employees.

The issues above mentioned refer to the usual forms in which advantages or benefits granted to employees are reflected. Other rewarding schemes differ from country to country, from one accounting norm to another, depending on factors that are rather economic and social than accounting related.

On the accounting level specific norms have been issued by different national, regional (European) and international organizations, especially in the last period of time when social security, pensions and staff incentives became more in more imperative and sophisticated. It is our opinion that IASB has the most complex approach to staff benefits presented in its norms: IAS 19 *Employee benefits*, IAS 26 *Accounting and Reporting by Retirement Benefit Plan*, and IFRS 2 *Share-based payment*.

The international accounting norms classify staff benefits as:

- Short-term employee benefits (allowances, wages, social securities);
- Post-employment benefits (pensions, other pension benefits like life insurance, post-employment medical insurance);
- Other long-term benefits (for example, long-service or sabbatical leave, compensated absences, profit sharing plans, bonuses, deferred compensation programmes, if they are payable in more than one year);
- Benefits for signing the working agreement;
- Compensations in the form of equity shares (for example, share options).

Out of these 5 types of benefits only some are subject to fair value. This is the case of those benefits that either call for a discounted value as they reach maturity after the financial year has ended, either call for the valuation of the assets contained by the plan enforcing the benefit distribution. In conclusion, post-employment benefits, other long term benefits and compensations in the form of equity shares are subject to fair value.

The following focuses on compensation in the form of equity shares.

2.Compensations in the form of equity shares

Such compensations are materialized in shares, share options and other financial instruments issued for staff at a lower price than the one used in relation to third parties. It is a method of remunerating the entity's managers but also other employees (Mirza *et al.*, 2006).

On a larger scale regarding the recognition of certain equity elements, IFRS 2 *Share-based payment* mentions aspects related to payments made to employees on share basis i.e. payments based on the value of the entity's shares.

This type of transactions is part of the three categories mentioned in IFRS 2 as specific to share-based payments, namely (Obert, 2004):

a) Equity-settled share-based payment transactions;

b) Cash-settled share-based payment transaction;

The entity acquires goods or services by incurring liabilities to the supplier of those goods or services for amounts that are based on the price or value of the entity's shares or other equity instruments of the entity (IASB, 2005).

c) Transactions settled by issuing equity instruments or in cash, according to the decision made by the beneficiary or the entity.

The most recent type of share-based payments to employees are specific to the first type of transactions i.e. share options for employees as a form of remuneration.

In the following part we will describe in detail this type of transaction.

Share options can be issues as part of a plan regarding the employees' equity share. Their owner receives the right to a number of shares at a certain price.

The basic principles of recognizing share-based payments stipulated by IFRS 2, including employee payments, are:

- Fair value will be estimated for goods and services received by the entity, and when it can not be easily determined fair value will be estimated for issued equity instruments;

Fair value is estimated at the date of agreement between the entity and third parties, agreement that enforces the third party's right to receive shares or share options at a future date as long as the vesting conditions within the contract are satisfied (Obert, 2004).

- Recognition of certain expenses when the goods are received or services are rendered (employees' work).

In the case of transactions with employees (share options) fair value can not be reliably estimated for employee services received. Thus, the entity will measure the fair value of the equity instruments granted.

The fair value is measured at grant date, when the employee accepts the engagement.

In respect to the methods of measuring fair value for share options, IFRS 2 specifies the need to use a market value. In case a market value is not available the entity should use an adequate valuation model. In Annex B of the standard the Black-Scholes-Merton model, the binominal valuation model and other similar models are mentioned but no other details are provided. Other accounting norms which focus on the same issues, like the American ones (Raffournier, 2000), indicate the same two models (Black-Scholes and the binominal model), allowing entities to make use of other models (Epstein and Mirza, 2005). Likewise, the international valuation standards for assets and business supply guidance regarding the way of estimating fair value when the conditions for it measurement are not meat (IVSC, 2005).

Shares and share options granted to employees are recognized as expenses for the period the employee was granted the option, in other words, for the period in which the option is guaranteed (it becomes unconditioned). In order to recognize a reliable, correct expense the way of estimating fair value is crucial. This is the subject of our study's next chapter.

3.Estimating the fair value of shares and share options

As a general rule, in the case of share options granted to employees, there are no available market prices, having in mind the fact that these options are not tradable. IFRS 2 shows that in the absence of market prices the entity should resort to a valuation technique to estimate what the price of those equity instruments would have been on the measurement date in an arm's length transaction between knowledgeable, willing parties (IASB, 2005). It is noticeable that the intention is to reach a market value, using alternative models like the model based on costs, and the model based on income (benefits).

Finally, if the entity cannot reliably estimate the fair value of its equity instruments, it will estimate the intrinsic value. As regards to the moment of valuation, the intrinsic value is initially measured at the date the entity obtains the goods or services, and subsequent at each reporting date and at the settlement date, any eventual changes in the intrinsic value being recognized in the profit and loss account (Van Greunig and Koen, 2003).

The present market price of a share is influenced by: the discounted exercise price, the dividends that were not received in the guarantee period, adjusted according to the estimated volatility.

The strike price is actually paid at the date of the exercise, time in which the owner can invest the respective amounts in other parts. This is the reason why the profitability of risk-free securities (bounds) available on the market is taken into consideration. The expression of this neutral efficiency of the market does not totally belong to the owner of the option taking into consideration the fact that shares produce dividends while the option exists. Thus, the value of the deferred strike price payment is the difference between the market efficiency and the efficiency available by exercising the option today and owning the shares. More exactly, the entity calculates the difference between the discounted interest of securities from which benefits could be obtained by investing on the market and the discounted value of the dividends estimated to be received for the envisioned duration of the option.

The volatility of the share price refers to the security's capacity to gain out of the basic shares distribution, while it is exposed only to the loss of the option premium, not the discounted total share value (Epstein and Mirza, 2005). In other words, the volatility represents the sum of the amounts in which a share price fluctuates during a financial year. It is shown as a percentage and it is estimated base on the share price's history. If the shares are not quoted, the entity can resort to the share price of listed companies within the same business domain, or to an estimation based on the established valuation models. IFRS took into consideration the case in which shares are not quoted and thus there is no possibility of transfer to the option's value. It has been noticed that this leads to an early exercise of the option. Therefore, the lack of transfer possibility should rather be reflected within the estimated period of the option than through an explicit adjustment for this lack.

There is another aspect mentioned in IFRS 2 that influences the fair value of share options namely the guarantee of options. The guarantee conditions should not be influenced by the value of the option and they should be taken into account when establishing the number of options to be recognized as expenses.

Annex B of IFRS 2 represents an implementation guide for the requirements regarding the fair value estimation for issued equity instruments. It is focused on shares and share options granted to employees and the fair value measurement concerns the grant date.

In respect to shares, the guide refers to the market value of the entity's shares, adjusted according to the terms and conditions under which the shares were granted. If this market value is not available because the respective shares are not tradable on the market, an estimation of a market value is required but no methods are mentioned.

In respect to share options, there is much focuses on to them within the guide, the information presented is synthesized below.

Usually there are no market values available, even if there are tradable comparable options. However, it is difficult to find similarities because of the terms and conditions specific to each option.

In this case it is necessary to resort to valuation models. Again, difficulties could rise, as the premises of all models are not in accordance to the specific conditions of the valuated options. In order to choose a certain valuation model, it is important to analyze the factors which participants on the market would take into account. They are willing and knowledgeable and analyze the following: the lifespan of the instruments; the duration and date of the exercise; the possibility of exercising the option before its maturity.

In accordance to the expectations of the participants on the market, the valuation models take into account at least the following factors: the option's strike price, the duration, the current market price of the share, the estimated volatility of the share price, the dividends expected to the cashed from the shares, and the no-risk interest rate related to the option's duration.

Out of these elements, the ones that require estimations are: the exercise behavior that sets the duration of the option, the volatility of support shares and their estimated dividends.

The estimations consist of approximating the expectations that could be formulated by an external partner with access to detailed information regarding the exercise behavior of the employees, based on the available information at the grant date (IASB, 2005).

Expectations are usually based on history with adequate changes if there is a reasonable estimation that the future will be different from the past.

4.Recognition of share options

The option's fair value, measured at the grant date, will be accounted for as an expense thus recognized in the profit and loss account, through allocation according to the financial years related to the duration until maturity.

When the services rendered by employees are settled by equity share-based payments, the counterpart of the recognized expenses is an increase of equity.

IFRS 2 also presents the case of subsequent changes to the option's conditions. This can imply the following:

a) the changes can be recovered from the initially recognized fair value, at the grant date. Thus, the changes in fair value will have to affect the profit and loss account. An eventual increase in fair value implies that the additional amount will be accounted for as an expense for the period that elapses from the date of the change until the new duration.

b) if the subsequent change increases the guarantee's profitability, the consequences will not be found as changes in fair value but in the number of options estimated to be guaranteed.

c) if the exercise period is directly influenced (by the cancellation of shares and settlement before the end of the guarantee duration), the fair value will have to be accounted for as an expense for a shorter time period. In this case, the consequences would be:

- if payment is made to the employee for the cancellation of the shares, this is considered redemption of share equity and will decrease the value of equity. Furthermore, in case payment exceeds the recognized equity value, the difference will be accounted for as an expense;
- if the entity settles the share cancellation by granting new options, the accounting entries are specific to the initial scheme.

Conclusions

Nowadays, from the point of view of an economic entity, the workforce and the effect of its remuneration is a significant operating element, which must be correctly reflected in the financial statements in order for it to be useful in the decision making process.

This paper presents the treatment indicated by the international accounting norms for one of the staff remuneration forms, namely compensations in the form of equity shares. This is materialized in shares, share options and other financial instruments granted for the entity's employees. The basic principals for recognizing the respective elements are fair value measurement for assets (goods/services received by the entity as a counterpart and likewise granted equity instruments), and expense recognition when the goods and services are received.

In order to estimate the fair value it is recommended to establish the market value and, if the conditions necessary to obtain a market value are not satisfied, the entity should resort to valuation models. These models result from the implementation of the other two approaches based on direct comparison, which lead to market value, namely the income approach and the cost approach. Knowing these approaches or valuation methods is crucial in order to reflect the value of the workforce in an argumentatively and transparent manner.

References

1. Barker R., Determining value – Valuation models and financial statements, Prentice Hall Publications, Pearson Education, Edinburgh, 2001.
2. Epstein J.B., Mirza A.A., Interpretarea şi aplicarea standardelor internaţionale de contabilitate şi raportare financiară, traducere în limba română prin editura BMT Publishing House, Bucureşti, 2005.
3. International Accounting Standards Board, Standardele Internaţionale de Contabilitate 2005, traducere în limba română, Ed. CECCAR, Bucureşti, 2005.
4. International Valuation Standards Committee, Standarde Internaţionale de Evaluare, ed. a 6-a, traducere în limba română, ANEVAR, Bucureşti, 2005.
5. Obert R., Pratique des normes IAS/IFRS, Ed. Dunod, Paris, 2004.
6. Raffournier B., Les normes comptables internationales, Ed. Economica, Paris, 2000.
7. Van Greunig H., Koen M., International accounting standards – A practical Guide, ediţie bilingvă, Casa de Editură Irecson, Bucureşti, 2003.
8. Mirza A. A., Holt G. J., Orell M., IFRS Workbook and Guide, Wiley, 2006.