

# Models Measuring the Effectiveness of Forms Raising the Competences Large Enterprises Operating within Polish Territory – Case study

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## Abstract

Raising staff competence is focused on using various forms, including trainings, courses, workshops, coaching, mentoring, post-graduate studies, internships in different company branches or the Assessment and Development Centre. According to the references, measuring the effectiveness of all the forms mentioned above, they all adopt the name of training evaluation. DeSimone states that it is a process of systematic collection of descriptive data and judgments, necessary in making effective decisions about the selection, adaptation, and the possibility to modify the various training courses and development activities available [3]. The author quotes this particular definition, because it is entirely consistent with her views, and it goes beyond the definition of training by expanding it to development. The author would only replace the word "development" with the term "raising competence".

There are plenty of references of various models measuring the effectiveness of trainings. After completing a reference analysis and an earlier conducted research analysis, the author understands that the term 'training' can be understood as: many forms of raising competence, including the training itself. The author also believes that the presented models can be easily used in the context of raising competence and not strictly in the sense of training.

This article is intended to demonstrate the synthetic description of the most important models, from the author's point of view, as well as the results of the case study research of large enterprises operating within the territory of Poland, on the application of models measuring the effectiveness of the forms of raising competence, as well as on the approaches to such forms.

## Synthetic Presentation of the most Important Models Measuring the Effectiveness of Forms in Raising Employee Competence.

The Kirkpatrick's Model is based on four, fundamental questions, which translate into four levels of evaluation:

- Response - at this level, all data on the response of participants after completing training is collected, as well as the measurement of their satisfaction with the help of questionnaires; this is the level of measuring the effect from the trainee point of view, a summative evaluation;
- Acquired knowledge and skills - the verification whether the objectives of the programme associated with the knowledge, skills and abilities, which were to be communicated to participants, have been met. This is usually verified by the so-called

'post-test' or an examination. Post-test only makes sense, if at the beginning of the course or before the training a pretest was carried out. The level is a summative evaluation;

- Behaviour - at this level, an evaluation is used to check, whether participation in training improved the employee's effectiveness. Testing out the results will show whether the participant is able to use the knowledge acquired at the place of work, or not. It is based on checking whether students are able to use this knowledge and skills at work in a day-to-day work environment, and not only during the training. This evaluation level is carried out in a formal (tests) or informal manner (e.g., observation). The level is a summative evaluation;
- Effects (results) - the purpose of this evaluation is the assessment of costs incurred as opposed to the benefits obtained thanks to carrying out training activities, such as: the effect, for an organization, in the form of cost reduction due to certain operational changes, an increase in the quality of tasks and responsibilities performed, an increase in the number of employee responsibilities, i.e. increased productivity. The effectiveness assessment usually covers several areas, including: finance, the mood/morale at work, team work quality, etc. Data collection and analysis, at this level, is often long, difficult and costly in comparison to the remaining three levels, but the results and conclusions are often very valuable in the context of long-term business or organization operations [8]. The level is a summative evaluation;

In 1987, Brinkerhoff suggested another model –a six stage model, created by expanding the Kirkpatrick's Model by two initial analyses levels of training needs and appropriate training design [1]. It should be added that even the Kirkpatrick Model has been modified. The first three stages are formative, beginning with training needs analysis, next is the design and implementation stage, i.e. assessing the adequacy and content of activities related to raising the employees competence [4]. The consecutive stage of operation and implementation is to implement the programme of raising competence [6]. After the completion of which, summative stages occur. It is initiated with the stage of knowledge and skills acquisition, which examines changes in the level of knowledge, next is the stage of utilization and durability, i.e. evaluation of the use of the acquired knowledge and skills, and the stage of return to assess the impact on the organization, including ROI [5].

In 2003, Brinkerhoff modified his model by giving it the name of SCM (Success Case Method). The new version of the model would allow for obtaining answers to the following basic questions, which in the earlier version of the model remained neglected [2]: What is happening? What type of results (if any) the training programme can help you to achieve? What is the value of these results? What given initiative (training) could be improved? The answers should provide information about several important aspects: the method, of how a given form of raising competence is used, positive effects or changes as the result of a new training programme, identification of organizational units, which will benefit from the new forms of raising competence, their results, as well as estimated return on investment, or support of the decision-making process in relation to the programme value, taking into account its current implications for the organization and employees. While the main disadvantage of SCM is the fact, that it requires a certain level of judgment referring to determining results and their impact on employment, apart from the prediction of problems that trainees can or could encounter after returning to work [7].

According to the author's opinion, special recognition should go to the model proposed in 2001 by Ramsey and team. He designed the GAP model, also known as the behaviour model. An evaluation at all four levels, named GAP, assesses the various behaviour of individuals that use forms of raising their competence. The levels are of a purely

summative character [5]. In accordance with the concept, the satisfaction of trainees is related to their knowledge improvement, new skills acquisition, as well as behaviour at work. A good model should be able to efficiently evaluate the current and desired effect associated with satisfaction, learning and change in behaviour at work. The model was based on the analysis of the most appropriate approaches to evaluation (formative, summative, confirmative, meta-evaluation), next, compared to the existing models and finally, the most relevant measures were chosen. This model proposes a two-step evaluation process of participants. In the first phase, information is collected in order to assess the behaviour in the following four dimensions:

- organization-desired behaviours;
- trainer-targeted behaviours;
- trainee-intended behaviours;
- trainee-in-workplace behaviour [5].

The second phase is the identification of differences occurring after consulting and training activities, through a series of comparisons:

- organization-desired behaviour vs. employee-at-work behaviour;
- organization-desired behaviour vs. trainer-targeted behaviour;
- trainer-targeted behaviour vs. trainee-intended behaviour;
- trainee-intended behaviour vs. trainee-in-workplace behaviour [5].

Multi-dimensional assessment provides information on the actual behavioural changes of a trainee at work, their improvement, as well as the weak points of raising competence, preventing the achievement of certain goals. It also helps in formulating the goals in terms of future forms. What is more, according to the author's opinion, elaboration, comparison and cross-breeding are possible to be carried out by business practitioners without generating excessive costs, as is the case in some other models.

### **The Empirical Research Methodology Based on in-depth Interviews with sample characteristics research**

The empirical study included 40 in-depth interviews conducted in large and medium-sized companies. Small and micro-businesses have not been included into the empirical research, since the results of pilot studies show that the data is marginal and does not contribute anything new to the study. Interviews were conducted via telephone or in person. The form depended on the preferences of the business undergoing the study. However, the research form did not have any effect on its results. More often, the interviewers received more detailed data over a phone interview, rather than during a personal visit. The interview was also in the form of an unstructured interview.

The study included 17 medium-sized and 23 large enterprises; however, for the purposes of this article, only mini-case studies on selected large enterprises will be included. Only one case, from each discussed industry, will be presented. Based on the fact that all businesses participating in the in-depth questionnaire based survey chose to remain confidential, in order to develop the empirical material, only the industry sector and the synthetic business description are used, therefore, not allowing their later identification by the reader.

### **Results of mini-case studies**

#### **Enterprise- service and commercial sector (media industry)**

The company has been operating on the Polish market for several decades. It collects, edits and transmits information from Poland and abroad. The company prepares

news services for the media, institutions, government offices and business owners. The company consists of several editorial teams specializing in business, politics, science or sports. News is created by both, expert editors with many years of work experience, as well as by the new, young and talented reporters.

The team is made up of 76% of people with a tertiary education, 22% with a secondary and only 2 % with a primary education. Once a year, the entire company's staff undergoes testing that assesses their expectations towards development and training participation. In addition, staff training needs are analyzed. The company also applies the employee assessments using the 180-degree review method. This method allows for the determination of future objectives and necessary actions needed for their implementation process. Staff undergoes both, open and closed type trainings. Foreign language courses, sales and managerial skills improvement training courses are also available. Additionally, employees are offered the completion of post-graduate studies. The company has specific job descriptions, which are applied during the recruitment process of new employees. Requirements for the newly hired are as follows - work experience, home and world knowledge, ability to work in a team or foreign languages.

Returning to the subject of training, according to the management board, 35% of all employees participated in various forms of development in the past year. The most accurate solution proved to be the closed training type. Employees learn from each other, communicate their knowledge, and because they get to know each other so well, they are able to clearly define their needs. Employee development translates extremely high into an increase in the number of customers. In addition, there is an increase in the company's efficiency and performance. Information obtained after each training, is thoroughly verified by the management and the HR department through a survey study method, recognized by the company as a tool measuring the effectiveness of the forms raising employee competence. The company also uses sales effectiveness measures.

### **Enterprise- service and commercial sector (pharmaceutical industry)**

The company, whose mission was to create modern, high-quality services for the pharmaceutical industry, was founded in 1990. The company is a valued distributor of pharmaceuticals and has a Polish nationwide sales network. Besides medications, the company also offers medical equipment, herbs and cosmetics. The subsidiaries are responsible for medication distribution to pharmacies throughout the entire country.

The highest percentage employed in the company are people with a tertiary education (65 %), followed by a secondary education (35 %) and only 5% of people with a primary education. The company operates a training needs analysis, along with staff assessment, which helps to determine further developmental activities. It also uses job descriptions, applied during the recruitment of new staff. A candidate's experience, diligence and communicativeness are extremely crucial; therefore recruiters hold verification interviews with previous employers.

The company also highlights employee training. The most accurate are the specialized trainings, which are prepared for specific departments. This type of form of development is offered to the employees nominated by their managers. Recently, those nominees have constituted 15% to 20% of all the company employees. Training effectiveness measurements are determined by the results of surveys conducted among people taking training courses and undergoing trainings. Based on the examination of measures, (the first 2 phases of Kirkpatrick's Model) it can be concluded that employee development had a major influence on the increase in the number of customers, effectiveness measures and the company's overall growth.

### **Enterprise- service and commercial sector (assembly industry)**

This company has been operating on the market since the nineties. It provides specialized and comprehensive services for installation, removal, packing and relocation of machines and industrial facilities around the world.

According to the CEO, half (55 %) of the staff has a tertiary education, 25% a secondary education, while the remaining 20% - a primary education. The company does not analyze the needs and organizes only the necessary training. By utilizing the assessment interview, the owners evaluate their employees and establish further steps. When choosing a new employee, the job position description and the candidate's experience is taken into account. Frequently, the information about a potential employee is verified with past employers. The company prefers candidates who already possess having a satisfactory level of competence, those who do not require immediate skills development training.

Considering the trainings used by the company, the most frequently used is mentoring, where "an experienced employee is able to explain all the important issues to his/her subordinate; the new employee has a faster job adjustment". The team undergoing the most training is the managerial team, or any staff for which trainings are absolutely necessary. However, in spite of this, they only form 3% to 5% of all workers. Results of all trainings are monitored by the Development and Training Department, which conducts training effectiveness measurements. However, the trainings already conducted contribute to an average increase in business performance and efficiency. It is also expressed in the number of new customers.

### **Enterprise- service and commercial sector (hospitality industry)**

The company offers a comprehensive business and hospitality process services. It has been operating on the Polish market for the past several decades.

The following research indicates that up to 65% of the staff has a secondary education, 20% a tertiary education (mostly managers), and the lowest percentage of the entire staff, only a primary education. The company addresses employee needs through analytical career and development path studies, as well as examining the demand for participation in trainings, mentoring, coaching, etc. In addition, there is a detailed analysis of training needs; hence staff training is a regular occurrence, with the emphasis on competence improvement. It is extremely important that the company utilizes an assessment interview for employee evaluation, and that the evaluation findings are incorporated into the implementation process. In addition, trainings guarantee the staff their further development. The company utilizes job descriptions and competency profiles. They are of a great importance, since they are the primary criterion for new staff recruitment, however, their experience, competence and conscientiousness is also of great significance.

According to the company, the most accurate form of competence development is coaching, because "it helps people learn". In recent years, 25% of the personnel (mainly executives, managers and operational staff) participated in training or other forms of staff development. The Board of Directors emphasizes that staff development (up to 70%) contributes highly to the company's overall growth, business performance and increasing number of clients, although not to such a great extent. Measuring the effectiveness of the forms of development and the effectiveness of training (based on the first 3 phases of Kirkpatrick's Model) are both included in the company's business strategy and are implemented by HR.

### **Enterprise- service and commercial sector (finance industry)**

The company has been operating in Poland since 2003. Its business concentrates mainly on being a financial intermediary. For the past two years, they have also been dealing

with brokerage operations. The enterprise is classified as a large, privately owned company, with a 100% Polish capital bond.

As many as 70% of the staff members completed higher education and the remaining 30% - secondary education. The previously mentioned cofactors suggest that the company has a highly qualified staff. Despite such high ratings, the company continues to analyze employee training needs and improves its staff competence. The above analysis is closely related to other forms of strategic analysis of HR, e.g. employee evaluation. In addition, the company has specific job descriptions. It only lacks the formulation of competency profiles. Although the company does not have these profiles, it tries to match the already existing job descriptions with potential, future employees. It is important to the company's management that the experience of the applicant and their competence is necessary (disregarding the level of education, although it is clear that in such an industry, a person with the desired competence, is not a person that only completed a primary education), so she/he can effectively begin work without prior, time-consuming work training. Another essential feature required of candidates aspiring to work in the company are the desire for personal and professional growth and extreme creativity.

All workers are involved in training activities regardless of their position within the company. According to the management, the most effective method of skill improvement is coaching, because it is the only way that "allows for the true improvement of the employee's work; it offers new solutions". The management also states, that competence development forms, only in moderation, in translation into the overall efficiency of the business and staff involved in training. Although it is very little, they do also have an impact on business performance and a potential increase in number of clients. The company occasionally measures the effectiveness of a given job position, although such tools are incorporated in the company's strategy, the Human Resources Department is the one responsible for their implementation.

### **Enterprise - service and commercial sector (shipping/delivery industry)**

The company has been involved in Europe, including Poland, for over a decade, and its main task is document and parcel delivery. It has a large number of branches throughout Poland and deals with more than one and a half million packages per month. Despite high competition, the company sustains a strong market position due to having a diverse services offer, supported by advanced interactive tools that manage items for shipping. As the company has many branches, it employs more than a thousand people throughout the country, and therefore it is classified as a large, private company, with Polish capital only.

According to the manager's report, the largest group of employees has a secondary education, 20% has a tertiary education (this is primarily executive staff and senior management), and the same percentage of the employees have a primary education (mostly drivers and warehouse staff). The company does a training needs analysis, and what is more, it also utilizes both, job descriptions and competence profiles (for some of the employees). Therefore, during new staff recruitment, it is extremely important to match potential employees with existing job descriptions and profiles. Furthermore, it is essential that a candidate has the necessary experience, is communicative, committed and holds a positive attitude. These features are very important in everyday customer service. Unfortunately, having job descriptions and competence profiles alone, does not contribute to any type of employee performance assessment nor does it give an opportunity for annual evaluation.

The company takes the opportunity to improve the staff's competence mainly through trainings, although the participating group is not that large. According to one of the managers, the best results can be achieved through closed trainings, because "they are tailor-made and we know that they will bring results". Executives, managers, and operational staff are the

ones mostly involved in trainings. Such participation is a form of reward given only to employees with satisfactory results. In the manager's opinion, trainings, to a large extent, translate into an increase in business efficiency, as well as (up to 80 %) an increase in the number of new clients. It is worth mentioning, that the HR Department is responsible for measuring the effectiveness of trainings attended by the employees, by evaluating their newly acquired knowledge. Therefore the best tool for measuring the effectiveness is employee testing.

### **Enterprise- service and commercial sector**

The company has been operating on the market since 1989. It leads in the distribution of watches, electronics and musical instruments in Poland. In addition to wholesale distribution, the company currently has a few dozen corporate stores throughout the country.

It mostly employs individuals with average experience, constituting 75% of all employees. The remaining 25% has a tertiary education. The company conducts training needs analysis annually, so that employee training needs are taken into consideration. In addition, the company performs an employee assessment interview. Thanks to specifically established actions, the objectives for implementation are determined. The company has also introduced specific job descriptions along with competence profiles, which facilitated the recruitment process. New employees should, however, have an appropriate level of competence, so that there is no need for immediate training.

A small percentage (30%) of all workers have recently undergone specialist training. This type of employee competence development has proved to be the most accurate, because one can select the corresponding training, and have them accordingly adjusted. When trainings are completed, the board uses surveys to analyze their effectiveness. This is how it receives the information on any increase in company performance indicators and results. Employee development is also translated into an increase in the number of new customers.

### **Enterprise - service and commercial sector (cosmetics industry)**

The company has been operating on the European market since the seventies, however, in Poland it has been functioning only for the past decade. The business does extremely well on several continents, thanks to a selection of high-class innovative cosmetic products. The company belongs to a group of large, private enterprises, with a 100% involvement of foreign capital.

Company employees have various educational backgrounds. The largest percentage of them has a secondary education (45%), followed by 30% of tertiary education (mostly managers), and just a few with a primary level of schooling, mainly suppliers, warehouse staff and vendors. What may seem surprising, however, is that the company located in Poland does not have competence profiles, does not carry out employee performance assessments, nor allow for an annual employee evaluation. It does though utilize job descriptions and performs training needs analysis. Job descriptions are crucial, as they are taken into account when recruiting new staff. Not as much attention is paid to previously acquired experience, however, it is important that the prospective employee shows creativity.

According to the company's representative, the best form of increasing competence is coaching, because "it allows employee development". Usually, the vendors and management team undergo such forms of trainings. In the opinion of the company's management, trainings do translate into an efficiency increase (up to 60%), but have little influence on business performance or the number of new clients (only 25%). As trainings are not a frequent occurrence, no training effectiveness or performance measures are used. The company does not perform any job position effectiveness measures.

## **Enterprise - service and commercial sector (cleaning and maintenance industry)**

The company provides maintenance and cleaning services, also offering work at heights, hospitality, catering and parking services. This is one of the biggest companies in Poland, with 100% Polish capital. Thanks to having many years of experience, the company offers individual services specially tailored to the needs and requirements of customers. Moreover, all services are delivered in an environmentally friendly manner. Currently, the company employs over 500 people and has a number of branches in various towns in Poland.

40% of the staff has primary education, the same percentage of the employees has a secondary level of education, and only 20% has university degrees and they are mainly the members of the Board of Directors and managers of individual departments. The company does not do an annual evaluation, nor does it have any competence profiles. Instead, there are training needs analyses, the management completes annual employee performance assessments, and specific job descriptions are used. Job descriptions are extremely crucial for the company, since they are based on which the new employees are recruited. Experience plays a less significant role.

According to the management, the best form of employee competency development is specialist training because "it is the most effective". In the past years, 7 to 10% of employees participated in training sessions. Employees undergoing specialized training are usually the board members and the personnel and compensation department staff. According to one of the managers, trainings have the greatest effect on the increased business performance, but little less impact on the increase in the number of new customers or company effectiveness. Once trainings are completed, the measurement of their effectiveness is performed by using a survey method. There is only one person in the company who is responsible for trainings.

## **Summary and conclusion**

Summarizing the results obtained from the case mini studies, it can be concluded that there are certain differences in the approach to personnel policy, especially in the staff training policy, between medium-sized and large enterprises. Large companies often recognize that training contributes to work efficiency increase as a result of developmental activities, essentially understood as activities that will increase the employee competence.

Moreover, large size companies use other forms of competence improvement, rather than just traditional trainings. This includes, in particular, coaching and mentoring.

It should be noted that personnel policy is closely linked to improving staff competence.

In the vast majority of cases, regardless of the size of organization, the Board of Directors is of the opinion that during the recruitment process it is more beneficial to choose a potential employee who does not require immediate competence improvement and can be quickly implemented into his/her job position without additional training.

Specific job descriptions are often used by the companies. According to the data collected, we can speculate that job descriptions do not always correspond to personnel management theory requirements. Instead, a job description is like a charter of responsibilities annexed to the contract of employment. However, at this stage of the research, these are only speculations, but worth future verification.

However, the most frequently used are the training needs analyses, based on which future competence development solutions are created.

Most companies strongly benefit from closed-type trainings, which are tailored to the company's specifics, plus they are very happy to use funds offered by the European Union.

From the data collected we can conclude that on average, 5-10% of employees participate in trainings, especially management staff and sales personnel.

In general this indicator is higher in large companies rather than in medium-sized companies.

Large companies notice an increase in business efficiency thanks to competence raising solutions. Furthermore, such participation has a positive impact, although a bit lower, on business revenue and gaining new clients.

However, according to the management's statement, it can be assumed that the vast majority of companies do not perform any effectiveness of forms raising employee competence analyses. Nonetheless, their observations on efficiency are more intuitive, rather than confirmed by the results of efficiency measures used. The management is not able to indicate whether or not they use any efficiency measures of competence development forms. Even if it seems like they do, they are unable to indicate them. Nor are they familiar with any methods of efficiency measures of forms improving competence used in the references. At this point, it should be noted that the specific percentage values indicated by the respondents, were, however, intuitive. They are based on their impressions and assumptions, rather than on any reliable data. For this reason, the percentage values indicated in this case study (as previously emphasized) are of declaratory and discretionary nature.

Based on the interviews, one can assume that actual effectiveness measures are frequently used; however, companies are often unaware that the tools they use are, in fact effectiveness measures. It should also be noted that these are usually tools consistent with the tools occurring in the first, and sometimes the second, stage of Kirkpatrick's Model. There is no indication of using higher levels of the Kirkpatrick's Model. Other methods were not diagnosed at all. A similar problem arises in the case of the GAP model or the Brinkerhoff's model.

Managers rarely consider professional trainings as having a minimal effect on the efficiency of job positions, business performance or the company itself. On the contrary, they recognize that such trainings directly translate into business overall performance, however, this statement is solely based on their assumptions, unverified through experience. Usually, the information obtained is literally interpreted. For example, if they know that their employees have participated in trainings and shortly after an increase in profit is observed, they recognize these events as being directly related.

It should be emphasized, however, that managers mostly gave very modest opinions. One can assume that this primarily resulted from having insufficient subject knowledge, which is about the efficiency measures of forms raising competence. Moreover, the managers concentrated more on general personnel policy, rather than on the measures analyzed in this research. In addition, sometimes the managers' opinions on the percentage growth in profit, the number of acquired customers, etc., appear to be substantially overstated. Therefore the author suggests that these opinions should be taken only as an indication, because they are not quantifiable data. They are based on the opinion of respondents, and not on reliable financial data.

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