



## E-COACHING - AN EFFICIENT MEASURE OF PROFESSIONAL DEVELOPMENT FOR SCM SOLUTIONS

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**ABSTRACT.** Contemporary supply chains, operating the environment of the global economy, require that development and updating of knowledge, expertise, competences and skills possessed by professionals - logistics managers, keep pace with the development of new concepts, solutions and enabling technologies. At the same time a lot of employees are changing their job profiles, facing new challenges. It is evident that logistics and supply chain management belong to these areas of human activities where a persistent, lifelong education is a must. Traditional ways of training are very often replaced by more sophisticated measures. Coaching, applied both to individual and to teams, is one of the most effective. At the same time rapid development of IT solutions contributes to IT-supported (mainly web-based) distance learning. Numerous examples of successful implementation of e-learning courses now open way to introduction of e-coaching. The paper presents contemporary challenges of supply chains management and the resulting educational needs. Then, based on the introduction of coaching and its technological support, it presents the e-coach idea on the example of Efficient Consumer Response, one of the supply management concepts particularly suitable for implementation of e-coaching.

**Key words:** Supply Chain Management, e-learning, logistics managers.

## SUPPLY CHAIN MANAGEMENT PROBLEMS AND SOLUTIONS

During the last decades, supply chain management has been both an important and a productive aim of corporations. By working to coordinate the production, shipment, and delivery of the goods required to meet their business needs, companies have been able to more easily meet the demands of their customers.

Effective supply chain management solves many of the problems encountered by businesses today. First, the vendors involved in the chain will actually have a clearer idea of what the buyer needs and can then adequately provide for these needs. Slow response times and delays in project start dates also become less frequent because the automated supply chain helps shave the time off of the order placement and fulfilment process. Furthermore, Internet-enabled supply chains generally result in lower costs for all parties involved because when secure relationships are established and when the supply and demand for products is in alignment, the total prices paid by organizations are generally much lower [Lewandowska 2005]. Even though most companies do realize that better supply chain management can benefit their bottom line, too many of them are leery about pursuing modernization and efficiency fully. However, the value exists for companies who wish to make the changes necessary to achieve it.

In terms of supply chain optimization traditional supply chain management is characterized by focusing on independent links that fulfil their own specific task, and seeking for optimization of each link independently. However, this can result in inconsistency when one link adopts a strategy, which conflicts with the strategy adopted by the previous or next link. The results are high logistic costs and low consumer service levels, which eventually can result in less competitive power for every link and thus for the whole chain. Despite the fact that most of the companies are optimizing their links in the chain, practice proves that this is not sufficient. The market is becoming more dynamical and that also counts for relationships with suppliers and consumers. Therefore modern companies must also have an eye for logistic developments outside the walls of their own company. This is where Efficient Consumer Response (ECR) plays an important part.

Efficient Consumer Response is a global movement in the consumer goods industry. The ECR Europe Executive Board expresses the ECR vision as: "working together to fulfil consumer wishes better, faster and at less cost". ECR is thus a realization of a simple, fast and consumer driven system, in which all links of the logistic chain work together, in order to satisfy consumer needs with the lowest possible cost. ECR has a few starting points. Firstly the definition shows that consumer demand plays an important part. The chain has to ensure continual improvement of consumer satisfaction, products, and quality. Secondly, the definition also shows that maximum efficiency of the total logistic chain is required. The realization of the two starting points cannot be done without accurate information, which must be available when needed. To keep the costs low, it is preferred that this information and communication is paperless. [Lewandowska 2006].

To implement and run this concept in practice well-trained personnel are needed closely collaborating throughout the entire supply chain. Taking into account these strong needs for education and training on SCM issues at different levels, sophisticated modules and courses for both training-on-the-job and initial professional education are required. Due to the fact that nowadays supply chains in nearly all sectors are of European or even global nature, these education and training programmes need to be organised and offered across Europe. The easiest and best way to cope with these different requirements seems to be an e-learning (self-learning) approach. Here, rapidly developing information and communication technology provides an ever-increasing variety of e-learning scenarios.

But although a lot is already available, e-learning is not yet a common scenario in logistics and supply chain management education and training - neither in an academic nor business setting. This is mainly caused by the way how those offers were designed: standard learning patterns were implemented; modern pedagogical concepts were poorly taken into consideration; special challenges of problem-based logistics learning were hardly ever addressed. Even lifelong learning is merely a frequently used buzzword; suitable learning offers, methods and tools supporting it are still rare. In addition to this, technical basis and available IT infrastructure vary considerably across Europe. Whereas situation in some countries meets very high technical standards not just at universities or in companies, but in private households as well, in some other countries conditions are still characterized by many limitations, for example poor telecommunication infrastructure, high costs of internet access and low availability of funds on IT. As a result, in these countries only a few academic centres and other educational institutions are offering pilot programs of e-learning courses.

In order to overcome these limitations and to provide wide-area support for logistics and supply chain management education rapidly changing technology needs to be subject of ongoing research and development in learning content and goal definition as well as logistics pedagogy. For this, ECR has been adopted as an exemplary area where the idea of e-coaching can be developed and implemented.

## **FROM TEACHING TO COACHING**

Learning in general is about the acquisition of knowledge or skills. The purpose of acquiring knowledge on one hand and skills on the other differs [Pahl 2004]:

- Knowledge acquisition refers to declarative knowledge, i.e. facts. The objective of the learner is to be able to reason about knowledge. The style of learning is often classical studying, usually referred to by the term learning.
- Skills acquisition denotes to procedural knowledge, i.e. instructions. The objective of the learner is to be able to perform instructions and procedures. The style of learning is often training.

Jonassen (1991) distinguishes three stages of knowledge acquisition (see Figure 1). In initial knowledge acquisition the learners study individually with materials that are goal-based (i.e. learners can study to meet clear goals) and structured in small steps (i.e. contents are divided into steps and indexed to allow step-by-step learning to beginners and selective learning to more advanced learners). At the level of advanced knowledge acquisition, instructors have difficulties in structuring the contents, so situated learning is recommended. The learners should be given the work and challenged to use the skills from the initial knowledge acquisition stage while proceeding. For being able to assist the learners in this way of knowledge acquisition teaching assistants or more advanced students acting as supporters in the learning process of course need to have acquired the respective knowledge beforehand.

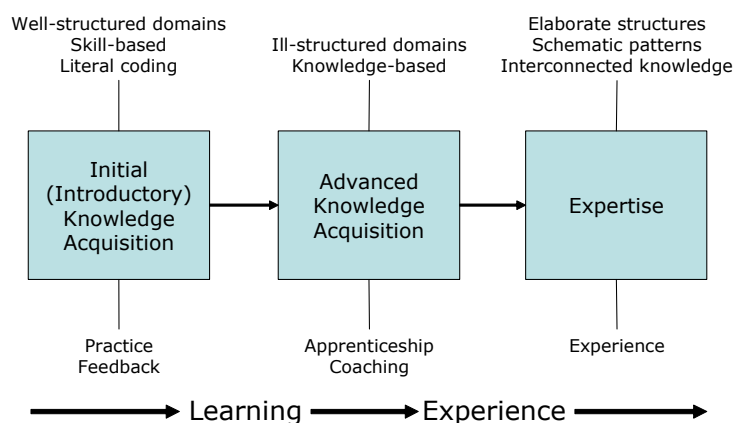


Fig. 1. Three stages of knowledge acquisition [Jonassen 1991]

Rys. 1. Trzy etapy opanowywania wiedzy [Jonassen 1991]

From the didactics point of view this training support needs to be based upon a constructivist design, which assumes that in principle knowledge cannot be imparted by a teacher or trainer, but results from self-constructing ideas and concepts by the learner or trainee. The trainer supports this process by providing hints and feedback; his/her role changes from being a teacher towards acting as a coach. The task of such coach consists in non-directive questioning and helping coachees to analyse and address their own challenges rather than offering advice or direction.

Through coaching meta-level information capturing a master's advice and feedback regarding knowledge, activity, and other learning actions is communicated. The pedagogical framework for this is formulated by the cognitive apprenticeship theory [Collins et al. 1989]: in general an apprentice is a learner who is coached by a master to perform a specific task. Based on this, the theory transfers the traditional apprenticeship model as known from crafts, trade and industry to the cognitive domain. More precise, cognitive apprenticeship aims at externalising processes that are usually carried out internally. This approach works with methods like modelling, coaching, scaffolding, articulation, reflection and exploration.

Against this background coaching is to be understood as helping a person in actively creating and successfully passing individual learning processes through guidance-on-demand [Neumann 2006]. It is a highly focused process that unlocks potential and maximizes performance at both the individual and organizational levels. It helps people gain clarity, remove self-imposed limitations and increase their

self-reliance, so they can better leverage their strengths and help others to do the same. Coaching helps individuals to develop critical insight, bringing a new sense of purpose to their actions. It helps them to see where they are, where they want to go to, and how to get there. It stirs them to contribute more. Coaching is a formal system that results in positive, lasting change.

## TECHNOLOGICAL SUPPORT OF COACHING IN PROFESSIONAL TRAINING

There have been many terms to describe the use of technology for learning, but most are either antiquated or no longer appropriate for a digital world. Nowadays, e-learning is the term used to describe web-based learning scenarios enabling anyone to learn anywhere at anytime. It refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance [Rosenberg 2001].

In contrast to e-learning, e-coaching is coaching delivered over an electronic medium, i.e. the master's role of the apprenticeship model as described in the previous section is replaced, for example, by an intelligent agent. It focuses on the same goals as regular coaching. A coach's goal would be to facilitate client growth and potential by assisting them in identifying needs, developing goals, building strategies to meet these goals, and providing support and encouragement in order to ensure these goals may be met. E-learning by itself addresses more the use of technology for teaching, where e-coaching has the power to represent a 'teacher' in the process.

Consequently, coaching systems differ from instructional (e-learning) systems that only present subject matter (domain knowledge) and that only check whether the student has understood the presented material. Coaching systems are computer programs that provide an environment for learners to acquire skills in applying domain knowledge and that assess and correct learners in their performance. In a coaching system the coachee performs a task and the system (the e-coach) interprets the performance of a student, i.e. it monitors discrepancies between intended results and actual results. If a discrepancy is identified this is viewed as an error or inefficiency, a deviation from what should be the case. Errors are assumed to have causes, and the identification of causes of errors is called diagnosis. The functional components distinguished are:

- An environment to enable the task to be learned or trained;
- A monitoring component to observe and interpret the student's behaviour while s/he is performing the task and to identify that there is a deviation;
- A diagnoser to identify the cause of the deviation;
- A coach to assist and instruct the student;
- A student model.

Muntjewerff and DeTombe [2004] describe the example of an e-coaching system called e-See - an instructional environment for training an essential part of legal problem solving: the construction of a case description involving the selection and ascertaining of facts from a real life dispute. In e-See the student is facilitated and encouraged to work in a systematic way, the chances to miss or leave something out are nil, the student does not have to manage his or her information and s/he does not have to keep track since the coach takes care of this. Furthermore, a distinction is made between the environment and the coach. The environment defines or instantiates some problem or goal to be achieved and specifies (makes explicit) the conditions (situation) in which the problem is to be solved or this goal is to be achieved. The coach focuses on the learning or training of the skill to be acquired. It may vary on task performance that is required or allowed and, related, on the tutorial style from constrained to totally free. In the constrained setting there is an explicit setting of the task. This task is differentiated into a task-directed problem or exercise, the goal is stated and the sub-tasks that have to be carried out are traced. In the more free setting a situation only is presented to the student and the coaching system asks him or her to explore the environment on the basis of this situation without explicitly setting a task. The coach either appearing in the form of textual feedback and hints or as

a pedagogical agent embedded in the environment provides support in two different types: support on demand and immediate feedback.

Pre-condition is the application of constructivism and implementation of the cognitive apprenticeship model in a coaching system. Those coaching systems may differ in three main factors: (i) the degree of similarity of the environment presented to train or learn the task in comparison with the real environment; (ii) the degree of freedom the student has in performing the task; (iii) the degree to which a coaching system is able to 'understand' what the student is doing and what his/her results mean. Here, it is the main task of the coach to encourage and support individual knowledge construction processes with the learner, but not really to control them. More precisely, a coach should be responsible for activating the learner, initiate a (natural and individual) learning process, and create meta-cognition and tolerance with regard to other perspectives [Holzinger 2001]. Furthermore, the coach (i.e. the expert or a system) offers support in case of difficulties (i.e. scaffolding), provides hints, feedback and recommendations, and eventually takes over certain steps for solving the given problem. However, the coach only appears when explicitly being called by the learner (i.e. like a help system) and the scaffolding is gradually fading as the learner proceeds. So, coaching aims to develop heuristic strategies through establishing a culture of expertise and with this goes far beyond pure e-learning as typically provided in virtual learning environments.

## **THE IDEA AND VISION OF AN SCM E-COACH ON THE EXAMPLE OF THE ECR CONCEPT**

Taking into consideration both aspects, i.e. the need for training support on the implementation and execution of the ECR concept as well as the chance a coaching approach and especially e-coaching offers, implementation of ECR strategies in Poland and Germany was supposed to be supported by providing an e-coach for understanding and implementing ECR [ Neumann et al. 2006]. This ECR e-coach will be a unique supporter for the gaining, training and application of ECR knowledge and competence. For this, it is based upon high-quality multimedia learning material, interactive assessment procedures and a library of terms and methods, examples and best practices, and guidelines for efficiently, effectively and successfully implementing ECR strategies into supply chains. These elements are composed to form attractive e-learning modules on the ECR topic in English, German and Polish languages. Due to their well-structured design they can be built in the learning management system of local preference (i.e. Lotus Learning Space, WebCT, Moodle, etc.) to meet specific needs of the different target groups of both university students (undergraduates as well as postgraduates) and logistics professionals (training-on-the-job). Introduction of the e-coach into traditional education and training programmes will enable to apply a blended learning methodology for the specific target group and learning content.

But the e-coach is not just a framework for delivering learning material and accompanying learning processes. It also provides additional coaching functionality for the pre-learning process assisting the user in identifying both his/her individual learning needs and the subject matter or context they are settled in. With this, special focus is put on increasing the active role of a learner in the learning process and especially his/her responsibility for the design and success of the learning. Instead of learning what a teacher has decided to be learned, the learner is supported in understanding what the practical problem is s/he might have and which knowledge on theories, methods, procedures, best practices etc. might be of help to deal with the problem and finally solve it. This specifies the subject area and topics to be mastered. Furthermore, and even if an experienced practitioner would be able to self-identify the context of a problem him/herself, in a second step the e-coach requires and supports self-reflection of own knowledge and competence in these fields. In the end, a learning process is created that is tailor-made to the individual needs of the learner and customized for his/her personal level of understanding and competence.

This methodological support describes the difference between the coaching and a teaching/training approach. Using information and communication technologies as well as intelligent case-based

reasoning in this process allows decoupling human coaches from somehow being permanently on call. Thus, the ECR e-coach will be a personal coach available anywhere and anytime to react on individual needs for support. With this the e-coach goes far beyond what is already available across Europe to support ECR-related training, e.g. under the framework of the ECR Europe General Learning Programme [Penning and Karli 2004] which currently comprises a variety of traditional class-room based courses and seminars (<http://www.ecrnet.org>) only. Consequently, a learner is required to be on-the-spot for participating in the workshops and gain condensed knowledge on a certain aspect of ECR. The ECR e-coach will of course not replace those offers in total, but it is to be understood as an additional opportunity to refresh or extend knowledge directly in the context of a specific problem s/he has to deal with in his/her professional environment (training-on-the-job). Furthermore, it will allow university students to get in touch with ECR-related topics even when their home universities do not offer special courses on ECR or just mention this concept within supply chain education of different focus.

## HOW THE ECR E-COACH IS SUPPOSED TO WORK

Corresponding to the nature of ECR as being based on knowledge from different fields and dealing with various and diverse problems the ECR e-coach implements a matrix approach reflecting these two main basic perspectives. First of all, the e-coach should help the coachee to identify his/her individual needs:

- developing knowledge and skills in a certain ECR-related area heading to better performance in and ability of problem solving, or
- tackling a just encountered specific problem in the company or supply chain collaboration as a primary task.

These two reasons for accessing (taking advantage of) the e-coach may be interlinked and therefore may intertwine in the course of the coaching and learning process. The final result - in terms of gained knowledge and skills as well as an ability to identify and solve a problem - can be the same, but the stresses will be put in different ways. Taking this into consideration the ECR e-coach needs to consist of two functional components: a diagnosis system and a learning environment.

A well structured and comprehensive diagnosis system forms the key part for starting the learning process (see Figure 2). As already explained above it helps in identifying and specifying individual learning needs and thus in initiating and self-creating a personalized learning process. For this, the diagnosis system is composed of different types of testing tools leading - in an automatic way - to the following conclusions:

- Which problem in supply chain management do I have to deal with, when observing particular symptoms in my own company or supply chain?
- What is the particular field of knowledge - the learning context - my personal interests/needs are settled down in?
- What is my specific learning goal: gaining knowledge or solving a problem?
- What is my initial state of knowledge or competence level regarding my personal learning context and goal?

Depending on the outcomes of the diagnosis process the coached person is guided on either a knowledge-oriented or rather a problem-oriented path of learning modules matching with his/her learning context and level (see Figure 3). As shown in Figure 2, a knowledge-oriented path (A) focuses on a particular aspect or subject area of ECR and allows gaining relatively wide-area knowledge in this field (but perhaps at varying levels of detail). Following such a path also helps to answer questions like:

- Which are the problems this particular knowledge is relevant for?

- If I go through those modules which kind of problems I can better deal with afterwards?

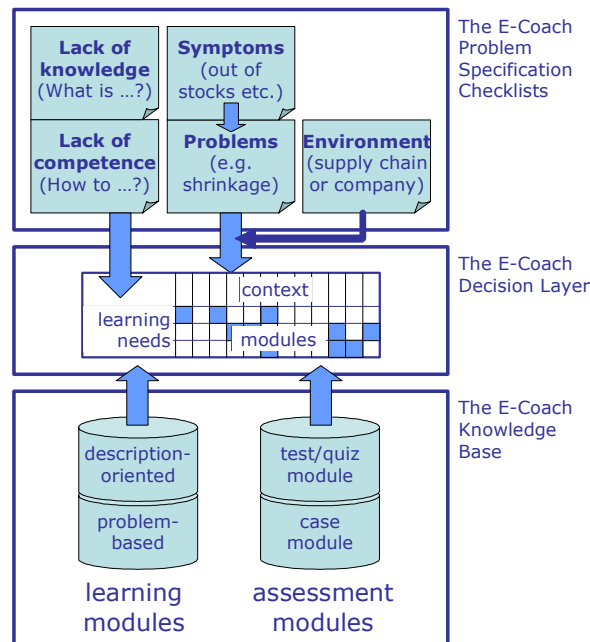


Fig. 2. The ECR e-coach structure  
 Rys. 2. Struktura e-kształcenie w obszarze ECR

This way, any knowledge-oriented path also contributes to strengthen problem-solving competence related to the implementation of ECR in a supply chain. In difference to this a problem-oriented path (B) clearly aims at developing much more specific problem-solving competence by providing instructions and methodical knowledge on how to solve a particular problem. It especially helps to answer questions like:

- Knowledge from which fields might be of help to solve my particular problem?
- In which directions I might think to find a solution to my particular problem?

In the end, those modules which might belong to a particular path corresponding to the individual needs are identified each of them dealing with certain aspects of understanding and implementing Efficient Consumer Response in supply chains. Step (C) in the diagnosis process then decides about what a user should be recommended:

- Am I able to solve a respective problem related to the identified aspect of ECR? => If so, we, for example, might propose to go for examination of knowledge or certification of competence.
- Do I need to know more about this particular aspect of ECR? => If so, we would initiate a learning process and propose a learning path for this, which is offered and guided-on-demand by the e-coach's learning environment.

The learning environment of the ECR e-coach is formed by a learning management system with a number of modules as well as a wide range of information and communication tools embedded in it. To ensure functionality as described above the modules belong to the following main categories:

- Description-oriented modules deliver knowledge on a specific aspect of ECR such as shrinkage or RFID technology (What is ...?).
- Problem-based modules provide relevant knowledge for identifying, specifying and solving a particular problem, like shrinkage reduction or application of RFID technology in supply chains (How to ...?).

- Assessment modules enable individual knowledge application and evaluation within tests/quizzes at different levels of difficulty with extended feedback being provided to the user.
- A case study module supports free knowledge application within an interactive supply chain scenario by running case studies at four levels of difficulty.

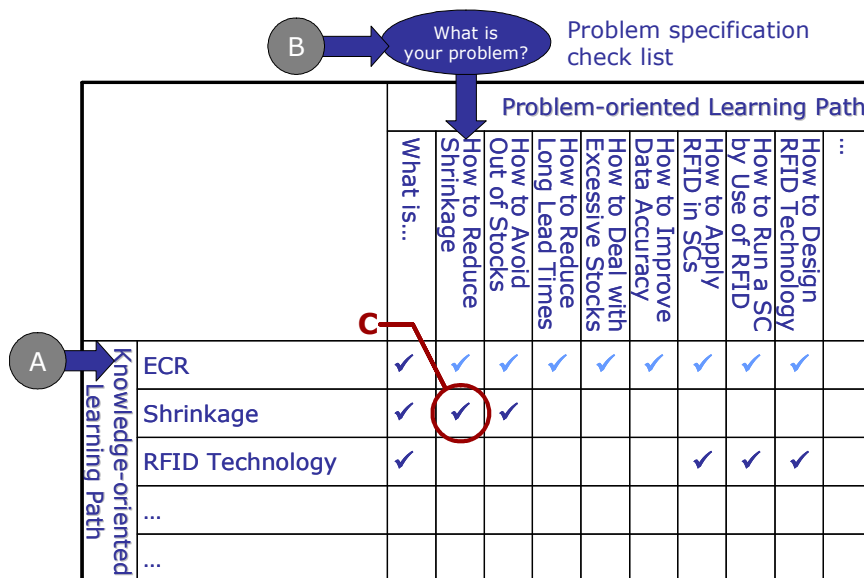


Fig. 3. How the ECR e-coach works  
 Rys. 3. Jak działa e-kształcenie w obszarze ECR

With this, customization and individualisation of a user's learning process and learning path according to his/her needs (resulting from current skills and knowledge level as well as the required target competences) become possible by purposefully selecting the suitable modules.

A similar amount of flexibility and sensitivity to user needs will also be provided by the diagnosis system. Generally, the diagnosis process (which from the practical point of view can be based on a kind of a questionnaire or even check list) will dynamically self-adapt to the user in the course of responding to the questions depending on the answers given. This means there are no fixed standard set and sequence of questions to be answered, but a step-by-step selection and presentation of questions following the authoring-on-the-fly principle instead. In some case also some additional or even "double check" questions may be asked. It is obvious that in the case where rather problem-oriented needs have been identified the questioning process will be longer and more sophisticated to get the right picture on the exact nature and complexity of the problem and to configure the most appropriate path through the matrix of modules and/or their particular components. In practice the outcome of this pre-learning and identification process will be a set of tags set along the learning path defining subsequent steps and measures checking and testing achieved results and thus verifying originally defined learning paths. This eventually can lead to a dynamic reconfiguration of the learning path; the procedure for this is included in the e-coach as well. Furthermore, the results of the intermediate tests will be used not only for reconfiguration, but also for repeating a certain module or suggesting/initiating additional learning loops.

This general approach determines the ECR e-coach functionality. As it has been said, the most characteristic feature of the presented concept is its matrix structure (as depicted in Figures 2 and 3). With this, it supports both, the knowledge- and the problem-oriented approach within a customizable procedure. The crucial challenge for bringing the e-coach concept to life consists in implementing its matrix-based coaching functionality:

- Structure and sub-structure knowledge on ECR-related aspects and problems in modules.
- Define all relevant links between particular modules.
- Develop a reliable diagnostic system helping a user to identify his/her weak points and suggest suitable modules.

## SUMMARY AND CONCLUSIONS

The nature of contemporary economy characterised by global sourcing and markets causes that supply chains and logistics networks play a more and more important role. Effective supply chain management has become a critical factor in the successful delivery of goods to the customers. There are many concepts and solutions well developed and known on the theoretical level which - if and when successfully and fully implemented - might significantly improve the performance of companies involved in the process, thus helping all of them (as supply chain links) compete on the market. Furthermore there are enabling technologies available, with ICT being the most important one, which make implementation of these concepts realistic and feasible. So, why there are so relatively few examples of best practices in SCM, why implementations are partial, limited to selected elements of new concepts and strategies? Why, even a seemingly successful ECR concept faces a number of problems and obstacles when it comes to full, practical implementation? It seems that these failures or at least limited success rates result from the lack of awareness as well as skills and competences with employees (both on managerial and operational levels), responsible for successful implementation and efficient performance of particular SCM concepts and solutions.

It is widely recognised that life-long learning becomes a must in the contemporary world, especially where technology is a driving force. A number of various courses, training sessions, studies and workshops are being offered nowadays to companies covering both: job-related and soft skills. At the same time new educational concepts for professionals are developed and offered to employers and employees. One of them is coaching which consists in configuring individual training and even educational paths - for individuals and groups of employees - based on recognised gaps in knowledge, skills and competences indicating individual educational needs. It is evident that applying the pedagogical principle of coaching to the supply chain field can be a very efficient way to significantly improve competencies.

But it is also evident that in many branches it is extremely hard for employees to attend regular courses, which usually require time devotion, travelling, and means - i.e. in general temporary quitting of one's professional duties. This applies to logisticians as well and is particularly troublesome, thus in some instances - especially in case of small enterprises - simply unacceptable. The idea of distant learning comes here as a good alternative to traditional means of education. Nowadays "distant learning" is supported by ICT solutions and internet (web-based) education has been arousing higher and higher interest for some time. Numerous e-courses offered by many training centres and universities are available in Europe these days - also in the field of logistics and supply chain management. E-coaching seems to be the next logical step in the process of educational transformation.

The concept of an e-coach presented in this paper gives a general idea on how such tool could be designed. Efficient Consumer Response - an SCM concept, which seems exceptionally interesting as a subject for testing the e-coach approach - has been selected by the authors for more detailed presentation on how such an SCM e-coach might work. The presented concept seems realistic and feasible; its starting point should be a set of modules: description-oriented, problem based and assessment-focused ones, ready to be interlined in the e-coach matrix system.

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## E-COACHING - SKUTECZNE WSPARCIE ROZWOJU ZAWODOWEGO W OBSZARZE ZARZĄDZANIA ŁAŃCUCHEM DOSTAW

**STRESZCZENIE.** Nowoczesne łańcuchy dostaw, działające w gospodarce globalnej, wymagają ciągłego uaktualniania wiedzy, doświadczenia i umiejętności pracowników - menadżerów logistyki w zakresie rozwoju nowych koncepcji, rozwiązań i możliwych do zastosowania technologii. Jednocześnie wielu pracowników zmienia profil zawodowy, podejmując nowe wyzwania. Jest oczywiste, że zarządzanie łańcuchem dostaw to jeden z obszarów, gdzie konieczne jest stałe aktualizowanie wiedzy przez cały okres pracy zawodowej. Tradycyjne metody nauki są zastępowane przez bardziej nowoczesne. Coaching, zarówno w przypadku poszczególnych osób, jak i grup, jest jedną z najbardziej efektywnych. Jednocześnie szybki rozwój technologii informatycznych przyczynia się do rozpowszechniania opartego na rozwiązaniach internetowych nauczania na odległość. Wiele przykładów pomyślnego wdrożenia tej techniki kształcenia otwiera drogę do wprowadzania e-coachingu. Artykuł prezentuje aktualne wyzwania stawiane zarządzaniu łańcuchem dostaw i wynikające z nich potrzeby edukacyjne. Następnie, opierając się na zaprezentowanych na wstępie zasad coachingu i jego technicznego wsparcia, przedstawia ideę kształcenia metodą e-coach na przykładzie koncepcji ECR, ponieważ wydaje się ona szczególnie interesująca z punktu widzenia zastosowania tej formy kształcenia.

**Słowa kluczowe:** zarządzanie łańcuchem dostaw, nauczanie na odległość, menedżerowie logistyki.

## **E-COACHING - EINE EFFIZIENTE MAßNAHME FÜR DIE MITARBEITERENTWICKLUNG IM SUPPLY CHAIN MANAGEMENT**

**ZUSAMMENFASSUNG.** Moderne Supply Chains in einer globalen Wirtschaft machen es erforderlich, Wissen, Fachkenntnisse, Kompetenzen und Fähigkeiten der Logistikmanager im Gleichschritt mit der Entwicklung immer neuer Konzepte, Lösungen und unterstützender Technologien herauszubilden und zu aktualisieren. Gleichzeitig verändern sich für viele Mitarbeiter die Tätigkeitsfelder; sie sehen sich neuen Herausforderungen gegenübergestellt. Es ist offensichtlich, dass Logistik und Supply Chain Management damit zu den Bereichen menschlicher Aktivität gehören, in denen fortgesetztes lebenslanges Lernen ein Muss ist. Die traditionelle Weiterbildung wird dabei sehr häufig durch anspruchsvollere Maßnahmen ersetzt, unter denen das Coaching sowohl des Einzelnen als auch eines Teams eine der wirksamsten darstellt. Die rapide Weiterentwicklung der IT-Lösungen ermöglicht mehr und mehr IT-gestütztes (zumeist web-basiertes) Fernlernen; die Vielzahl erfolgreicher E-Learning-Implementationen öffnet den Weg zur Einführung des E-Coaching.

Der Beitrag präsentiert aktuelle Herausforderungen an das Supply Chain Management und die daraus resultierenden Aus- und Weiterbildungsbedürfnisse. Nach einer Einführung in das Coaching und seine technische Unterstützung wird die Idee eines E-Coaches für das Gebiet des Efficient Consumer Response exemplarisch vorgestellt, da dieses Konzept des Supply Chain Management als besonders geeignet für die Umsetzung des E-Coaching-Ansatzes anzusehen ist.

**Codewörter:** Supply Chain Management, E-learning, Logistikmanager.

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