

Improving Education and Training Impact on Competitive Advantages of SMEs

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Abstract: *Small and medium sized enterprises (SMEs) are important in all economies in the world and in assuring employment. They are not „microcosms „of larger ones so previous research on large firms is often inappropriate for them. Due also to limited resources, daily pressure and other factors, human resources (HR) practices in SMEs are often unplanned and reactive, followed by informal and on the job training which do not sufficiently contribute to SMEs competitiveness.*

Another problem referring is that due to the increasing of levels of immigration in Europe and an expanding European Union, they have to adapt to operate with a heterogeneous workforce and this requires adequate measures and approaches but brings also competitive advantages.

The paper presents some approaches to improve the impact of education and training for SME competitiveness. The hypothesis is supported by literature and/or project results coordinated or worked by author

Keywords: *SME, training, learning, mentoring, competitiveness*

1. INTRODUCTION

Porter [1] explains that having competitive advantages for a firm means to differentiate itself in the market place, to generate more revenues and operates at lower costs than competitors. It requires creating new products and processes by using advantages of new technologies and being able to commercialize the products efficiently. Research studies and application projects underline the key role of innovation and particularly of human resource (HR) in competitiveness, the last one having a role as a business function and as being a repository of knowledge and skills.

The way people are educated and trained can be modelled to create competitive advantages in a way that it is difficult for competitors to copy this. Training is a conventional method for firms to prepare staff with necessary skills for daily tasks but this preparation process should start during the vocational educational one.

Another problem referring HR is that due to the increasing of levels of immigration in Europe and an expanding European Union, all companies have to adapt to operate with a heterogeneous workforce. This requires adequate measures and approaches but brings also competitive advantages.

It is known that the importance of small and medium sized companies (SMEs) has been debated within the literature and a continuing increase in importance of these firms has been noted [2]. SMEs are not „microcosms“of larger ones [3] so previous research on large firms is often inappropriate; particularly small firms, are dependent on a single manager, are less flexible and do not employ a specialist for human resources development and training. HR practices in SMEs are often unplanned and reactive, followed by informal and on the job training [4]. Training in SMEs is a diffuse process, managers sometimes failed to engage in training themselves not understanding its importance for firm competitiveness and this aspect has to be improved.

Referring immigration and skill shortage of SMEs, they should understand that they have also to operate with culturally diverse employees like big companies in order to solve such problems and

the methods they use to assist the socialization and integration of such people play an important role of the firm competitiveness.

The paper presents some approaches to improve the impact of education and training for SME competitiveness. The hypothesis is supported by literature and/or project results coordinated or worked by author.

2. EDUCATION AND TRAINING IMPACT POSITIVELY FIRM'S COMPETITIVENESS

It is known that education (theoretical and more and practical oriented) and the preparation of staff, particularly new ones, with necessary and relevant knowledge and skills for daily operational activities and possible future ones improve business and create competitive advantages [5], [6], [7]. "The only thing that gives competitive advantages to an organization is what it knows, how it uses that knowledge and how fast it can learn something new". That means organizations should develop a strategy of learning integrated in their work and business environments and giving support just in time" [8]

Mullin [9], the Bosch Rexroth's personnel manager stated that "training leads to competent and motivated employees who in turn lead to fewer problems in the production and content clients. Maurer [10] underlined that "enhanced employee performance through training has always been recognized as an important means of securing the competitive advantage".

Business failures in SMEs could be removed or reduced by the provision of efficient training, skills and competences of employees which is an important factor in SME organizational success [11]. However, training budgets are often the first reduced or removed when a SMES has financial difficulties. It happens also because owner/managers of SMEs have not enough knowledge about the value of adequate training for firm competitiveness.

Picture 1 shows some important variables reported in the literature contributing to a better understanding of the role of training and education for SMEs in order to compete nowadays.

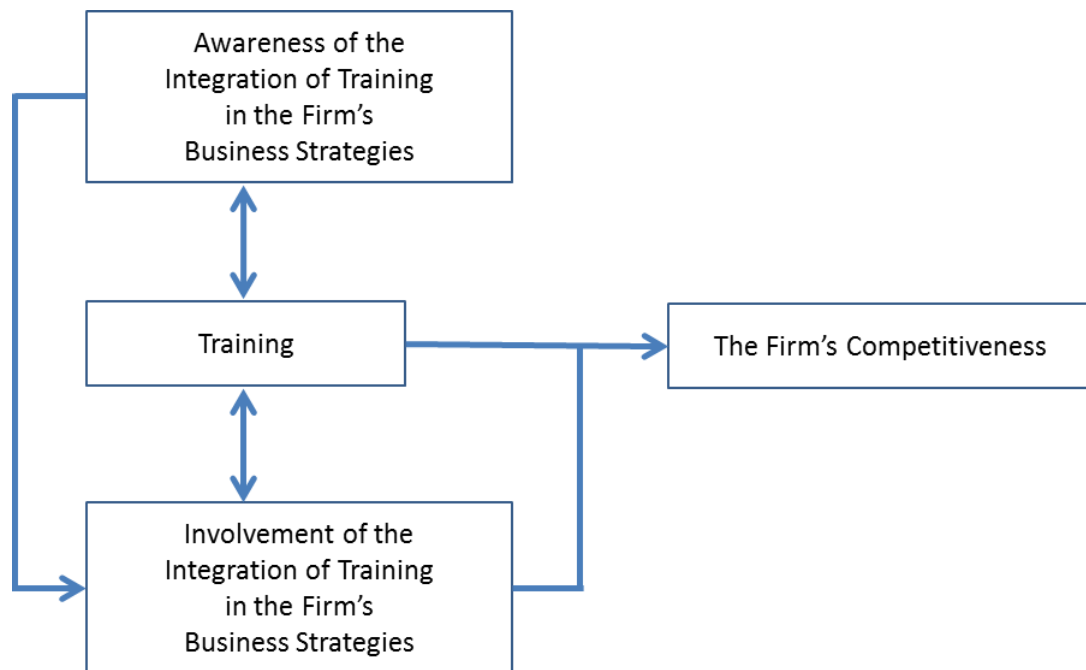


Fig1. Variables for training – Source: Sum (2010)

Another problem is that technology should be a support for learning. Laugesen et al. [12] underline that many training offerings are very technical by nature and not relevant to the business needs of the organization; in addition, they highlighted that many education providers lag behind the technology, developing courses some years after the technology has been introduced. Together with a correct introduction of new technologies it is important

that skills development in SMEs is conducted simultaneously with technological development by organizing corresponding training.

3. INFORMAL AND SOCIAL LEARNING

Informal learning describes a lifelong process whereby individuals acquire attitudes, values, skills and knowledge from daily experience and the educational influences and resources in his or her environment, from family and neighbors, from work and play, from the market place, the library and the mass media [13].

Jay Cross is “a champion of informal learning and systems thinking” (www.jaycross.com/). Jay's calling is to help people to improve their performance on the job and their satisfaction in life. His philosophies on the power of informal learning and network have fundamentally changed the world of learning in organizations [14].

Companies can use informal learning combined with other forms to:

- Increase sales by making product knowledge instantly searchable
- Improve knowledge worker productivity
- Transform an organization from near-bankruptcy to record profits
- Generate fresh ideas and increase innovation
- Reduce stress, absenteeism, and health care costs
- Invest development resources where they will have the most impact
- Increase professionalism and professional growth
- Cut costs and improve responsiveness with self-service learning
- Informal learning accounts for over 75% of the learning taking place in organizations today.

In the process of social learning [15] supported by social services like blogs, picture-sharing, wall-postings, email, instant messaging which can be integrated via social network aggregation platforms people can gather information, ideas, new context from people across the globe and around the clock as easily as they could.

The technical skills needed to such services are rather low.

Informal/social learning means a major revolution which demands a shift in thinking, unlearning and relearning of traditional notions:

- learning style
- course design (formal learning blended with the right mix of informal and social learning)

More people who were born after 1980 get into the work world [16], and this generation lives social so that it is expected that social learning initiatives will become more and more common place. But the integrating of new strategies for this informal/social age which supports work tasks in companies demands new competences for designer, skills, attitudes like the following (learningindustry.com/top-9-competencies-of-an-informal-social-learning-designer):

3.1. Knowledge

- Knowledge of the instructional approaches, tools, systems, and processes required for designing and developing effective informal/social learning content
- Knowledge of the different models that advocate informal and social learning in workplaces (such as the ‘70:20:10 Model’ and the ‘3-33 Pervasive Learning Model’)
- Knowledge of the approaches to strategically integrate all forms (formal, informal, and social) of learning in the right way
- Knowledge of successful informal/social learning implementations around the world
- Knowledge of today’s trends, research initiatives and experiments happening in the field of informal/social learning

3.2. Skills

- Ability to analyze a business situation and the learning context, and recommend appropriate informal/social learning solutions to address them
- Skills to design, develop, and deliver effective informal/social learning applications that can meet business objectives

3.3. Attitude

- Passion for learning and improvement in the areas of instructional design and informal/social learning, and all related fields
- Appreciation of the power and effectiveness of informal/social learning over the traditional mode (formal) of learning

Formal and informal learning, informal networking and social initiatives should be used to build change in the workplace and changing behaviors. Social learning requires also social learning policies.

4. MENTORING, A POWERFUL APPROACH TO SUPPORT PERFORMANCE AND KNOWLEDGE TRANSFER

The use of mentoring as a method of learning dates back to ancient Greek times. To this day it is still used at an informal and formal level within human resources development processes. An existing member of staff or an external collaborator guide newcomers or less-experienced people in a task to develop professional skills, attitudes and competencies [17]. Also, people with special needs can be helped by mentoring to integrate into work life [18]. Mentoring is a key process for knowledge management. New perspectives and learning about areas of the organization that was unknown previously can also help the mentee to become a recognized and accepted member of the community, by passing on corporate vision and values and improving his grasp of corporate networking (<http://www.knowledge-management-tools.net/mentoring.html>).

Both mentors and mentees benefit from mentoring particularly in diverse matches. The mentors can gain a new perspective about the culture of the organization. Seniors who serve as mentors affirm that the mentoring relationship has revitalized them and their careers.

Mentees have the opportunity:

- To meet with a trusted person who will enable their entry into the workplace quickly and help them to cope with initial problems
- To discuss and resolve emerging and genuine job-related problems regarding individual's needs
- To learn how to set realistic goals and achieve them
- To enhance their skills and consequently their future career opportunities and prospects
- To build relationships and interactions to enable them to them to secure, maintain and advance in the job by choosing a way that corresponds to the work routines and social actions of other employees
- To receive and lend natural support and be linked to existing social supports in the work environment.

There is a broad range of mentoring relationships, which can be used in companies ranging from informal or spontaneous mentoring to highly structure and planned mentoring.

The goal of mentoring staff from SMEs is to improve job performance by increasing employees' capability to manage their own performance, emphasizing trust, experience, and supervision, to facilitate performance in the organization, to support retention and leadership development.

Successful mentoring creates trust relationships and the opportunity for positive behavior that is particularly beneficial for companies wishing to promote diversity

5. INTEGRATING DIVERSITY AND MENTORING TO SUPPLEMENT TRAINING

In Europe and elsewhere, due to internationalization, the understanding of Diversity approach to the achieving of intercultural competence in social and employment settings, has become more and more essential, e.g., in a multicultural work place team, in organizations and policy developments, or abroad for international and foreign markets.

The German Society of Diversity Management (DGDM), has defined diversity as a mixture of a multitude of features present or not, alike or non-alike, differing in features, relations, behaviors, talents, experiences, emotional settings, health conditions, processes, functions, tasks, responsibilities, and static or dynamic dominant dimensions. In addition, personal features such as gender, age, skin-color, ethnicity, sexual orientation, religious beliefs, disability, education or professional qualification, and experience, have to be considered.

Loden and Rosner [19] have classified diversity in terms of more than 20 characteristics and with regard to four main contexts or levels of classification, as follows:

1. Personality and character,
2. Inherent dimensions e.g., age, gender etc.,
3. External dimensions e.g., family status, area of living, income etc., and
4. Organizational dimensions e.g., like work place organization and process necessities etc.

A benefit of a diverse workforce is the ability to tap into many talents which employees from different backgrounds, perspectives, abilities and disabilities bring to the workplace and this add value to competitiveness. Many companies however face challenges to build a diverse environment suitable to their business or to integrate a diversity approach in their business strategy. One method is when exploring ways to increase corporate profits, look how a diverse workforce enables the company to meet these goals. Practical training aiming diversity should be offered i.e. teaching small groups of people how to solve conflicts and value diverse opinions and these will be more efficient than large, abstract diversity lectures. Main objectives of valuing diversity include awareness, education and positive recognition of the differences among people in the workforce.

Mentoring allows people to take the issues learned in diversity training into the workplace.

Involving company's managers in a mentoring program to coach and provide feedback to employees who are different from them is another approach to integrate diversity.

Many companies offer diversity initiatives to encourage collaboration und understanding but most diversity initiatives do not go far enough to promote real diversity and improve firm's competitiveness. Particularly within SMEs such initiatives are missing.

6. EXAMPLES

The project Net Knowing 2.0 aimed at improving the impact of education, training and KM in SMEs in order to be competitive. Within the project Net Knowing 2.0 on the one hand discussions have been organised in VET institutions and SMEs to improve the training by more use of informal, social learning and Web and to introduce business mentoring to help staff. In Germany it has been discussed that potential learning consultants can be trained to act as mentors. Other companies involved decided to use a mentor from the company for a new staff acting as mentee. Another problem discussed within the SMEs was to improve diversity approaches they use. Mentor training has been planned. Mentoring can be a solution for skill shortages in some sectors such as SMEs from health sector. DIMENSAAI (Diversity and Mentoring Approaches supporting Active Ageing and Integration – www.dimensaai.eu) is a European Ldv innovation transfer project coordinated by one of the authors. The consortium intends to improve participation of volunteers in mentor training to improve employment, particularly for disadvantaged people and to equip such people with the knowledge and skills needed to integrate.

7. CONCLUSIONS

This paper highlighted aspects which could improve the training impact and so the competitiveness and situation of SMEs in today's competitive environment.

Mentoring has been presented as a means of facilitating transfer and application of strategic knowledge in SMEs, of preparation more productive workers and integration of disadvantaged groups.

ACKNOWLEDGEMENTS

This paper describes work within the Net Knowing 2.0 and DIMENSAAI supported by the EU within the LLL Leonardo da Vinci sub-programme.

REFERENCES

- [1] Porter, M.E. "Clusters and the new economics of competition". In: Harvard Business Review, 76(6): 77-90, (1998).
- [2] Observatory of European SMEs, Competence Development in SMEs Report 1. European Commission http://www.eured-sme-bih.org/index.php?option=com_remository&Itemid=71&func=showdown&id=74, accessed on 21/12/06, (2003).
- [3] Jameson, S.M., Recruitment and training in small firms, Journal of European Industrial Training, Vol. 24, No. 1: 43-49, (2000).
- [4] Devins, D. and Johnson, S., Engaging SME managers and employees in training: lesson from an evaluation of the ESF Objective 4 Programme in Great Britain, Education and Training, Journal of Small Business and Enterprise development, Vol. 44, No. 8/9: 370-377, (2002).
- [5] Akhtar, S., Ding, D.Z and Ge, L.G., "Strategic HRM practices and their impact on company performance in Chinese Enterprises". In: Human Resource Management, 47(1): 15-32, (2008).
- [6] Sum, V., "The role of training and firm's competitiveness in the knowledge-based economy". In: Proceedings of the MTMI – TRU 2010 International Conference on Emerging Paradigms and Practices in Business Management & Technology Management. Kamloops, British Columbia, Canada, (2010).
- [7] Hamburg, I., O'Brien, E. and Engert, S., "Engaging SMEs in cooperation and new forms of learning". In: Computer and information science 7, (2013).
- [8] Rosenberg, M.J., The e-Learning readiness survey: 20 key strategic questions you and your organization must answer about the sustainability of your e-Learning efforts. Available at: <http://books.mcgrawhill.com/training/eLearning/elearning-survey.pdf>, (2000).
- [9] Mullin, J., "Raising skill level is essential for raising competitiveness". In: The Engineer: 35, (2003).
- [10] Maurer, J., Career-relevant learning and development, worker age, and beliefs about self-efficacy for development. Journal of Management 27 (2): 123-140, (2001).
- [11] Blundell, R., Dearden, L., Meghir, C. and Sianesi, B., 'Human Capital Investment: The Returns from Education and Training to the Individual, the Firm and the Economy', Fiscal Studies 20(1): 1-23, (1999).
- [12] Laugesen, N., Lauritzen, J.R., Carpenter, G., Ellegaard, C.M., Bucher, M. and Stabe, M., Cloud Computing Cyber Security and Green IT. The impact on e-Skills requirements, Prepared by the Danish technological institute and Fraunhofer for the European Commission, May 2012, (2012).
- [13] Cross, J., Implementing e-Learning, ASTD, (2004).
- [14] Cross, J., Informal Learning, Pfeiffer, (2006).
- [15] Bandura, A., Social Learning Theory. General Learning Press, (1977).
- [16] Boller, S., Learning Trends, Technologies, and Opportunities – New White Paper, (2012)
- [17] Kram, K., "Mentoring at work. Developmental relationships in organizational life". Scott, Foresman & Company, Glenview, ISBN 0-673-15617-6, (1985).
- [18] Hamburg, I., "Facilitating learning and knowledge transfer through mentoring". In: CSDU 2013: 5th International Conference on Computer Supported Education; Aachen, Germany, 6-8 May, 2013. Lissabon: Science and Technology Publications: 4, (2013).
- [19] Loden, M. and Rosner, J., Workforce America! (Business One Irwin), (1991).

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