Meeting the Training Needs of SMEs: Is e-Learning a Solution?

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Abstract: Training is one of the basic means of human resources development in business organizations, aiming to motivate employees, to develop their potential and to help them perform better. The end of the 20th century has seen the advent of globalisation and the diffusion of new information and communication technologies. Businesses have to change and adapt to the requirements of the new knowledge-based and skill-based economy. Facing pressures from an increasingly competitive business environment, small and medium-sized enterprises (SMEs) are called upon to implement strategies that are enabled and supported by information technologies and e-business applications in order to compete with others' organizations. One of these applications is e-Learning, whose aim is to enable the continuous assimilation of knowledge and skills by managers and employees, and thus support organisational training and development efforts through the use of the Internet and Web technologies. Little is known however as to the level of awareness of e-Learning in SMEs and as to the actual role played by e-Learning with regard to these firms' training needs. A multiple case study of sixteen SMEs in the Atlantic region of Canada, including twelve that use e-Learning with varying degrees of intensity, was designed to explore this question. We observed the firms' training process, identifying to what extent the SMEs know and use e-Learning, and to what extent e-Learning meets their training needs.

Keywords: e-Learning, training, SMEs, training needs analysis, learning, workplace learning

1. Introduction

In a knowledge-based economy, the performance of business organizations depends on ensuring that all categories of employees possess current and up-to-date knowledge and skills (OCDE, 2002). Therefore, the new knowledge and information-based economic system implies a strategic role for the training function, and has significant implications for the identification of training needs and the delivery of training. Now, businesses must analyze their training needs in greater depth and train a larger number of employees with different backgrounds in terms of knowledge and experience, and they have to do so more rapidly than in the past, while attempting to reduce training costs to remain competitive in a complex and changing environment. For their part, employees also must be constantly in a learning mode, in order to increase their knowledge and improve their skills. As a result, training habits have to change, for both organizations and their employees. Thus many large enterprises have turned to e-Learning as a "best practice" aimed at providing adequate training to their employees so they can remain up to date and competent in their jobs (Hall and LeCavalier, 2000).

But what about small and medium-sized enterprises (SMEs) in this regard? In the Atlantic region of Canada for instance, these firms represent about 80% of all business organizations, create about 80% of the jobs, and are considered as the mainstay for the region's economic development (Brady, 1995; ACOA, 1998). But SMEs are organisations that show specificity in terms of their environment, strategy, structure, technology and culture, and differ markedly from large enterprises with regard to their training and development needs (Vickerstaff, 1992; Winch and McDonald, 1999) and their resources and capabilities (Vinten, 2000). While attempts have been made to implement e-Learning applications designed for SMEs (Mullins et al, 2007), and to identify the impact of e-Learning on the performance of these organizations (Little, 2001), there is as of yet insufficient empirical evidence and understanding to support the use of e-Learning as an efficient and effective solution to the training problems of SMEs (Welsh, Wanberg, Brown and Simmering, 2003).Therefore, two questions arise: What is the present level of awareness and use of e-Learning in SMEs? And to what extent are SMEs using e-Learning to identify and meet their training needs?

The aim of this research is to explore these two questions, through a multiple case study of 16 SMEs located in the Atlantic region of Canada.

2. Research background

While one should be cautious in interpreting trend watching reports (Boon, Rusman, van der Klink and Tattersall, 2005), the adoption of e-Learning technology for purposes of workplace training and human resource development is rapidly growing in large organisations, both private and public, and to a lesser extent in SMEs (Beamish, Armistead, Watkinson and Armfield, 2002; Misko, Choi, Hong and Lee, 2004). The

practitioner literature, adopting a "best practices" approach for the most part (Hall and LeCavalier, 2000), has focused on issues of cost and technological issues, whereas research on e-Learning in the workplace is deemed to require a better theoretical grounding (Daelen, Miyata, Op de Beeck, Schmitz, van den Branden and Van Petegem, 2005), a broader conceptualization of e-Learning's impact on the organisation and its individual members and, in particular, "a broader understanding of workers' learning and affective needs" (Servage, p. 304). Attempts have thus been made to identify the contextual conditions, pedagogical prerequisites, methodologies and design principles for the successful implementation of e-Learning in SMEs (Tynjälä and Häkkinen, 2005; Lawless, Allan and O'Dwyer, 2000; Moon, Birchall, Williams and Vrasidas, 2005).

2.1 Definition of e-Learning in the workplace

In the absence of a clear and common definition of e-Learning, along with the presence of related terminology such as "computer-based training" and "distance learning", conceptual ambiguity and problems of comparability can be encountered when this concept is used for research on workplace training (Pailing, 2002; Servage, 2005). The definitions most often provided link learning activities and technologies. In this line of thought, Abram (2003) defines e-Learning as basically using the Internet, an intranet, an extranet, or other Web technologies to provide training to individuals in a synchronous or asynchronous mode, while for Welsh, Wanberg, Brown and Simmering (2003), it is defined as "the use of computer network technology, primarily over or through the Internet, to deliver information and instruction to individuals". A report by the American Commission on Technology and Adult Learning (ASTD, 2001) states that "e-Learning is instructional content or learning experiences delivered or enabled by electronic technology". The Conference Board of Canada's (2001) workplace e-Learning report provides that "e-Learning uses information and communications technologies (ICTs) to deliver content (learning, knowledge and skills) on a one-way (asynchronous) or two-way (synchronous) basis". Terry (2000) defines e-Learning as "the ability to deliver training and education via Web technology". It is meant to improve training by providing current content anytime, anywhere, and offering learners a customized, interactive, just-in-time experience. For Gill (2000), e-Learning comprises all training activities that use Web technologies.

E-learning typologies that combine certain characteristics or criteria have also been developed by some authors (Abram 2003; IDC 2004; Servage, 2005). Those characteristics most often used are: time, place, access and support, technology (development and delivery), interaction, personalisation and control (Piccoli, Ahmad and Ives, 2001).

2.2 Purported benefits of e-Learning for SMEs

Training in SMEs is deemed to benefit from e-Learning for various reasons, both economical and technical (Tyler, 2001). This includes reduced travel costs, training needs being met at a more appropriate time for the organization and its employees, and not having to replace employees during work hours. Servage (2005) mentions that e-Learning provides for a higher personnel retention rate, while Rosenberg (2002) notes a faster distribution of training materials and a more consistent delivery of course contents. Pantaziz (2002) mentions that e-Learning reduces training time and can lead to increased employee productivity and business performance. The various benefits of e-Learning are summarised in Table 1, a number of empirical studies having confirmed their existence. For instance, it was found that some firms believe the two main benefits of e-Learning to be its capacity to support access to training from the workplace, thus reducing the time spent outside the work area, and its capacity to structure the training in small modules that can better meet the training needs of employees (Industrial and Commercial Training 2001). For employees, the main benefits of e-Learning were found to be its convenience and the opportunity to learn at their pace. Another study found that a majority of firms perceived e-Learning as being an economical, efficient, flexible, practical and time-effective mode of training (Journal of European Industrial Training 2002).

Frison (2001) adds that e-Learning represents an "added value" as compared to conventional training methods. This is particularly important for SMEs, given that the main conclusion obtained from the empirical research to-date is that, in a globalised knowledge-based economy, there are a number of unresolved problems that still beset these firms with regard to workplace learning, and in particular there is still great difficulty in providing education and training that meet the specific needs of SMEs, their owner-managers and their personnel (Dawe and Nguyen, 2007).

Table 1: Benefits of e-Learning as a function of its characteristics

Characteristics	Explanation
Flexibility and accessibility (availability)	Possibility for the employee and the firm to choose a course's time (any time – 24 hours a day / 7 days a week) and place (any location) (Bélanger and Jordan 2000; Britt 2004; Cutshall 2002; Kenyon 2002; Melymuka 2002; Nonprofit World 2002; Perez and Foshay 2002; Phillips 1998; Rosenberg 2002; Sloman 2001).
Modularity	Possibility for the employee to only complete the part of the course that pertains to his needs and not the entire course (Britt 2004; Emmond 2005; Melymuka 2002), along with the possibility of working on the course sections that are not as well understood (Youngers 2002).
Speed	Possibility for each employee to learn at his or her own speed (Davis 2001; Nonprofit World 2002; Perez and Foshay 2002; Phillips 1998).
Privacy	Possibility of completing the course alone at home (privacy) and of not having to suffer the discomforts (shyness, feeling of lack of knowledge, etc.) that some employees experience from time to time (Perez and Foshay 2002).
Interactive feedback	Possibility of having an instructor and personalised support by this instructor, and of getting feedback by various means (telephone, fax, email, camera, etc.) (Bélanger and Jordan 2000; Melymuka 2002; Perez and Foshay 2002).
Cost	Reduction in training costs (course fees, transportation, meals, lodging, time away from work). There are numerous courses already developed in e-Learning format that are free or available at reasonable prices. These courses, in addition to being less expensive than conventional courses, allow SMEs to save on travel, lodging and meal costs. These courses reduce the loss of employees' production time or the need to replace employees (Bélanger and Jordan 2000; Britt 2004; Kenyon 2002; Kolbasuk McGee 2003; Masie 2000; Melymuka 2002; Pantazis 2002; Phillips 1998; Rosenberg 2002; Terry 2000; Youngers 2002).
Learning style	Possibility of presenting the course material in various formats and meeting the various learning styles of employees (Bélanger and Jordan 2000; Melymuka 2002; Young 2002).
Customisation	Possibility of customising the training according to each participant's needs (Sloman 2001; Youngers 2002; Zahner 2002).
Evaluation	Possibility of evaluating employees' progress on a continuous basis (Britt 2004; Emmond 2005; Kenyon 2002; Youngers 2002).
Distribution of training material	Faster distribution of the training material (Rosenberg 2002).
Consistent delivery	Consistent delivery of the content of the course, from one time to another (EIU 2004; Halkett 2002; Rosenberg 2002).

3. Research method

Given the present state of knowledge on e-Learning in SMEs, a qualitative and exploratory research approach was used. The case study method is well adapted in situations where theoretical propositions are few and field experience is still limited (Yin, 1994). A multiple-site case study allows one to understand the particular context and evolution of each firm with regard to e-Learning.Sixteen SMEs located in the Atlantic region of Canada were studied, that is, four in each of the provinces of New Brunswick, Nova Scotia, Prince Edward Island and Newfoundland, selected to be sufficiently successful (at least 10 years in business) and representative in terms of industry and size, for theoretical generalization purposes. Following North American research (Mittelstaedt, Harben and Ward, 2003; Wolff and Pett, 2000), a small enterprise (SE) is defined as having 20 to 99 employees, whereas a medium-sized one (ME) has 100 to 499.

Data were collected through semi-structured tape-recorded interviews with the owner-manager or CEO and with the firm's HR manager or manager responsible for training. e-Learning users were also interviewed in four cases. Interview transcripts were then coded and analyzed following Miles and Huberman's (1994) prescriptions. For reasons of confidentiality, fictitious names of individuals and firms participating in the study were used. As presented in the research results section, these firms range in size from 60 to 485 employees and operate in industries whose technological intensity varies from low to high. All export except for one firm (M). The SMEs were regrouped in four e-Learning profiles of increasing intensity, based on the extent of their awareness and use of e-Learning (none, weak, average, strong).

4. Research results

4.1 Awareness and perceived benefits of e-Learning in SMEs

The majority of the SMEs who participated in the study are quite aware of e-Learning and offer definitions that closely resemble those that are found in the literature. As indicated in Table 2, while the e-Learning concept is fairly well known by the majority of SMEs studied, it remains to be defined for some.

Table 2: Illustrations of e-Learning definitions offered by SMEs

"It is any kind of system that allows you to learn a skill through the computer and basically, Internet, an interactive software or text notes; text notes would be the worst case scenario and some kind of an interactive software that would give you results and test questions and so on….pick and choose kind of thing, so you can actually see if you are taking the right decisions. " Bert (B:491-496)
"E-Learning is learning trough a computer program, with a computer program on-line. It is almost like distance education whether it is local or not but it is obviously something you can do on a computer system as opposed to going to a building. " Fiona (F:437-438:442-445)
"I am not familiar with the proper term but I suppose it is e for electronic. " Gilbert (G:132-133)

Further analysis enables us to qualify the SMEs' stated knowledge and use of e-Learning, as these firms can be categorized under four distinct profiles. There are SMEs that have a strong, average or weak knowledge and use of e-Learning, and those whose knowledge is minimal and use is nonexistent, as indicated in Table 3. Evidently, SMEs that make greater use of e-Learning have a better capacity to define it.

Table 3 also shows that several SMEs in Atlantic Canada use e-Learning, up to a certain degree, to train their employees. During this study, 75% of SMEs were using e-Learning to train their employees. This tends to confirm what is indicated by Bassi and Van Buren (1999), i.e. that Internet and Web-based training methods are being increasingly used by SMEs. An interesting fact to note, in the case of a "weak" use of e-Learning by SMEs, it is usually the employee who has chosen to develop his/her knowledge through e-Learning. Julien (firm J) provides an example "Some employees have chosen e-Learning, but it is usually on an exception basis, to develop their work knowledge and it was suggested by the employee and not the employer".

Table 3: Profiles of e-Learning awareness and use in SMEs

Profile (SMEs)	I - *strong* (C, D, K, L)	II - *average* (B, E, M, O)	III -*weak* (A, F, I, J)	IV - *non-existent* (G, H, N, P)
Size No. of employees	300 to 485	60 to 280	150 to 350	75 to 400
E-Learning Utilization	Strong	average	Weak	non-existent
E-Learning Knowledge	Strong	average	Weak	non-existent

Nota. A "strong" use means that the firm regularly uses e-Learning to train its employees. An "average" use means that the firm has developed at least two courses in e-Learning format and that production employees must take these courses. A "weak" use means that only a few employees use e-Learning. A "non-existent" use means that the firm does not use e-Learning to train its employees.

The decision to use e-Learning by the employees in order to further develop their knowledge is linked to their perceived benefits of e-Learning. Fiona (F) provides us with an example: "The employee chose this method because she wanted to continue working; she needs to work; she wanted to complete her bachelor's degree while working at the same time". Denise (D) gives us another example: "Since I have a three year-old daughter and that my work schedule is rather full, I can complete the work at 3:00 AM in my slippers. Honestly, I chose e-Learning because of the flexibility". As for the choice of SMEs to use e-Learning to train their employees, that decision is also a function of the benefits they may obtain from e-Learning. To this effect, table 4 illustrates different statements regarding the perceived benefits of e-Learning by SMEs who use it. These benefits are basically the same as those described in the literature (Table 1). These are not only perceived benefits but realised benefits that motivate SMEs to further use e-Learning for training purposes.

Table 4: Benefits of e-Learning as perceived by SMEs

Characteristics	Explanation of the benefits of the characteristics
Flexibility and accessibility (availability)	Possibility to choose the time and place to follow the course (Arthur, A; Edna, E; Ivan, I; Marie, M) Access to training outside work hours (Carl, C; Fiona, F). Flexibility, 24/7 (Denise, D). Access to training that would be unavailable otherwise (Karen,K; Marie, M). Access to expertise that would be unavailable otherwise (Denise, D).
Modularity	Possibility of doing or re-doing only part of the course that is relevant to the employee (Edna, E).
Speed	Capacity to learn at your own speed as some people learn faster than others (Edna, E; Fiona, F; Ivan, I; Julien, J; Karen, K). Allows the firm to train more employees during the same period (Carl, C).
Privacy	Possibility of taking the course alone at home (Denise, D).
Interactive Feedback	Possibility of getting feedback by different means (telephone, fax, e-mail, camera, etc.) (Denise, D; Karen, K).
Cost	Cost reductions (course, travel, lost time) (Arthur, A; Ivan, I; Marie, M). It is training that is not costly when you only have 1 or 2 people to train, as it is not necessary to hire a trainer (Bert, B; Karen, K). It is an efficient way, cost-wise, to offer training. It reduces travel and meal costs […] and reduces the time lost from work (Marie, M).
Learning style	Possibility of presenting the course material under various formats and matching the different learning styles of employees (Ivan, I).
Evaluation	Possibility of evaluating employee progress during training (Edna, E).
Distribution of literature	The literature is always up-to-date; you don't have a folder that collects dust on the shelves (Bert, B). Capability of acquiring knowledge that is rare or not used often, and to memorise it electronically for future use (Denise, D; Omer, O).
Consistent delivery	Assures that all employees receive the same training (Carl, C). The training is delivered in the same manner to all employees (Julien, J). Possibility of communicating information in an accurate and consistent manner (Denise, D).

4.2 Use of e-Learning in SMEs

All SMEs who participated in the study did in fact analyze their training needs, contrary to what has been mostly reported in the literature. What varies from one SME to another is the degree of formalization and rigour with which the analysis is carried out, and the sophistication of the tools used. In some cases, the analysis of training needs is carried out with less rigour and fewer tools. Helen (H) provides us with an example "I think that department heads already have a good idea of what employees need with regard to training, or what they would like them to have, as they make an evaluation every six months". In other cases, however, the degree of rigour is high and the tools used are quite sophisticated. Denise (D) gives us an example "We use what we call a skill gap analysis supervisory road map". Table 5 presents, in more detail, the tools used by each SME to analyze its employees' training needs, the degree of formalization and rigour of this analysis, and whether this analysis is made in a holistic manner, that is, with regard to the firm's strategic objectives.

SMEs that make greater use of e-Learning and ICTs in general, i.e., firms C, D, K and L (profile **I**), are seen to conduct much more formalized and rigorous analyses of their training needs. They use more sophisticated tools; some even use learning management systems (LMS) or other software for this purpose. They also identify training needs earlier, that is, either when employees are hired or soon after. Claude (C) gives us an example:

> *"The training needs analysis is done when we hire them; it is done before they start to work. We use a Learning Management System".*

Also, the greater their awareness and use of e-Learning, the more SMEs tend to analyze their training needs in a holistic manner, that is, to identify them in conformity with the firm's strategic objectives and planning. Karen (K) gives us another example:

> *"The general manager decided to include training needs in the annual business planning and in the development plan of the company. Top-management realises the importance of continuous learning*

and on-going training. [...] We made the analysis according to our planned objectives. We have software in human resources".

Whereas SMEs which do not use e-Learning, i.e. firms G, H, N, P (profile **IV**), mostly use performance evaluation as a tool to analyze their employees' training needs. This tool is used either to determine if employees can carry out in a satisfactory way the tasks that are assigned to them, that is, to determine if training is necessary. As mentioned by Patrick (P):

"We do not really do an analysis of training needs but we identify what employees need when we hire them. We train them when we hire them; we train them directly on the machine. We estimate their performance during a three-month probationary period to make sure that they can operate the equipment. We give more training when it is necessary to make sure that they can do their job correctly and efficiently".

Nathalie (N) makes similar remarks:

"During performance evaluation, we identify an employee's training needs such that the work is done correctly, but there is no 'analysis' as such".

Gérôme (G) goes further:

"For production employees, we don't really do an analysis because their training needs are known. We have employees that have been with the company for 30 to 40 years... If we notice, after a few weeks, that an employee does not meet standards with a new machine, then we make changes and give training to that employee. We can't allow a machine to run at 50 % efficiency".

Also, SMEs where e-Learning is non-existent conduct a less formalized and rigorous analysis of training needs, and this analysis is not specifically related to the attainment of the firm's objectives. Whereas SMEs that make average use of e-Learning, i.e. firms B, E, M, O (profile **II**), and those that have a weak level of use, i.e. firms A, F, I, J (profile **III**), use a varied range of tools to make such an analysis. In this regard, Ivan (I) says: "We use a combination of tools to analyze our training needs". Adds Jules (J): "Various means are used. We have also committed ourselves to having the trade-union representatives form a committee that will identify where the gaps are".

Training needs identified by SMEs are varied and depend upon each company's area of endeavour. They can be divided into two main groups: interpersonal skills and technical skills. The following training needs were mentioned: team work and respect of others, coaching skills, facilitation of meetings, leadership, effective communication, interpersonal skills, problem solving, stress management, anger management, valued-added activities, regulatory training (pollution, environment, and health), management, computers and technologies, time management, job orientation, health and safety at work, continuous improvement, higher technical skills, performance and quality management. Some SMEs encounter difficulties when they want to fulfill their training needs and some are sometimes unable to do so even when they know how. One of the benefits of e-Learning use in SMEs is precisely the possibility of having access to training products and services that would be otherwise unavailable, as indicated in Table 6.

The development of courses internally, in an e-Learning format, is also another way for SMEs to meet their training needs. Says Bert (B): "We developed some courses on our own, especially those related to regulatory training". Denise (D) adds: "We developed a partnership with a company specialized in our field to develop our courses. Each one is comprised of 60 % general material and 40 % material specific to our company".

5. Conclusion

In evaluating the feasibility of e-Learning in their firm, the managers interviewed in this study allude to a number of pre-requisites that could constitute the core of an action plan to further enable e-Learning in their organisation. The first such pre-requisite mentioned is the need to develop an e-Learning culture within the organisation, where managers and employees are truly motivated and committed to use e-Learning because they believe it is essential to their individual development and their organisation's development. This implies greater awareness and promotion of e-Learning's value through the dissemination of knowledge among SMEs as to the nature, possibilities and advantages of e-Learning for workplace training, and as to the supply and appropriateness of e-Learning services and products available. A second pre-requisite mentioned by the respondents is the necessity to lower the present barriers to the efficient and effective use of e-Learning by SMEs. This implies that employees possess the computer knowledge and skills required to use e-Learning effectively, and that they be provided with e-Learning software that is user-friendly and appropriate to the task at hand. This also implies better management and technical support of employees with regard to e-Learning, support which was found lacking in a number of SMEs.

Table 5: Formalization, rigour and tools used to make the needs analysis

Profiles	SME	Holistic	Form. and rigour	Tools used
Profile I strong	C	yes	high	▪ learning management system (LMS)
	D	yes	high	▪ performance appraisal system - annual personal development plan ▪ industrial psychologists' tests ▪ skill gap analysis road map matrix ▪ performance evaluation
	K	yes	high	▪ analysis of the firm's needs ▪ various software
	L	yes	high	▪ learning management system (LMS)
Profile II average	B	no	average	▪ supervisor notices needs ▪ external evaluation: observation
	E	yes	high	▪ task analysis ▪ skills analysis ▪ database
	M	yes	average	▪ management by objectives ▪ task analysis
	O	no	average	▪ skills matrix ▪ task analysis
Profile III weak	A	no	average	▪ skills matrix ▪ task analysis
	F	no	low	▪ performance evaluation ▪ annual planning (repetitive training)
	I	yes	average	▪ survey ▪ training plan ▪ skills matrix ▪ task analysis
	J	yes	average	▪ analysis of the firm's needs ▪ development plan ▪ observation ▪ group discussion (manager - supervisor - union representative - employee) ▪ critical incidents analysis
Profile IV non-existent	G	no	low	▪ performance evaluation (equipment)
	H	no	low	▪ performance evaluation
	N	no	low	▪ task analysis ▪ performance evaluation
	P	no	low	▪ task analysis ▪ observation ▪ performance evaluation

Table 6: Illustrations of e-Learning as a solution to meet the training needs of SMEs

"There are not many opportunities in this area when it comes to training or higher education; therefore we have to investigate other alternatives." Arthur (A)
"We don't have an MBA accessible in this area. The online MBA either from Athabasca, Royal Roads or other universities gives us the opportunity to access training that otherwise would not be available." Denise (D)
"It opens up the door to a lot of training that would not be available otherwise. We are in a remote area, therefore we're not going to get or be offered the same types of courses than in urban areas because there's just not the market for it here. It enables us to have access to the same types of, you know, knowledge and education as the larger centres." Marie (M)
"Availability. We tried to book conventional courses in an educational institution and we had to cancel three separate courses for two, I mean six courses in total that were cancelled. We said that's it, we have to find another way around this thing because three months went by and there was no training. The person was basically useless and was moved to another job." Ivan (I)

Owner-managers and HR managers may use the results of this study to evaluate and compare their firm's situation, and thus gain insight with regard to training and e-Learning. This is particularly important for the identification of training needs, as a lack of stakeholder knowledge here has had a definite impact on the SMEs' capacity to satisfy these needs. Regional development agencies and other stakeholders may also use these results to better understand the training needs of SMEs, how e-Learning can help, and thus to revise and refine their plans and actions in support of regional development through this technology.

Globalization and the internationalization of markets have increased competitive pressures on SMEs. This has led some companies to engage in training projects that are critical to their becoming "world-class" enterprises. While e-Learning is becoming increasingly common in organisations, very little is known of the extent to which this technology is used by SMEs in their training process, and of the extent to which e-Learning can meet these firms' training needs. This research has attempted to describe and understand the role played by e-Learning in identifying the training needs of SMEs. Facing competition in a global economy that is based on knowledge, and under pressure from their most important business partners, many of these firms must attain increasingly higher levels of excellence and performance. In this changing environment, organisational learning and workforce training constitutes a critical success factor for these enterprises. E-learning may yet achieve its potential in this regard if managed and used wisely by SMEs with the support of both researchers and practitioners.

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