

Towards A Learning Construction Organisation: Knowledge And Human Capitalising Through A New Paradigm Of Training, “E-Learning”.

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Abstract

In the past two decades the growing interest in organisational learning is evident. Many organisations worldwide seek to bear the name of ‘learning organisation’ as a mark of achievement and competition. Construction industry is no exception. The ability to become a learning organisation depends very much on the human capital, which all organisations are made up of. Being one of the largest workforce employer in most countries, construction organisations have the seeming advantage as long as it is able to capitalise on its human asset and make them the competitive advantage. This paper introduces to the construction organisations the essence of being a learning organisation and discusses roles of human capital in it. It then suggests how the industry may adopt e-learning as a new means of training which will help to capitalise on the human capital.

Keywords

Learning organisation, human capital, training, e-learning, construction companies.

1. Introduction

The term, ‘learning organisation’ can be seen literally in every management literature. Its evolution can be traced from the advent of technology explosion, which the world has experienced over the past two decades (Schwandt and Marquardt, 2000). The objective of being a learning organisation is intuitively to maintain sustainable competitiveness and to ensure annual profit. To achieve this aim, Kapp and McKeague (2002) affirmed that, “organisations that continually educate their employees grow, mature and stay competitive; those that don’t disappear.” PrimeLearning.com (2001) added that, “workers today must constantly upgrade both their knowledge and skills if their companies are to continue to compete successfully.” The evident emphasis and promotion on upgrading and capitalising on the human resource extends inevitably to the construction industry as well (CME, 1998 and Mackenzie et al., 2000).

Stone (1998) further emphasised that a well-trained, multi-skilled workforce is essential to Australia’s economic survival. Moreover, many leading USA companies have already recognised that training and development can be a powerful tool for generating change and creating competitive advantage (Stone,

1998). In Australia, employers reported a total of \$3,652.8 million in net direct expenditure on structured training during the 2001-2002 financial years. This represented an increase of 52% compared to 1996 (ABS, 2002). Even though there is a significant increase, the lack of investment in training is nevertheless often cited as why Australian companies are losing market share to foreign competition (De Cieri and Kramar, 2003). This may suggest that the current emphasis on training is yet to be sufficient, or effectively efficient.

As observed in ABS (1997), the major reasons employers limit expenditure on training are, employees are already trained adequately (44%), time constraints (34%), and cost constraints (32%). Between these, time and cost elements are the main active variables. This suggests that a training means that justify both just-in-time learning and cost effectiveness would seem to be the seamless solution, which is also why the business world today is constantly exploring more effective means of training its workforce. In recent years, e-learning has been looked upon as the new training means. E-learning is becoming so widely recognised that literature in education, human resource and training have recommended this technology as the preferred method for learning.

The theme is rather clear. Organisations have recognised the importance of being a learning organisation and a means of achieving so is to appreciate its workforce and to capitalise on it. Consequently, constant upgrading of workforce through learning and training, and more recently 'e-learning' are consensually the predominant methods of doing so.

2. Towards a Learning Construction Organisation

A learning organisation can be described as one whose employees are continuously attempting to learn new things and apply what they have learned to their work to improve product or service quality. The improvements do not stop even when formal training is completed. Cited in Bassi et al. (1998) as one of the top ten trends in the United States is, "in a 1995 ASTD (American Society for Training and Development) survey, 94% of respondents said they thought it was important to build a learning organization; only 9% said their companies weren't moving in that direction."

Construction organisations too have begun to recognise the importance of being a learning organisation and are developing themselves into becoming one (Gann and Senker, 1998). Nonetheless, the effort is unapparent. Beckingsdale and Dulaimi (1997) (cited in Makenzie et al., 2000), concluded that, "the ability of construction companies to embrace the concept and the practices of the learning organisation is limited, and that the training and development of employees is largely of secondary importance within the industry." Fortunately, subsequent findings by Makenzie et al. (2000) argued that this negative impression is shifting.

In order to transform into a learning organisation, two critical elements must be addressed. Schmidt (2000) announced that, "in the workplace of the future, only two things will matter: people and knowledge..... the new heroes will be people with sophisticated human resources or knowledge management skills." His claim is not without justification. The recent overwhelming influx of literature on knowledge management and training models justify the means. Quoted in De Cieri and Kramar (2003), McBride, chief knowledge officer for KPMG augmented that, "generally, companies have treated their human resources a bit too much like commodities, especially in the 1980s. In future, they will realise that knowledge and human resources are the two vital components. Organisations will come back to realising that their real asset is managing what they already have."

2.1 Adding Value to the Intellectual (Human) Capital of a Learning Organisation

A Chinese proverb cited in Stone (1998) wrote,

*If you are planning for one year, grow rice.
If you are planning for ten years, grow trees.
If you are planning for centuries, grow people.*

Although not entirely a rational theory, but to all intents and purposes it has shown the magnitude of influence of human entity. More often than not, the phrase “people is an organisation’s most important asset” appears in human resource books and organisation’s vision or CEO’s statement. Nevertheless, Sloman (2001) and Bassi et al. (1998) observed that inevitable cynicism has followed from the downsizing, ‘involuntary redundancy’ of the 1990s, and other policies that belie the importance of human capital refute the claim. Fortunately, there are signs that it is changing. The emerging interest in knowledge management and intellectual capital suggests that firms are, in fact, attempting to manage and leverage knowledge [and the people who possess it] more effectively (Bassi et al., 1998).

Generally, intellectual capital is created through a process of combining the knowledge and experience of different parties and of exchange between the parties. De Cieri and Kramar (2003) identified the three important contributors to the intellectual capital of an organisation as the human capital pool, structural capital and customer capital. Between these, human capital pool is being recognised as the basis of value creation in organisations. De Cieri and Kramar (2003) explained that although certain organisational information processing systems can be an aid towards a learning organisation, ultimately the people [human capital] who make up the company provides the raw materials in a learning organisation. Sloman (2001) suggested that, “effective training is needed if an organisation is to compete or achieve its objectives through the enhanced capability of its people.” Training is now viewed as a key factor in a job’s attraction and a company’s ability to retain employees (PrimeLearning.com, 2001). PrimeLearning.com (2001) further suggested that in the 21st century, employee training would become a key competitive strategy for companies wanting to capitalise on their human and intellectual capital. It is unmistakable that to add value to the human capital, appropriate training must be provided. Coincidentally, a recent study of 575 USA based publicly traded firms, determined that companies investing the most in training experienced higher gross profit margins and higher income per employee than companies that did not significantly invest in educational initiatives (Bassi et al., 2000). In fact, many experts believe that the ability to learn faster than one’s competitors is an organisation’s only sustainable competitive advantage (Kapp and McKeague, 2002).

Organisations have gain acceptance that training of workforce will, if not all, to a considerable extend, subscribe to a learning organisation. Nevertheless, it is worth noting that training by itself will not resolve all organisations’ problems. Other issues, such as the volume of work, quality of raw materials, age of equipments and labours concerns, can create problems that training cannot solve (Sales, 2002).

3. A New Paradigm: The Shift from Traditional Training to E-Learning

Albert Einstein once wrote that, “No problem can be solved from the same consciousness that created it; we must learn to see the world anew.” (Cited in Schwandt and Marquardt, 2000) This suggests that solutions that may have worked for the past are not necessary as effective today. Newer means have to be sought in order to improve and sustain.

In its simplest terms, e-learning is the use of Internet technology to facilitate learning, and one of its benefits is being learner-centred. Through e-learning, learners control much of their own learning capacity, mode, pace and experience. Bearing in mind that being able to customise the learning styles to suit individual learner is very important to learning success (Honey and Mumford, 2000). The learner-centred approach allows the learners to control and hold responsibility of their own learning experience. More importantly, training can then be scheduled outside of normal working hours, or as and when required. As we are now living in an era that demands more, better, faster, with less. E-learning provides

a cheap means of delivering training through the Internet. Moreover, in an era of budget cuts and downsizing, the evidence that e-learning technologies can reduce training time and costs (and train more people more often) is causing great interest (Bassi et al., 1998).

PrimeLearning.com (2001) has also suggested that e-learning actually helps to retain knowledge acquired during a training course. On the other hand for traditional learning, the percentage of materials remembered or retained literally decline by days. This is believed to be associated with the media and support offered in a classroom as compared to e-learning. Moreover, during traditional training sessions, learners or trainees are often exposed to an overwhelming amount of information and materials impossible to 'digest' by many. An anonymous paper quoted this rather interesting proverb,

*“The more you study, the more you know.
The more you know, the more you forget.
The more you forget, the less you know.
So, why study?”*

Although this seems beside the point of our discussion, it light-heartedly suggests that over supply of information is not necessary helpful to the learners. With e-learning, it allows learners to learn on need-to-know basis.

E-learning success in education is an evident success. Many researchers and educators praise e-learning for the many benefits it has brought about. However, e-learning as a means of training is still sceptical to some. Understandably, the introduction of a new training paradigm into an organisation is a tedious and demanding operation. Notwithstanding the resources, money, time, effort in re-establishing the training programs, it is most important that the human entity must understand the dependency of their actions on the cultural values the organisation is adopting for a change.

Perhaps the foremost barrier to e-learning is cost. Employers generally think that e-learning technologies are more expensive than classroom training. Whalen and Wright (2000) agreed that Web-based courses do cost more to develop. However, they argued that there will be a 'break-even point' whereby the number of students or trainees will offsets the fixed cost of Web-based training. Sales (2002) listed some other reasons for not using e-learning as:

- Employees may not use it after it is developed.
- Current workload is already demanding and time-consuming.
- Employees are highly accountable for seeing that their job is done well and training seems to impede the progress.
- Employees see this as an extra to their current workload.
- Immediate supervisor do not appreciate the value of training, thus not promoting such activities.

A promising survey conducted by the ASTD in 2001 saw a gradual increase in training delivered through e-learning and the figure is expected to grow further (Van Buren and Erskine, 2002 and PrimeLearning.com, 2001). It is forecasted that within the next five years, between 25% and 40% of all corporate learning in Australia will use online and Internet Technology (De Cieri and Kramar, 2003). Sloman (2001) believes that training in organisations is in a state of transition. Organisations are gradually exploiting the benefits of learning and training through Internet technology. Christensen (1997) described the Internet as a “disruptive technology” for the training profession. Christensen (1997) felt that with Internet, traditional business model will be overturned and if trainers fail to grasp and follow the trend, they would lose their competitiveness. More exhaustive cases of successful training with e-learning can be seen in Schank (2002).

4. E-Learning in Construction Industry

Other industries may not be strangers to e-learning as a means of learning and training, however, the construction industry sees a different situation. Infamous with terms like, slow, diverse, traditional, and conventional, construction industry is never popular when associated with new technology. As such, unsurprisingly, the examples of construction organisations endeavouring into e-learning is rather scarce. Nevertheless, Kapp and McKeague (2002) believes that with the growing pressure from the government requiring the industries to comply with regulations and focus on effective training and education, the uptake of e-learning will grow substantially.

Within construction industry, the Occupational Health and Safety (OH&S) regulation is one of the most demanding and paramount requirements. It safeguards the health, safety and welfare of all stakeholders. In New South Wales, Australia, the recent revision in the regulations of OH&S sees a good opportunity for using e-learning, as it demands new skills, attitudes and knowledge on the part of employees and the organisations. Notwithstanding, the constant efforts by the authorities to produce a more comprehensive manual and strict penalties for infringements, accidents on construction site still occur frequently. Workcover NSW in Australia reported that in 2001, there were 139 death due to work-related injury or illness, and more than 53000 cases of serious injuries. Although this figure has fallen compared to previous years, the desired target is still not met. Therefore, in an effort to ameliorate the situation, Workcover NSW made a total of 132 recommendations to help minimise accidents occurrence (Workcover NSW, 2002). Between these recommendations, many relates to educating and training potential and existing personnel of the industry. Effective training is recognised as a major strategy to change the current condition, as CEC (1992) (cited in Gann and Senker, 1998), found that 37% of fatal accidents are attributable to poor training and site working conditions.

Although efforts of e-learning can be seen by Workcover authorities in South and Western Australia, which have some basic Web-based learning modules and graded assessment installed, it cannot be classified as truly effective e-learning of OH&S, as the learning content and flexibility is still minimal considering what the OH&S regulations has to offer. A better model of e-learning for OH&S training can be seen at Turner Construction Company of the USA where e-learning has been used extensively for training purposes (www.turnerconstruction.com).

If construction organisations wish to retain and capitalise on their intellectual capital, predominantly its human capital, the immediate need would be to ameliorate and abolished the long perceived unsafe and untidy conditions on construction sites (Mackenzie et al., 2000). Since training is recognised as the preferred way of resolution, it can be suggested that e-learning would be a more effective and optimal choice.

5. Conclusion

It is recognised that one of the ‘hottest’ issue surrounding organisations now is *organisational learning* and ultimately becoming a *learning organisation*. In addition, the two foremost emphases are on ‘people’ and ‘knowledge’. These two elements are strongly correlated, the former being the bearer and/or creator of the latter. Training and educating the human capital is seen as the most appropriate way of capitalising on the entities. The revolution of Internet technology has induced a change in the traditional training. Organisations are gradually accepting e-learning as the next era of training. The cost advantage and flexibility e-learning offers is too significant to be ignored. In conclusion, it is suggested that for construction industry to implement e-learning for its training programs. The area most suitable to commence such innovation would be on re-engineering of the Occupational Health and Safety trainings. With the rising concern over achieving the targeted minimum fatalities and injuries in workplace, e-learning could be the solution to ameliorate the adverse situation.

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