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Article *in* Procedia - Social and Behavioral Sciences · February 2015

DOI: 10.1016/j.sbspro.2015.01.1032

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INTE 2014

Professional development of project management for contractor in the construction project: a review

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Abstract

Professional development programmed can improve the effectiveness and capability of the contractor. A well organized development programme is a critical strategy for construction companies. In coming years, professional development was increasingly playing a significant role in organizational success. Based on the literature and previous research, the study explores the correlation professional development in employee training and motivation practices with task improvement in construction project. It is anticipated that the discussion of these factors will provide a basis for future strategies to promote the development of construction industry and also provide a useful reference for other industry which face similar problems in promoting the applications of professional construction project management in the construction industry. Professional development programmed had gone through the necessary project management training and sufficient knowledge, skills and experience to manage a project successfully.

Keywords: professional development, contractor, constrcution project

1. Introduction

Construction project often suffer from poor performance in terms of time delays, cost overruns and quality defects. The reasons behind these problems have attracted the attention of construction practitioners and researchers. (Hamzah et al., 2011). These problems can overcome and reduced with having a well organized and effective professional development programme. It is one of the most important assets of a company, directly impacting its fruitfulness and long term viability as a company (Ling et al., 2006). The importance of involving project management in development, planning and implementation of competency based strategies has been emphasized by researcher. Contractors Management Training Program is to increase the capacity and to ensure that contractors are truly competent in undertaking the jobs and construction activities of a project. This training program encompassed

Peer-review under responsibility of the Sakarya University
doi:10.1016/j.sbspro.2015.01.1032

technical management aspect that is closely related with construction activities, using modules developed together with the industry experts (Dai et al., 2006).

Improving productivity performance is a primary driver of the economic performance and long-term sustainable competitiveness (Palaneeswaran et al., 2006). Accordingly, a previous researcher has developed a strategy for improving productivity, which focuses on 5 key drivers: improving competition, promoting enterprise, supporting science and innovation, raising skills, and encouraging investment (Jung et al., 2006). For example, the Sector Skills Development Agency (SSDA) Strategic Plan 2005/08 (SSDA, 2005, p. 9) stated clearly that increasing participation levels in training which is one of the common skills indicators adopted by the government) by 5 per cent points could increase productivity by 4 per cent – boosting GDP by £40 billion (Lee et al., 2006).

The review was commissioned in order to assess the skills in order to remain competitive in a rapidly changing global economy. It has to be noted that this was a clear indication of the importance given to skills development and training in policy discourse as a means of improving productivity across all sectors of the economy (Chan et al., 1999). There were no similar reviews carried out with respect to the other four drivers, mentioned above, in relation to their potential impact on improving productivity performance across different sectors of the economy. There is a direct correlation between skills, productivity and employment (Nepal et al., 2006). The UK government set-up a network of Sector Skills Councils (SSCs) in 2003 in order to promote its skills agenda within the context of all sectors of the economy. It given the government's emphasis on sectored perspective in implementing its skills and productivity agenda, this research examines the trend of construction industry productivity performance in relation to its skills profile, over the period 1995-2006 – through analysing the most up-to-date published construction statistics. This study commences with a literature review, which discusses the relationship between skills development and productivity performance (Kim et al., 2000).

2. Training and Development

Training is generally stated as being a systematic and planned effort to develop knowledge, attitudes, abilities and skills through learning experience, to attain effective performance in an activity or a range of activities (Clarke., 1999). Findings from the interviews with the quantity surveyor and contractor revealed that they both considered a large portion of rework costs as attributable to the poor skill levels of the client's project manager, and of the design team and subcontractors. The main causes of rework identified as a result of poor skills were defective workmanship, disturbances in personnel planning, delays and alterations (Han et al., 2007). Managers, executives, and supervisors can have a significant constructive impact on the transfer of knowledge and skills [26]. The training of extension personnel contributes directly to the development of human resources within extension organizations (Chua et al., 2003). One of the most important factors in implementing HRM in construction industry is the need for effective training. Managers also need to develop ways to measure the performance of their workers (Chen et al., 2010). A system of performance measures is needed in order to monitor improvements among construction teams. They advice managers to display quality indicators, which creates encourages the participants to achieve improvement (Clarke., 2010).

On the other hand, the external sources of labour (subcontractors, agency temporaries, and self employed) are very common in construction industry. In fact, it is accepted that construction firms face a lot of difficulties in the training and development of labour and staff (Davidson & Rowe., 2009). Two significant methods of training construction workers are on-the-job and off-the-job training. In the traditional model of on-the-job training (OJT), to promote new practices, workers would typically receive a pre-prepared course on the new regulations, procedures, or processes, often at a different location than their place of work, and be expected to apply this abstracted knowledge later in their workplace. OJT and experience are probably the most common methods of employee development used at all levels of the organization (Fuller et al., 2011). Where organizations utilize a large number of skilled bricklayers, carpenters, plumbers, armature workers, welders, etc. they may utilize a special type of OJT called apprenticeship training. This training is mostly done under standards which are established (i.e. curriculum, number of hours, and affirmative action goals) by governmental parts (Henderson., 2008). Popular OJT methods include job rotation and understudy assignments. Job rotation involves lateral transfers that enable employees to work at different jobs. Both job rotation and understudy assignments apply to the learning of technical skills (Huff., 2008). Interpersonal and problem-solving skills are acquired more effectively by training that takes place off the job.

3. Performance improvement

The definition of performance is likely to encompass multiple traits and behaviours, such as effective communication with colleagues, technical competence and knowledge level. It is not possible to distinguish between these two dimensions of performance in the quantitative research discussed in this review (Jha & Iyer., 2007). However, issues of performance in the construction project seem to arise particularly frequently in interviews with contractors about the impact of low basic skill (Koskinen., 2011). Further research is required to distinguish different dimensions of performance within the contractor, and their varying relationships with basic skills. This might include evaluating the relevance of different aspects of performance relating to basic skills identified in the construction research (Kwak & Anbari., 2009). For example, a survey of construction employers providing workplace education programmes identified a number of distinct dimensions to the impact on performance, many of which seem applicable to the contractor context: Improved quality of work; Better team performance; Improved capacity to cope with change in the workplace; Improved capacity to use new technology; Reduced time per task; Reduced error rate (Ling & Tiong., 2008).

Project Academia is scheduled to supporting project managers in their daily work, and highlighting the importance of commitment. Superiors are involved in the applying process by proposing and nominating participants, and following up their achievements in the training program (Morris., 2010). Participants of each Project Academia training program come from different departments that give a fruitful opportunity to share good practices, lessons to learn, and collegial discussions. Every participant makes a project work from actual and/or strategic theme (Müller & Turner., 2010). The project work results are shared with colleagues and management. Some of the destruction is said to be due to inefficient design and lack of standard materials while many of the buildings with standard materials and proper design were destroyed because of low quality of construction (Tan et al., 2008). This places blame on the lack of skilled labour in construction projects. However, most of the researches conducted on the lack of proper design and materials, and little attention was given to unskilled workers in construction sectors. Therefore, it seems human resources, particularly in the area of skilled labour, play a crucial role in the quality of construction projects (Wong et al., 2010).

Human resource management (HRM) has been broadly defined as a field of organizational activity and professional practice. It has remained a complex and obscure entity, variously interpreted by practitioners and researchers. HRM as covering functions related primarily to training, career development, organizational development, and research development. HRM as an academic discipline includes the development of knowledge and expertise, and the enhancement of performance nowadays. A forceful HRM system is also the most valuable asset of construction companies, as an enterprise's productivity is closely correlated with its strategies (Zwikael and Unger., 2010).

The development of people, their competencies and the process development of the total organization are the main concerns of HRM. With rapid changes in technology, worker's needs, current market, and competitive environment, planning for human resources have become an important and challenging task for development. HR planning involves plans for future needs of employees, their required skills, acquisition of employees, and personnel development (Gale & Brown., 2003). A quality HR program, personnel examination, and HR appraisement are the three basic areas of concern for modern enterprise HRM. The purpose of HRM is to enhance learning, human potential and high performance in work-related systems. This research evaluates the execution of training and motivation methods in HRM practices as well as the performance of the respondent companies (Maloney., 2003) . On the other hand, HRM can be conceptualized as all those activities that seek to facilitate all forms of learning and development at all levels within organizations. Training and development of HR becomes the strategic component of the program. How to treat, determine, and develop the value of HR, has become an important area of research in the strategic management of an enterprise (Torbica., 2001).

In a training context, motivation can influence the willingness of an employee to attend the training program, to exert energy toward the program, and to apply what they learn in the program onto the job. To encourage worker participation, managers are advised to use a system that identifies and rewards workers who do a good job (Leung et al., 2004). For example, construction workers can receive a financial bonus for identifying ways to improve the quality of their company's operations; the success of a construction organization largely depends upon the quality and morale of its people. Thus, human assets are becoming the most important wealth of an organization if they are adequately nurtured and their potential is efficiently developed. Companies should ensure that all learning achievements by their staff are recognized by publicity, appropriate promotion, and reward [48].

Many cases can be found that show successful construction organizations making use of the principles of training and motivation in HRM practices (Brown & Adams., 2000).

4. Human resource for construction project

Construction projects have a various types of worker, such as engineers, project managers, and labour. Previous research indicates that there were many damages to the buildings due to bad quality of construction. It could be due to the lack of sufficient supervision, low quality materials and unskilled labour (Odusami et al., 2003). According to Yang et al., 2006), it shows that unskilled labour was the main reason for the low quality of construction of many buildings which were destroyed. It seems necessary to research the lack of skilled workers in construction projects in different parts. In turn, this research concentrates on unskilled labour, and the methods, barriers, and practical solutions of training them. Most of the respondents (69.9%) were in private companies. In contrast, 17.3% were in governmental companies, 1.9% in semi-governmental companies, and the rest (3.8%) in other areas. In addition, most of them (43.6%) were contractor companies, 23.6% were developers, 20% were consultants, and 12.7% were the project management companies. Consequently, most of the companies in this survey are private and contractor companies. In addition, the occupations of the respondents were 36.2% supervisors, 5.2% counsellors, 22.4% project managers, and 13.8% company managers. Other responsibilities (22.4%) make up a large group of the respondents, as they did not mention their responsibilities. The results show that most of the respondents in this survey are supervisors who are directly related with construction workers. Therefore, their responses and ideas have a momentous effect on this survey and confirming the credibility of the results of the study. During the survey, the respondents were asked about their programs for training the labour (Hodgson., 2005). The findings show that the percentage frequencies of the companies training programs were: 26.5% of the companies had specific training courses and programs for their labour, and 73.5% declared that there were no specific training courses or programs in this regard. According to the declaration of respondents, the most important company training programs were professional short-time courses on the site, sending some of the labour to construction industries training centres, and providing supervisors to train some of the labour during the construction. According to Bryde., 2005, some of the fundamental problems and barriers in order to have integrated training programs for the staff and workers are as follows: high expenses of construction training courses, financial problems, short-term contracts of the workers, large number and various types of construction learning points, low level of labour education, lack of incentive among the workers for training, inadequate relations between the contractor or client and the labour, little attention from the client on the importance of skilled labour in projects, and time-consuming. Some of the crucial problems of the workers are low level of education, low income, lack of motivation, and family struggles. These barriers play an important role in inhibiting their training and learning. Most of the respondents believed that more than one of these items affected the training of labour. It shows 26.8% of the respondents believed that the low level of education of the labour force is the most important barrier to train them. Also, low income by 25%, no motivation (21.4%), and family struggles (17%) were the other important barriers according to the respondents' views (Belout & Gauvreau., 2004). In addition, some of the respondents mentioned other problems and barriers in training labour such as low culture, inadequate obligation to train labour on the government's part, and low control by the government ones the use of skilled or unskilled labour in projects. Unfortunately, the incomes of the workers are low and most of them have populous families with high Regarding Table 3, nearly 53% of the respondents stated that they faced a lack of skilled labour in their projects while less than 12% did not face the problem. This statistic shows that the construction projects in Mashhad do not have enough skilled labour.

5. Limitations and future research

The current study has some limitations that offer an agenda for future research. As the research has been confined to quantitative techniques, a large-scale follow-up survey would be useful to find out which of the identified training and motivation methods have the proposed connection with construction workers. A range of training and motivation methods in HRM practices have been revealed that play a role, but which methods are most relevant is not yet clear. It seems unlikely that all practices can be treated as atomistic ingredients that have an additive enhancing effect on idea generation and/or application on the quality of construction. It is necessary to say that, the questionnaire was limited to supervisors, counsellors, project managers, and company managers, as a source of

relevant respondents. Although, some respondents elaborated their experiences as an employee or construction worker, additional questionnaires and/or interviews with subordinates may provide a more comprehensive picture of relevant training and motivation methods in HRM practices. Thus, future research should also try to address how companies and governments adapt to and even shape the environmental and organisational settings in such a way that the context optimally stimulates workers motivation and participation in training courses and the corresponding effects on increasing the quality of construction.

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