An Empirical Study On Training Provision For Knowledge Management In The Kingdom Of Saudi Arabia's Construction Industry

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Abstract

The growing popularity of knowledge management (KM) in the construction industry has, unfortunately, not been matched by parallel empirical research in training and benefits of KM for construction industry in the Kingdom of Saudi Arabia (KSA). This paper discusses the nature of training provisions for KM that currently exists in KSA construction industry. Given the relatively new and unexplored nature of the research problem, qualitative research method was adopted to collect and analyse data. Results are based on the analysis of data from 16 professionals from 10 construction organisations. The data was analysed using content analysis. This paper concludes that training interventions are a complex and context-embedded activity. The current study results suggests that for effective implementation of KM strategies, there is an urgent need for KSA construction industry to develop and deploy appropriate KM related management training programme(s). Leadership plays an important role in breaking down barriers in achieving KM strategies. Therefore, there is an urgent need to develop and deliver a bespoke training framework to address, improve and measure the effectiveness of leadership skills for implementing KM related change initiatives in the KSA construction industry.

Keywords

Construction industry, knowledge management, training, Kingdom of Saudi Arabia.

1. Introduction

Knowledge management (KM) is an emerging field that has attracted attention and support from academics and practitioners. Many construction organisations are now engaging in KM in order to leverage knowledge both within their organisation and externally to their shareholders and customers. The Rethinking Construction report – "Respect for people: A framework for action" (Rethinking Construction, 2002) recommended that every firm and project should review it's induction training, so that the whole workforce receives details of organisational structure, immediate and long term aims, an explanation of standards and practices, rewards and penalties, and is provided with support through an effective mentoring approach. Hughey and Mussnug (1997) noted that the underlying aim of all employee training is to increase efficiency. Mathieu *et al.* (1992) stated that individuals rely on training to improve their current skills and to learn new skills. Muscatello (2003) emphasised that little has been written about the use of "knowledge" to directly

serve the training needs of the firm. It is necessary to understand the difference between training and education prior to the need for training in knowledge management initiatives in the construction industry (Bordeianu, 2015). In distinguishing training from education, Morris (1971) considers training as the "use of specific learning, often with the use of techniques that can be identified and continually improved". For education, he noted that it is "a broader process of personal change in abilities and attitudes which may take place independently of its application of work".

The Oxford English Dictionary (2016) defines training as teaching (a person or animal) a particular skill or type of behaviour through regular practice and instruction. The operational definition for training in this study adopts Armstrong's (1996) definition, which purports that training usually refers to learning a specific task or job, the skills and behaviours of which are specifically defined, whereas development is an ongoing process involving changing people. This implies that training is more of a mechanistic process, which is job-centred, while development involves educating the workforce, which is person-centred (Fryer, 2004). It is important to note this distinction in order not to use the terms interchangeably resulting in confusion.

Anecdotal evidence and empirical results from Curran and Stanworth (1981) suggest that the lack of training in firms hinders growth. By reading a document or manual about their jobs and the organisation, and by reflecting upon it, trainees can internalise the explicit knowledge written in such documents to enrich their tacit base (Nonaka and Toyama, 2003).

Thiry (2004) suggests that training programmes are embedded into a complex context where cultural and competitiveness issues are often at odds with each other. Ulrick (1997) suggested that organisations need to be able to capture the tacit knowledge of its employees and to do this effectively, it is argued that management needs to involve and engage employees fully in the activities of the organisation. For this study, Knowledge Management (KM) can be defined as an essential part of the long-term strategy of any organisation for retaining the complete knowledge of their every aspect. Various construction organisations in Kingdom of Saudi Arabia (KSA) are engaged in the KM strategies for leveraging knowledge within the organisation and across the value chain. For successful KM implementation, it is essential for the KSA construction organisations to establish knowledge networks and develop an effective mechanism for knowledge mapping, capturing, and sharing (Swieringa and Wierdsma, 1992).

Considering the prevailing and emerging political and economic conditions in KSA, the Vision 2030 presents several upcoming opportunities for the growth and development of the country. Such opportunities also highlight the need for inculcating effective KM practices within the organisations to enhance the skills, ability and knowledge among the employees to be able to take advantage of the growth opportunities increase their profitability and sustainability (Fakeeh, 2016). In this respect, the Vision 2030 emphasises three pillars, firstly, the position of KSA to be central to the Arabian and the Islamic countries; secondly, determination of the country to emerge as a global investment powerhouse and transform the unique strategic location of the country into an international centre that connects the three continents of Europe, Asia and Africa (Construction Industry Training Board, 1988). The focus in these areas opens numerous opportunities of growth and expansion for the organisations, which can capitalise on such opportunities by harnessing knowledge among the employees (Fakeeh, 2016).

The construction industry of KSA is able to obtain the complete knowledge of their workers. The management of construction industry is completely engaged and involved in all the organisation's activities. The industry follows the process of capturing and gathering essential business knowledge from groups and individuals for improving the competitiveness of the organisation (Small Business Gateway, 2003). This KM process of the KSA construction industry offers various opportunities to these organisations for improving the methodologies of their projects and reducing costs and time of construction work. Thus, the KM is proved to be highly essential for the growth of organisations of Saudi Arabia (Whittom and Roy, 2009). In consideration of emerging Saudi economic and political conditions, the Saudi Vision 2030 provides various opportunities for the development as well as the growth of this country. These opportunities are the outcome

of efficient practices of knowledge management within the construction and other industry of Saudi Arabia.

Based on the literature review on training, there seems to suggest that there is lack of training geared towards KM initiatives in the KSA construction industry. Therefore, empirical results on the nature of training for KM in the KSA construction industry is analysed and reported in this paper. Prior to it, research methodology is discussed.

2. Research Methodology

Gable (1994) argued that an explorative qualitative approach is better suited to study a nascent research field and gain valuable initial insights, rather than large scale surveys. Insights from initial expert interviews also make a strong case against large scale quantitative surveys, due to aversion in responding to questionnaire surveys, and a high tendency to give socially desirable responses, thereby, threatening the validity of responses (Collis and Hussey, 2003). Given the complexity of KM issues and the paucity of comparable research in the area, qualitative research methodology was adopted. Primary data was collected through semistructured interviews. Indeed, semi-structured interviews were selected, due to flexibility they afford whilst still allowing detailed responses (Smart et al., 2014). A purposive sampling technique was used in order to achieve representativeness. A purposive sampling technique involves drawing samples that are both easily accessible and willing to participate in a study (Tashakkori and Teddlie, 2010).

To ensure greater dependability and transferability (Creswell, 2009), a total of 16 professionals from 10 KSA construction organisations were interviewed. The sample included directors, advisers and managers responsible for KM strategies implementation in their respective organisations. The interviews lasted between 30 and 90 minutes. The format of these interviews was face-to-face, and the transcripts were recorded and supplemented with field notes as appropriate. The analysis of the interviews was undertaken using Content Analysis.

Fraenkel and Wallen (2003) noted that content analysis is a study of textual messages of human behaviour in an indirect way. This helps researchers generalise findings, predict the future, understand attitudes, values and cultural patterns of an organisation or an industry or a country. In the study, coding of the transcribed documents involved open coding of meaning units, that is, words, phrases, sentences, paragraphs, which essentially involved labelling concepts. The emerging concepts were mapped into themes. Threats to validity were minimised through triangulation of data collection methods (interviews, internal and external documents) and verification of the initial thematic codes by participants, where they judged the accuracy of data collected, though not its conclusions. The unit of analysis adopted for this study was the KSA construction industry, and the embedded unit of assessment was the 'individual employee'.

3. The nature of training provision that currently exist for KM in KSA

During the semi-structured interviews in this current study, the subject of training was raised, i.e. "in your organisation, is there any specific KM specific training programme in place"? The interviews with 16 professionals from 10 construction organisations revealed seven types of KM specific training strategies adopted in the KSA construction organisations (see Table 1).

In this study, 63% (10 of the 16) of the interviewees asserted that they had a training programmes specifically designed for KM implementation. Most often cited topics under the KM training programmes include: drivers for KM, strategies, sharing knowledge, identifying knowledge and storing knowledge. The interviewees also revealed instances where members of staff had to submit reports after attending external training. In one of the organisations, external training was encouraged, for which employee's

paid 20% of the training fee and the remaining 80% was paid by the organisation. For instance, one of the interviewees in the current study had attended the training course titled, "improving business performance through knowledge management initiatives". The interviewee further noted that he now fully realises the

importance of knowledge and the amount of key knowledge available within his organisation. He also thought that training within organisation, for KM, is very important and would be adopting mentoring as part of knowledge capture initiative.

SI No	Current KM specific training strategies	Total number of intervieweescited (N = 16)	Percentage of interviewees cited (%)
1	Training programmes specifically designed for KM	10	63%
2	Communication	9	56%
3	Time management skills	6	37%
4	Training on-the-job	6	37%
5	Mentoring	3	19%
6	Leadership skills	3	19%
7	Client management	3	19%

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In other organisation, one of the interviewees suggested that they had in-house training for KM. The UK based Construction Industry Training Board (1988) (CITB) study which shows that most construction organisations prefer in-house training courses to external courses. Findings from this study suggest that nearly 28 years after the CITB study, the attitude towards in-house training has not changed. Three reasons given for in-house training on KM are:

- \Box In-house courses are cheaper than external courses
- □ In-house courses are directly geared towards meeting the objectives/needs of the organisation
- □ There seemed to be very little or no external courses focused on KM

However, 37% (6 of the 16) interviewees stated that they did not have any training (a specific to KM). The reasons stated were: KM in construction industry is a specialised area and to the best of their knowledge; no external training providers offered courses in this area; Professionals had to make a case why particular training was important and how it would help the organisation. Hence, 6 interviewees said that they lacked the awareness of KM benefits and did not present a case to their management to attend KM training course. For instance, one of the interviewees stated that:

"Employees training programmes demand a significant investment in terms of both financial and human resources. Training can also take up a great deal of time which could adversely effects schedules and deadlines".

This was further emphasised by another organisation's manager who noted that training was a waste of time and did not feel the need to attend training because he felt he was too busy dealing with urgent tasks for the day-to-day survival of his organisation. Furthermore, interviewee noted that professionals in the construction industry are usually recruited because they are experienced and familiar with the industry; therefore there was no need for training specific to KM.

A literature review indicated that training for KM in specific business settings, had not been fully developed (Muscatello, 2003). The current study results suggests that for effective implementation of KM strategies, there is an urgent need for KSA construction industry to develop and deploy appropriate KM related management training programme(s). The challenge, therefore, is for business schools and training consultants to bridge the wide gap in the market place. Continuing Professional Development (CPD) programme(s) and executive training programme(s) are valuable ways to raise knowledge management

awareness. Education and training programmes should be re-orientated to cover aspects of knowledge, data and information; KM processes, technology and people; managing construction stakeholder knowledge; critical success factors; and benefits of KM strategies. The education and training should be dynamic and adaptable to the increasing changing needs of business, society and people at large.

In this study, 56% (9 of the 16) interviewees noted that they had a communication related training programmes. Most of these interviewees noted that communication training on the job is the most crucial factor. The interviewees stated that a wide range of communication related training programmes are undertaken by them to train the manager and the staff members within the organisation. Such training is said to be helpful for improving the skills and knowledge of the employees and improves their overall performance. For instance, one of the interviewees stated that:

"we have a perception that investment in communication skills will enables organisations to get an edge among the clients base."

Analysis of the above statement reveals that development of the communication skills and abilities of the employees is directly related to overall performance and client satisfaction for the organisation.

In this study, 37% (6 of the 16) interviewees noted that they had a time management related training programmes. For instance, one of the interviewees stated that:

"Properly implemented time management training programmes can help in harnessing their skills, building confidence and creating well-developed client services".

Analysis of the above statement reveals that development of the time management skills and abilities of the employees is directly related to overall performance and client satisfaction for the organisation.

The study findings are also in alignment with the literature which states asserts that employee communication and time management training pays a highly significant role in the improving the performance and the productivity of the employees. Such consistent training programmes also serve to be useful in enhancing the knowledge, attitudes of the employees, skills, thereby encouraging the growth and development of the employees skills (Nassazi, 2013; Hafeez and Akbar, 2015; Facteau, et al. 1995.).

In this study, 37% (6 of the 16) interviewees noted that they had a on the job training and 19% (3 of the 16) interviewees noted that they had a mentoring scheme. For instance, one of the interviewees noted that:

"Some of the most critically important training programs include communication skills, leadership training, mentoring and on the Job training".

Similarly, other interviewee stated that:

"On the job training, mentoring, communication skills, customer service etc. are the training and education programs we have for the employees within our company. Our organisation beliefs on the job training can provide employees with more knowledge hence supports it."

The study findings thus indicate the application of on the job training, mentoring and skills development as the key training activities currently undertaken by the organisations to impart skills and knowledge to the employees. For instance, the examination of the literature on the role of mentoring reveals that it serves as a highly pertinent strategy to improve the performance of the employee and the organisation. The literature has also highlighted that unlike other training methods, mentoring relationship with the manager enables a close supervision that helps in developing skills, gaining knowledge and address gaps in the current ability (DeMik, 2007; OPM, 2008; Elnaga and Imran, 2013; Allen et al., 2004). These findings indicate the significance of mentoring for improving the performance of the employees and

supporting the learning and development of motivated employees who are seeking to gain professional and personal growth.

The findings of the interview further revealed that leadership skills (19%) are also considered to be current KM specific training programmes. Leadership skills development is as a key training method currently adopted by the small number of interviewed organisations. The literature also identifies leadership as an effective method as it encourages the employees to inculcate essential skills related to decision making and exploring adequate solutions for the emerging challenges with higher efficiency (Jahenzeb and Bashir, 2013; Kraus and Wilson, 2012). Based on these findings, it can be interpreted that leadership skills are useful and efficacious methods currently adopted by the organisations in their training programmes that has a positive impact on KM within the KSA construction organisations. However, the lack of leadership skills is one of the most important challenges organisations face in implementing KM related change initiatives.

In this study, 19% (3 of the 16) interviewees noted that they had a client management related training programmes which is of the crucial factors that influence KM within an organisation. In this respect, one of the interviewees noted that the role of client/customer services as a part of training programme, and thus makes a key impact on the contribution of the KM initiatives. In this respect, the literature also confirms with these findings and asserts that effective training in delivering high level client/costumer service plays a key role in enhancing KM within an organisation and thus highlights the significance of the role of human resource on KM (Clardy, 2012; Baldwin, Magjuka and Loher, 1991). Further, the findings of the interview also revealed that the KM has a significant impact on the employees in gaining skills for providing efficient client/customer services and thus enhances the overall productivity of the organisation.

4. Conclusions

The paper indicates that training interventions are a complex and context-embedded activity. It requires the consideration of different issues discussed in a holistic way. The current study results suggest that for effective implementation of KM strategies, there is an urgent need for KSA construction industry to develop and deploy appropriate KM related management training programme(s). The challenge, therefore, is for business schools and training consultants to bridge the wide gap in the market place. Continuing Professional Development (CPD) programme(s) and executive training programme(s) are valuable ways to raise knowledge management awareness.

Leadership plays an important role in breaking down barriers in achieving KM goals – barriers such as tunnel vision, past practice, old ideas and cultural frameworks that together combine to discourage new visions of the future. Leadership is about preparing organisation with a KM vision and values that resonate with the team, all employees, and key stakeholders. Therefore, there is an urgent need to develop and deliver a bespoke training framework to address, improve and measure the effectiveness of leadership skills for implementing KM related change initiatives in the KSA construction industry.

The KM should not only focus on the specific knowledge to be captured and transferred between individuals but should also address strategic concerns at group and organisational levels. Therefore, construction organisations in the KSA must also hone in on these basic modern day truths and implement KM training programmes which focus both on tacit and explicit knowledge. To gain competitive advantage, it is necessary for KSA construction industry to recognise and use a blend of ICT and non-ICT based KM techniques and technologies. It is advisable to use conventional, simple, low cost, and easy to use with minimum training needs KM techniques and technologies such as mentoring and on-the-job training strategies.

5. References

- Allen, T.D., Poteet, M.L., Eby, L.T., Lentz, E. and Lima, L. 2004. "Career benefits associated with mentoring for proteges: A meta-analysis". Journal of Applied Psychology 89, pp. 127-136.
- Armstrong, M. 1996. A Handbook of Personnel Management, 6th Ed. London: Kogan Page.
- Baldwin, T.T., Magjuka, R.J. & Loher, B.T. 1991. "The perils of participation: effects of choice of training on trainee motivation and learning". *Personnel Psychology* 44, pp. 51-66.
- Bordeianu, O.M. 2015. The role of knowledge management and knowledge management strategies within learning organisations. *Ecoforum* 4, pp. 147-154.
- Clardy, A. 2012. The Management Training Tool Kit: 35 Exercises to Prepare Managers for the Challenges They Face Every Day. New York: Pearson Publications.
- Collis, J. & Hussey, R. 2003 Business Research: A Practical Guide for Undergraduate and Postgraduate Students, 2nd Ed. New York: Palgrave MacMillan
- Construction Industry Training Board. 1988. Survey of supervisory and management training needs in the U.K. Construction Industry 1(2).
- Creswell, J.W. 2009. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches, 3rd Edition. California: Sage Publications.
- Creswell, J.W. 2014. Research Design: Qualitative, Quantitative, and Mixed Methods Approaches. New York: Sage Publications.
- Curran, J. & Stanworth, J. 1981. "The social dynamics of the small manufacturing enterprises". *Journal of Management Studies* 18(2), pp. 141-158.
- DeMik, J.R. 2007. Coaching, counselling and mentoring: A strategic need in training and development. [Online]. Available at: <u>http://files.eric.ed.gov/fulltext/ED504505.</u> [Accessed 15th November 2016].
- Elnaga, A. & Imran, A. 2013. The effect of training on employee performance. *European Journal of Business* and Management 5(4), pp. 137-147.
- Facteau, J.D., Dobbins, G.H., Russell, J.E., Ladd, R.T. & Kudish, J.D. 1995. "The influence of general perceptions of the training environment on pretraining motivation and perceived training transfer". *Journal of Management* 21(1), pp. 1-25.
- Fakeeh, K.A. 2016. KSA 2030 Vision (Kingdom of Saudi Arabia's 2030 project) and its focus on families and students. *International Journal of Computer Applications* 149, pp. 46-48.
- Fraenkel, J. R., and Wallen, N. E. 2003. How to Design and Evaluate Research in Education, 5th Edn. New York: MacGraw-Hill.
- Fryer, B. 2004. The Practice of Construction Management, 4th Edition. London: Sage.
- Gable, G.G. 1994. "Integrating case study and survey research methods: an example in information systems". *European Journal of Information Systems* 3(2):pp. 112-126.
- Hafeez, U. & Akbar, W. 2015. Impact of Training on Employees Performance. [Online]. Available at: <u>www.macrothink.org/journal/index.php/bms/article/download/7804/6355.</u> [Accessed 15th November 2016].
- Hughey, M. & Mussnug, N. 1997. "Designing effective employee training programmes". *Training for Quality* 5 (2), pp. 52–57.
- Jahenzeb, K. & Bashir, N.A. 2013. Training and development program and its benefits to employees and organisation: A conceptual study. *European Journal of Business and Management* 5(2), pp. 243-252.
- Kraus, A.J. & Wilson, C.N. 2012. Leadership development for organisational success. [Online]. Available at: <u>http://www.siop.org/WhitePapers/Visibility/LeadershipDevelopment.pdf/</u> [Accessed 15th November 2016].

- Mathieu, J.E., Tannenbaum, S.I. & Salas, E. 1992. "Influences of individual and situational characteristics on measures of training effectiveness". *Academy of Management Journal* 35(4), pp. 828-47.
- Morris, J. 1971. "Management development and development management". *Personnel Review* 1(1), pp. 30-43.
- Muscatello, R. & Joseph, A. 2003. "The potential use of knowledge management for training: A review and directions for future research". *Business Process Management Journal* 9(3), pp. 382-394.
- Nassazi, A. 2013. Effects of training on employee performance. [Online]. Available at: <u>http://theseus32-kk.lib.helsinki.fi/bitstream/handle/10024/67401/THESIS.pdf?sequence=1</u> [Accessed 15th November 2016].
- Nonaka, I. & Toyama, R. 2003. "The knowledge-creating theory revisited: knowledge creation as synthesizing process". *Knowledge management research and practice* 1(1), pp. 2-10.
- OPM. 2008. Best practices: Mentoring. [Online] Available at: <u>https://www.opm.gov/policy-data-oversight/training-and-development/career-development/bestpractices-mentoring.pdf/</u> [Accessed 15th November 2016].

Rethinking Construction, 2002 Achievements, Next Steps, Getting Involved: Report of the Construction Task Force [Accessed 15th November 2016]

Small business gateway, 2003

Smart, D. W., Stojanovic, T. A. and Warren, C. R. (2014) Is EIA part of the wind power planning problem?,

Environmental Impact Assessment Review, 49, pp.13-23.

Swieringa, J. & Wierdsma, A. 1992. Becoming a Learning Organization. Wokingham: Addison-Wesley. Tashakkori, A. & Teddlie, C.B. 2010. SAGE Handbook of Mixed Methods in Social & Behavioral

Research, 2nd Edn. California: Sage Publications.

The Oxford English Dictionary, 2016. [Online] Available: <u>http://www.oed.com/</u> [Accessed 15th November 2016].

Thiry, M. 2004. How can the benefits of PM training programs be improved. *International Journal of Project Management* 22, pp. 13-18.

Ulrick, D. 1997. Organising around capabilities. The organization of the future. New York: Free Press. Whittom, A. & Roy, M.C. 2009. Considering participant motivation in knowledge management projects.

Journal of Knowledge Management Practice 10.