

# THE ROLES OF LEADERSHIP MANAGEMENT IN PROMOTING SUPPLY CHAIN MANAGEMENT

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## **Abstract**

*The construction industry plays an important role in any country's economic development and constitutes an important element of the Malaysian economy. One of the crucial factor accelerate the productivity of the industry is the transportations sector. Therefore, the adoption Supply-chain management (SCM) is a great opportunity for the industry to reduce costs and time, and thus improve revenues. However, previous studies identified one of the obstacles in promoting SCM in the industry is the less understanding of SCM among the top management. Thus the leadership of the industry should play a crucial role to promote the application of SCM in the industry. Therefore this study is to investigate the role of Management Leadership (ML) in creating change for innovation in the industry. Results show less support from top management and the lack of knowledge about SCM or its benefits identified as a hurdle to the industry. Moreover, despite its potential, SCM will not be a panacea for all the problems of the industry.*

**Keywords:** *Logistics-construction industry; supply chain management; leadership management.*

## **Introduction**

In many countries' economic development, the construction industry plays an important role in establishing infrastructure which contribute directly to the economic growth. There is a positive correlation between construction output and GDP. In accelerating the sustainable

growth of the industry, a reliable support of logistic sector was identified crucial by many studies.

In integrating the logistic aspect in production Supply Chain Management (SCM) is a great opportunity for the industry primarily to reduce costs and time, and thus improve revenues and still make the products more worth their prices. Also product development and marketing for construction material in the supply chains could be made more effective and efficient. Obstacles for supply chain management approaches are e.g. the poor level of logistical competence, the partly limited competition, the strong project focus as well as the attitudes and traditions in the construction industry.

However, the industry has been slower to employ the concept, which has been embraced elsewhere, perhaps because of the unique context in which SCM collaboration must be applied, i.e. an organisational structure consisting of individual elements in the nature of a conglomerate, termed 'the temporary multiple organisation (Cherns and Bryant, 1983). According to Vollman et al. (1997) hold that construction SCM is increasingly seen as a set of practices aimed at managing and co-ordinating the entire chain from raw material suppliers to end customers. Bontekoe (1989) developed a list of 10 bottlenecks that hamper the application of logistics in construction which may also have application for SCM. These include a need for extensive preparation for approval procedures, conflicts of interest between organisations within the project organisation and a need for co-operation with public utilities.

Bowersox et al. (1999) suggest that 'leading logistical practice can be generalized across industries, across the supply chain, and across cultural boundaries. Mabert and Venkataramanan (1998) endorse this view, noting that SCM is relevant to small, single-location organizations as well as large multi-site ones. Lambert et al. (1998) observe that the supply chain is not a chain of businesses with one-to-one business-tobusiness relationships but a network of multiple businesses and relationships. Thus, SCM deals with total business process excellence and is a new way of managing the business and its relationships with other members of the supply chain. The objective of SCM is to maximize competitiveness and profitability for the company and the supply chain network including the end customer.

The integration of the supply chain should aim to boost efficiency and effectiveness across all supply chain members. This aspect is most relevant to construction. SCM should be considered as essential to the performance and competitiveness of the construction enterprise considering the variety of materials, products and components it requires on each project, the range of subcontracting companies it normally engages, and the variety of consultants it works with. The traditional approach to business has several discernible elements: win and lose arrangements; a focus on negative issues; uncertainty; a minimal exchange of information; the buying of supplies of each item from many companies to maintain price 'competition; and an atmosphere of fear, dishonesty and frustration.

### **Leadership in Construction Industry**

In construction industry there is often a continuous dynamic equilibrium of several 'forces', controlled by several stakeholders in this industry (e.g. contractors, clients, governments, consultants, banks, insurers, etc.). Due to several influences, construction industry nowadays increasingly needs to adapt itself towards the actual situation. This means there is a continuous need for review a company's strategy to the existent world around it. In general here, leadership

is considered as the ability to build up a strong construction business. This part will elaborate the scenario of construction companies which being lead into this new phase, having different styles of leadership.

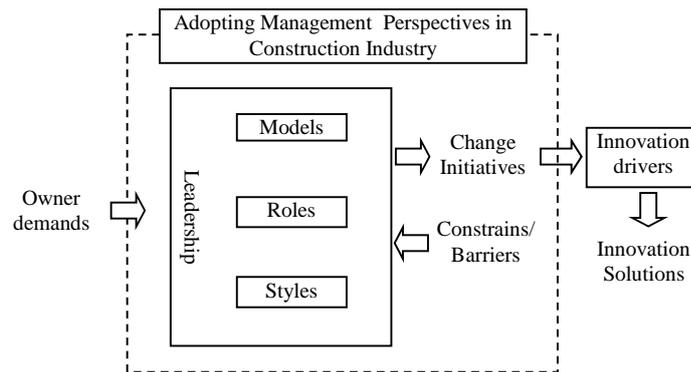
Conceptually, in construction activities the term management leadership refers to the involvement of top management to inform employees that business survival does depend on adapting supply chain to be flexible to customer needs (Min and Mentzer, 2001). They takes action to inform employees to value supplier-customer relationship and shares tactical or strategic supply chain information and provides various education opportunities (Jaworski and Kohli, 1993). Fawcett and Magnan (2002) discussed the importance of managers to understand supply chain management dynamics well before re-engineer any supply and logistic practices. They have argued that management involvement and support is required to promote harmony between supplier and customers for a value chain to be flexible. Management leadership in the strategic planning process will consider decentralization of operations, global outsourcing and strategic alliance with partners to achieve flexibility, speed, proactive and reduce time to market (Gunasekaran et.al, 2008). Rinehart and Ragatz (1996) pointed out that communication skills, managing conflict and resources coordination are important to facilitate the interaction of the players in promoting the implementation of supply chain.

Another factor is related to organizational support to employees for the purpose of improving employees' motivation and working spirit in performing their jobs (Molander and Winterton, 1994), and Ellinger (2000) cited that employees get an indirect feedback on their performance through the organization's support, which is delivered to them in the form of rewards and incentives. The human resource capability factor also related to the organization's values that are followed by employees in their daily operations. According to Molander and Winterton (1994), values are made up from the traditions, habits, and ways of organizing and patterns of relationships at work, which are reflected in the organization through its structure, rewards systems, policies and development processes. In the context of SCM, understanding values among players in the supply chain are important in order to develop and sustain a good relationship among them. Burt *et al.* (2003) stressed that the issue, which could arise in the supply chain relationship is organization incapability to understand values of other players in the supply chain, which could reflect on the supply chain effectiveness due to different perceptions between one another.

In general, the industry is most characterized by fragmentation and poor co-ordination among project participants which leads to inefficiency, waste, and quality and safety problems. The adoption of supply chain management (SCM) in the industry is viewed as a strategic tool which is vital to corporate competitiveness and portability in today's operating environment (Clough, R. H., Sears, G. A., and Sears, S. K., 2000). It can improve efficiency and productivity, and reduce overall operating costs. SCM is neither widely known nor significantly applied in the construction industry. Like the traditional approach to business for which SCM offers an alternative, in Malaysia construction, business relationships are based on narrow, short-term interests, and win-lose arrangements. The previous studies showed that such practices are pertinent to the possibility of using SCM to improve the performance of construction activities especially their environmental performance.

Management leadership refers to top management to inform employees that business survival does depend on adapting supply chain to be flexible to customer needs. Top management takes action to inform employees to value supplier-customer relationship. It is importance of the top management involvement and its support is required to promote harmony

between supplier and customers for a value chain to be flexible (Farr, J. V., Walesh, S. G., and Forsythe, G. B., 1997). Management leadership in the strategic planning process will consider decentralization of operations, global outsourcing and strategic alliance with partners to achieve flexibility, speed, proactive and reduce time to market.



**Figure 1:** The role of leadership in promoting change for construction innovation (SCM)

## Methods

In conducting this study, several studies were reviewed in order to design the most appropriate methodology. Most of the studies have been general without focusing on the SCM practices in construction activities. Therefore, the study first reviewed the present situation of SCM in other areas like manufacturing and subsequently investigated how SCM can be applied in construction activities. Several approaches had been identified.

There are four main techniques by which the data can be collected which are questionnaire, interviews, observation, and documentary sources. This study mainly generated data from two types of sources which were primary and secondary sources. Primary data were collected and obtained from a field survey, while secondary data mainly came from books, reports, seminar papers, journals, periodicals, and government publications.

Stage 1: The Qualitative Path \_ The qualitative path is a more appropriate approach since its methodology focuses on being there with those involved in the industry and observing the natural setting of the industry. Therefore, a series of interviews conducted through a semi-structured interview. The goal is to explore the studied area more openly and allow researcher to express their opinions and ideas in their own works (see Esterberg, 2002; Hague, 2003; Denzin & Lincoln, 1998).

Stage 2: The Quantitative Path\_The quantitative approach is identified with several paradigms termed as positivism, logical empiricism, and realism. In this case, the main intention would always be aligned with an effort to add to the body of knowledge by

building formal theory that explains, predicts, and controls the phenomenon of interest. It is expected that the above strategies outlined for both Qualitative and Quantitative research paths provide ample information about SCM practices which would lead to great assistance for the research team to work to achieve the project objectives.

## **Scope and Data Collection**

Respondents for the survey conducted in this study cover all categories of players in the Malaysian construction industry, namely:

- i. contractors,
- ii. developers, and
- iii. suppliers.

In achieving the objectives of this research, there are several barriers that have to be overcome so that the raw data that have been gathered can be stably, coherently, and validly interpreted. According to Wright (1997), these barriers that have been identified to include the uncertainty of the relationship between the data gathered with the phenomenon (in our research the practice of SCM) that we want to measure, distortion of the data during the transformation process from the observation (raw data) to conceptualisation (means and aggregates) due to the non-linearity of the scale, confusion resulting from interdependencies due to the complexity of phenomenon under study, and finally the ambiguity related to the non-arbitrary way of investigating which particular definitions of existing entities are the correct ones to take into account. These four barriers were summarised by Tor (2009) as, firstly having to do with understanding the response structure, secondly is the issue of non-linearity, thirdly is about unidimensionality, and finally about construct operationalisation and internal consistency of terms, respectively. Thus, in the context of our research, Tor (2009) had recommended that social science measurement can be performed indirectly by probabilistic inference.

Therefore, in order to overcome these mentioned problems, alternative methods were explored in trying to determine how to analyse and interpret the data so that the findings would be generalisable to a certain degree. After reviewing two different theories relating to the approach in scaling and measurement (i.e. to estimate the reliability and validity of the empirical instrument), namely traditional test theory and modern test theory, as well as taking into consideration the available data gathered from the survey and the associated limitations, we further investigated the modern test theory route. One viable method down this branch is the Rasch Measurement Model (RMM) because of its suitability in addressing all the problems that were encountered during our research, as well as overcome the above mentioned barriers. This method works by applying a simple mathematical model which constructs abstract linear measures from the concrete raw data (Tor, 2009).

## **Results and Discussions**

In the context of Management Leadership (ML), the distribution of all Respondents and individual group of Respondents (Contractors, Developers and Suppliers) along the Level of Adoption (LoA) toward Management Leadership practices reveals that only Developers can be

classified as High Adopter of ML element in the SCM practice. Most of the industry players can be classified as High Adopters (47.17%).

### **Level of Practices (LOP) Management Leadership Practices**

The survey result indicates that, the Level of Practices (LoP) for ML is reasonably common (58.9% likelihood) which reflect that the activity in Management Leadership are reasonably common implemented by the industry players.

From the output of item measure analysis it is found that the industry players practice ranking the Leadership Management criteria as per the following order (in terms of importance):

- i. Top Management Support toward SCM practices:
  - a. Understanding the concept of SCM
  - b. Commitment toward SCM implementation
  - c. Commitment towards SCM partners (suppliers/customers)
  - d. Providing the appropriate structure to support SCM
  
- ii. Top Management Engagement in SCM implementation:
  - a. Encourages the organization to build, maintain and enhance relationships with customers/suppliers
  - b. Considers supply chain management as a competitive business strategy
  - c. Supports supply chain management by providing resources

Although the level of adoption of Management Leadership is can be categorized as high and the level of practices are reasonably common they occur at low percentages which indicated that there is still need in improvement.

### **Conclusions**

Driving forces in construction industry indicate that the ability to improve is quickly becoming a competitive requirement. However the industry has been generally slow to embrace innovation and radical changes as fundamental changes in the industry require shifts in the conservative management perspectives of construction contractors. Thus it the leadership of the industry should play a crucial role in change initiatives. Therefore this study is focus to investigate the role of management leadership (ML) in creating change for innovation in the Malaysian construction industry.

The study summarizes the important leadership factors in construction industry as follow;

- i. Successful leadership in construction business is not just following a standard 'format'. It can be reached by several approaches. This means that 'positive' influences on leadership in the one situation can also be 'negative' influences on leadership in the other situation.
  
- ii. Successful leadership has to do with having the right people available within the networks one works within. However, it needs a vision how to do this in the most suitable way.

- iii. Having a right 'timing' is considered to be an essential need for being a successful leader. However, 'timing' without 'action' does not make a business. And in practice, 'action' means an entrepreneurial need for focus on the goal(s) set.
- iv. Although diversifying businesses may be a good strategy for spreading risk, it can also weaken its market strength. Therefore one should still consider its own strengths and weaknesses, and decide e.g. how to balance 'focusing' and 'opportunism'.
- v. Being a successful leader in construction business (or even in general), depends strongly on what one sees as 'indicators for being successful'. And this often differs between regions and (business) cultures. This means that the way of being considered as a successful leader or not is still a part of the local (business) culture.

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