



A Comprehensive Cluster Map for Construction Cluster

M. H. sebt^{1*}, M. mokhtariani²

1- Associate Professor, Department of Civil & Environmental Engineering, Amirkabir University of Technology, Tehran, Iran.

2- M.Sc. Student, Department of Civil & Environmental Engineering, Amirkabir University of Technology, Tehran, Iran

(Received 09 Feb 2010; Accepted 05 Jan 2014)

ABSTRACT

Construction industry is one of the most important industries in the world that has a significant role in the development of countries. Therefore, in the recent decade, many countries accomplish extensive researches for growing their share in an international market. One of the economic approaches, which considered for this reason in several industries in the recent years, is the industrial cluster. However, because of the unique nature of construction industry, many dimensions of this strategy have not been clarified within construction industry. One of these dimensions, that have important role in a comprehensive perception of industrial cluster approach in the construction industry, is the construction cluster map.

In this article, a comprehensive map for the construction cluster has been established by the use of grounded theory that illustrates vividly, the actors and activity that contribute to construction industry.

KEYWORDS

Construction Industry, Industrial Cluster, Comprehensive Cluster Map, Grounded Theory.

*

Corresponding Author, Email: sebt@aut.ac.ir

Vol. 46, No.1, Summer 2014

۱۴۸

23

دوره چهارم، شماره ۱، تابستان ۱۳۹۳

1- INTRODUCTION

The construction industry is one of the most important industries in the world that has a significant role in the development of countries. Therefore, in the recent decade, many countries have accomplished extensive research for growing their share in the international market. One of the economic approaches, which are considered for this reason in several industries in recent years, is the industrial cluster.

A construction cluster is a geographic concentration of interconnected businesses, suppliers, and associated institutions in a particular field. Clusters are considered to increase the productivity in which companies can compete, nationally and globally.

A few researchers have conducted the studies on cluster concepts in construction such as Khalfan et al. (2006), De Valence (2000) and FP7 (2008-2010). Therefore, many dimensions of this strategy within the construction industry have not been clarified.

One of these dimensions that has an important role in comprehensive perception of the industrial cluster approach in the construction industry is the construction cluster map.

2- METHODOLOGY

According to the unique characteristic of the grounded theory in qualitative modeling, this method was used for

the development of the cluster map. The input data for this method was extracted from the cluster map of Australia, Finland, Scotland, Switzerland's construction industry and other related industries. After applying the method on the data, the primary map was developed.

Finally, to ensure comprehensiveness of the map, ten experts of the construction industry including consultants, contractors and public sectors responsible evaluated this map. After applying the expert opinions, the final map was found.

3- MIAN CONTRIBUTIONS

- 1-Use of the grounded theory for the cluster map development.
- 2-Development of a comprehensive cluster map of the construction industry that illustrates the contributors and tasks within the cluster.

4- SIMULATION RESULTS

The main result of the research is the comprehensive cluster map of the construction cluster that illustrates vividly, the actors and activities that contribute to the construction industry (fig.2).

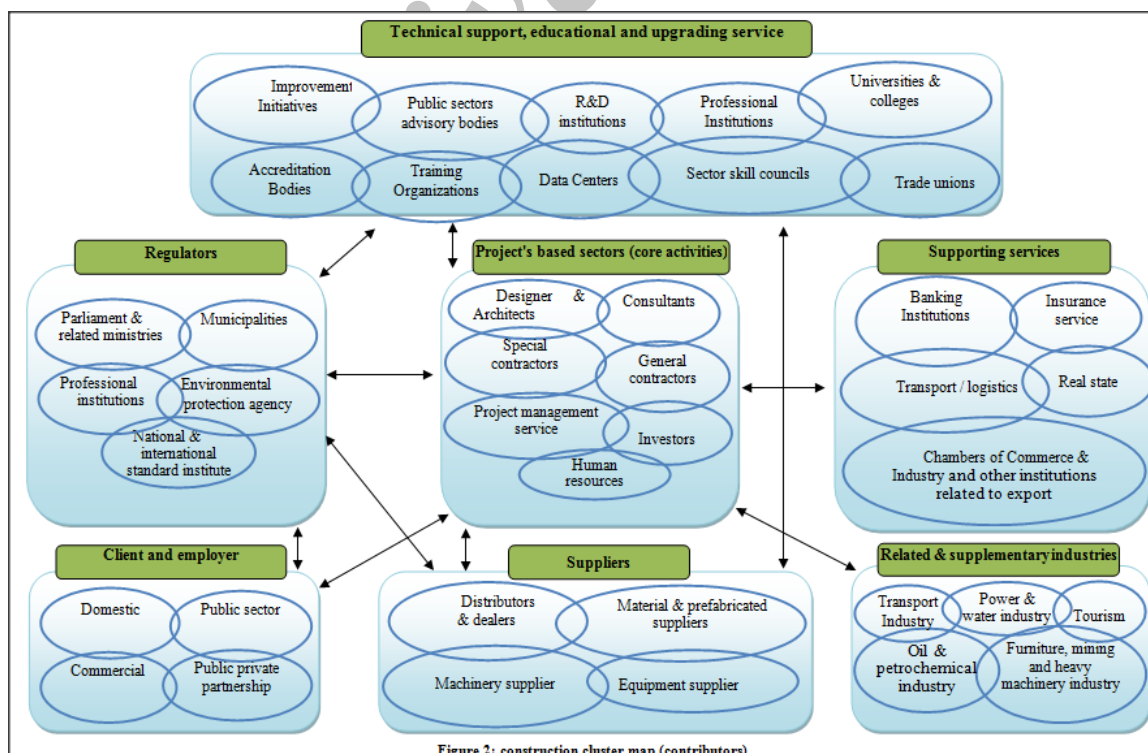


Figure 2: construction cluster map (contributors)

5- MAN REFERENCES

- [1] AEGIS ,“Mapping the Building and Construction Product System in Australia”, Department of Industry, Science and Resources, Canberra, 1999.
- [2] De Valence, G. ,“Comparison of a Traditional and Cluster Model of Construction Industry Structure”, Faculty of Design, Architecture and Building, University of Technology, Sydney, 2000.
- [3] Glaser, B. G.; Strauss, A. L. ,“The Discovery of Grounded Theory”, 1st. ed., New York, Aldine de Gruyter, 1967.
- [4] Khalfan, M.M.A.; Asad, S.; and McDermott, P., “Development of clusters in the construction industry”, 3rd International SCRI conference, Netherlands, Rotterdam, pp. 521-529, 2006.
- [5] Modernizing Construction Group ,“Scottish Construction Industry Plan 2007-2012, 2005”,http://www.scottishconstructionforum.com/Scottish_Construction_Industry_Plan_2007-2012.pdf.
- [6] Porter, M.E.,“On Competition: A Harvard Business Review Book, Boston: Harvard Business School Publishing”, 1990.

Archive of SID