Department of Building, School of Design and Environment,
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RESEARCH BRIEF

1999/001

Influence of Foreign Contractors on Development of Singapore Construction Companies

RESEARCH QUESTION

The literature suggests that foreign firms can be used to help the construction industries of host countries to develop. However, studies show that these firms are unwilling to help in the upgrading of local industries, as this would erode their competitive edge. Foreign contractors have dominated the large-complex segment of Singapore's construction industry owing to their technical and managerial expertise, and financial resources (see Table 1). It is suggested that foreign firms have helped to develop Singapore's construction industry by (1) transferring technology; (2) influencing local companies through their demonstration of advanced managerial systems and construction methods; and (3) offering competition to them.

AIMS AND OBJECTIVES

The research project aimed to study the influence of foreign contractors on the development of the construction industry of Singapore and propose measures for ensuring that both local and foreign companies benefit from the presence of the latter.

The objectives were:

(1) to trace the evolutionary development of the construction industry in Singapore since 1960;

(2) to determine the contributory factors to the growth and improvement of the construction industry and construction firms in Singapore; and to assess the role of foreign companies;

(3) to propose national and corporate level policies and initiatives for deriving the greatest benefit from the operations of foreign contractors in Singapore; and

(4) to contribute to knowledge in relevant areas from the findings and conclusions.

RESEARCH METHOD

The study was developed on the basis of, and conceptually supported by an extensive literature review on: multi-national enterprise theory; technology transfer; international construction; and development of Singapore's construction industry. In a field study, all registered foreign construction firms, and all large local contractors (G6 to G8 firms in the register of the then Construction Industry Development Board (CIDB)) were contacted in a mailed questionnaire survey. Also included in the survey were major clients and consultants. After the results of the questionnaire survey had been analysed, interviews were held with prominent personnel in foreign and local construction firms; client and consultancy organisations; relevant statutory boards including the Housing and Development Board (HDB), the then CIDB and the then Public Works Department (PWD).

Table 1: Percentage of Contracts Awarded by Contractor Origin, 1999

Size of Contract	Local (%)	Foreign (%)	Joint Venture (%)
Under $2m	95	5	0
$2m to just below $10m	91	9	0
$10m to just below $30m	81	19	0
$30m to just below $50m	78	16	6
$50m to just below $100m	61	36	3
Over $100m	27	67	6

Source: BCA

SUMMARY OF FINDINGS AND RECOMMENDATIONS

The following conclusions may be made from the study:

(1) Foreign construction firms were necessary in Singapore's socio-economic development effort;

(2) Foreign firms are superior to their local counterparts in terms of capacity and capability;

(3) The presence of foreign firms has not been harmful to the local contractors (since 1980, local construction companies have grown in terms of capacity and capability);

(4) Foreign contractors have helped local companies to grow (see Table 2);

(5) There is scope for foreign and local construction firms to co-operate.

Table 2: Data on Top 20 Local Construction Firms by Turnover, 1984 to 1998 (S$'000)

Year	Total Value of Certs	Top Firm	10th Ranked Firm	20th Ranked Firm	Ave. for Top 10 Firms	Ave. for Top 20 Firms
1984	8,503,000	121,869	87,793	40,327	101,818	77,679
1985	6,647,000	195,920	74,691	44,030	117,582	86,459
1986	5,422,000	207,877	51,667	25,852	111,885	74,049
1987	4,700,000	208,900	58,900	26,100	95,730	66,530
1988	3,942,000	205,300	56,100	33,300	94,890	69,210
1989	4,314,000	169,300	59,100	27,900	94,160	67,200
1990	4,916,000	220,990	62,420	29,240	109,175	75,009
1991	6,800,000	209,210	79,100	43,370	111,154	83,570
1992	8,900,000	265,082	131,380	72,467	180,460	134,635
1993	9,600,000	364,340	118,866	88,323	186,108	145,767
1994	11,300,000	313,366	140,752	65,324	190,255	143,742
1995	12,100,000	425,093	138,883	88,519	232,189	172,525
1996	15,600,000	763,379	145,926	100,482	284,127	201,587
1997	19,100,000	813,953	207,280	141,398	323,326	486,804
1998	19,300,000	710,547	241,496	148,854	356,660	548,288

Sources: Various publications of Construction Industry Development Board (CIDB) and Building and Construction Authority (BCA), 1985 to 1999.

Initiatives should be introduced to identify and nurture a group of local contractors to attain some of the vital features of their foreign counterparts. These firms should be: provided with opportunities to undertake major projects; given incentives to acquire equipment and advanced management systems; be encouraged to adopt professional approaches to corporate management, and employ qualified personnel; be encouraged to establish relevant strategic alliances within and beyond construction; and be encouraged to diffuse their knowledge to other local companies.

A comprehensive study of government schemes for helping local firms to upgrade and innovate should be undertaken. Each scheme should be continually monitored, fine-tuned and reviewed to make it relevant, sufficient and effective. Measures to enhance the entrepreneurial skills of contractors should go beyond processes and project performance. Incentives should be offered to companies, for example, to engage business policy consultants to analyse their structures, procedures and approaches, and make due recommendations. A thorough study of the needs of categories of contractors should be undertaken, and programmes and schemes for addressing them introduced.

A Construction Enterprise Development Unit should be set up in the CIDB. Its functions would include: continually assess the business needs of construction enterprises and the best ways and means by which these can be met; devise, institute and administer incentive and support schemes for construction business development; promote co-operation and collaboration among construction firms as well as between construction enterprises and those in other sectors.

Partners of joint ventures must work to combine their strengths to derive real synergies from the linkage, and adopt a systematic approach to manage their continuous development over time, including periodic monitoring of the performance of the joint venture from project to project. They should also work systematically to address each other's weaknesses. A balance needs to be struck between short-term commercial considerations and long-term developmental ones. Partnerships between local and foreign firms as, under the Local Enterprises Upgrading Programme, would be relevant. In these arrangements, the foreign firms would be invited, and construction firms with similar objectives and encouraged, to be mentors to selected local firms. Interest groups could be promoted among concerns for mutual support, sharing of ideas, and encouragement. The examples of successful alliances and partnerships, whether in the short (uni-project) or long-term mode, should be given greater publicity, highlighting success factors, dangers, and conflict-resolution mechanisms.

The local contractors must show their commitment to the business of construction and to their own development. They should take every opportunity to learn from their foreign counterparts as well as their compatriots which are better in technology and/or management. They should seek to be partners of clients, and aim to add value to the clients' products.

Singaporeans employed in foreign construction enterprises are in the best position to benefit from direct technology transfer. They should acquire the technical and managerial skills, and form the vanguard for the development of the local construction industry as they move to other local companies, taking this knowledge with them; or set up their own companies.

The Singapore Contractors Association Ltd (SCAL) can be a forum for the discussion of possible solutions to common problems facing the two groups of firms. It should seek ways by which its members can co-operate, and facilitate and enable cross-fertilisation of ideas among them, for their mutual benefit. It should take measures to expose the entire local construction industry to the operations of foreign contractors, and the factors underlying their success in Singapore and their good reputation worldwide, as well as their longevity in the construction business.

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