

CAN THE PROBLEMS FACED BY SMALL SCALE CONSTRUCTION CONTRACTORS BE SOLVED ?

by

Dr. A.K.W. Jayawardane
and Eng. A.P.R. de Silva

Abstract

The availability of a large number of small scale contractors (SSCs) throughout the country is an asset to the construction industry in a developing country like ours. Although there are criticisms against them such as poor quality, failure to meet targets etc., there are several difficulties faced by SSCs.

After introducing the role of SSCs in a developing economy, contractors' views on problems they face in areas such as technical and managerial; financial; construction plant, equipment and vehicles; basic materials; contract administration; and social aspects are presented. Contractors' views on reasons for such problems, their suggestions for improvements, and support they expect from outside parties such as ICTAD, ACCSL, CHPB and Government policy-making bodies are also presented.

It was found that the most critical problem faced by SSCs is the payment delays by employers due to various reasons. Other important problems include inadequate work throughout the year and difficulties in obtaining bonds, guarantees and loans.

1.0 Introduction

When a country develops, expansion of the construction industry takes place automatically, particularly in a developing country like ours. As a result of the government's open economic policies and increasing construction activities in Sri Lanka, a large number of SSCs sprang up in the recent past. This process is continuing even today. There are several advantages in having large number of SSCs as they are scattered throughout the country and function as employment generators contributing to national development. As they are not so mechanised, available labour can be extensively utilised. The expansion of these contractors should therefore be encouraged.

Clearly, these contractors cannot survive in the industry unless they are capable of withstanding the ups and downs of the industry. Very often, these SSCs have to compete with well established medium or large scale contractors even for the smaller jobs.

In addition, lack of capabilities of SSCs and other inherent problems make it even more difficult for them to survive in the construction industry. For example, lack of managerial capabilities, expertise in technology, plant and equipment, constraints in timely material acquisition and, more importantly, financial difficulties create real problems. This paper looks at some of the important problems faced by SSCs and presents recommendations for improvements, mainly based on the views of contractors.

2.0 Role of Small Scale Contractors

SSCs play an important role in both industrialised and less developed countries by contributing to the countries' economies in various forms as follows.

1. As income generators

SSCs are powerful income generators often with relatively small capital investment. They are always prepared to provide their services at minimum cost to clients on small,

Dr. A.K.W. Jayawardane, BSc Eng(Hons), MSc Construction (Loughborough), PhD(Loughborough), MIE(SL), CEng, graduated with a first class degree from the University of Moratuwa in 1983, obtained MSc in 1986 and PhD in 1990. Presently, he is a Senior Lecturer at the Department of Civil Engineering, University of Moratuwa.

Eng. A.P. Ranjith de Silva, BSc Eng(Hons), MEng(Const.Mgt), CEng, MIE(Aust), MIE(SL) graduated in 1986 and obtained masters degree in Construction Management in 1993 from the University of Moratuwa. From 1986 to 1993 he was attached to the Mahaweli Engineering and Construction Agency as a Civil Engineer.

remote and geographically dispersed schemes such as schools, health centres, post offices and other infrastructure. They use foreign funds effectively without these being remitted back to expatriate contractors. Their contribution to the development of local building materials industry is commendable. All these increase the income of those who are involved in such industries.

2. As employment generators

SSCs are widely spread throughout the country and provide employment to unemployed youth in every corner of the country. As they are more labour intensive, especially in semi-skilled and unskilled categories, they play an important role as a transitional absorber of labour particularly between the agricultural and the construction sectors. Their positive linkage with domestic building materials industry further improves the employment situation.

3. As sub-contractors

Eighty-nine percent of the contractors who are registered under the building category in the National Register of Contractors is Grade 5 and 6 and are considered as SSCs (1). Apart from their direct involvement in small scale work, they are utilised by large and medium scale contractors as sub-contractors. They may be either building/civil sub-contractors or specialist sub-contractors. They are the foundation for building and development of medium and large scale contractors.

From the above explanations, it is clear that upgrading of SSCs means increased employment opportunities throughout the country, greater efficiency in utilisation of local and foreign funds and building up a coherent construction industry with effective long term cost optimisation. They can be considered as a major share holder in the national development programme and their role has a direct impact on the quality of human life.

3.0 Methodology and Data Collection

The methodology adopted to obtain necessary information was a questionnaire survey supplemented by interviews. The formulation of the questionnaire was carried out based on discussions with a few SSCs, clients, engineers/consultants and institutions like ICTAD and ACCSL. The questionnaire was formulated with the concept of getting each contractor into a friendly discussion in order to avoid superfluous answers. After considering various ways of identifying SSCs, contractors falling under grade 5 and 6 of the National Registry of

ICTAD were selected. About 225 contractors were selected for the questionnaire survey expecting a response rate of around 25%. As expected, only 53 responded. The analysis of data and results given in the following sections are based on these 53 questionnaires, interviews carried out with 13 contractors and discussions and interviews held with 10 representatives of clients, consultants and major contractors.

4.0 Data Analysis and Discussion of Results

During the analysis of data collected through the aforementioned methodology, every attempt was made to understand the whole picture and give due weightage to all comments, suggestions and difficulties expressed by contractors and other parties. The results obtained are presented and discussed in the following sections.

4.1 Technical capabilities and associated problems

1. Technical staff

It was revealed that the majority of contractors do not have permanent staff. Very few contractors employ Engineers or Engineering/Technical Assistants for their work. Most of the SSCs prefer to keep supervisors as the highest level of management staff in their organisations.

Over 40% of the contractors surveyed mentioned that, non-availability of continuous work is the biggest problem they face in recruiting and retaining necessary staff. Seventeen percent of contractors expressed their dissatisfaction regarding the performance of existing staff. The two major reasons identified by them for this unsatisfactory performance are the inadequate skills of craftsmen, and the lack of knowledge and lack of management capabilities of supervisors.

2. Understanding of technical matters

The analysis revealed that 65% of the contractors do not have difficulties in understanding technical matters such as instructions, drawings and specifications. Twenty-one percent have experienced their difficulties in understanding drawings and specifications, while 19% have difficulties about instructions.

3. Problems when dealing with client/consultant

It was found that SSCs face a lot of problems when dealing with clients/consultants, in day-to-day contractual matters. Some of the major problems, together with their relative importance, are shown in Table.1.

4.2 Financial capabilities and associated problems

1. Advances

A majority of SSCs (53%) do not receive advances from clients; only 29% receive mobilisation advance and on account payments. An on account payment is made when the full bill value cannot be made due to various circumstances or when the contractor requests money to meet his urgent needs. The details are given in Table 2.

The main reason given by contractors for not receiving a mobilisation advance is that most state organisations do not use the ICTAD Conditions of Contract for small work. Instead, they use their own conditions of contract. According to the ICTAD Conditions of Contract for small construction work (4) the contractors are entitled to mobilisation advance.

2. Bonds, guarantees, loans and overdrafts

Capabilities of SSCs in obtaining facilities such as bonds, guarantees, loans and bank overdrafts from banks and insurance companies are presented in Table 3.

It can be seen in Table 3 that only 21% of contractors can obtain performance bonds from banks. The major reason for this low percentage is the difficulty in providing the required guarantees to lending organisations.

3. Payments by clients

One of the most critical problems faced by SSCs is payment delays by clients. Contractors have repeatedly expressed this throughout the questionnaire wherever relevant. Contractors' views on reasons for such payment delays are shown in Table 4.

It is surprising to see that 34% of the contractors surveyed have mentioned that this payment delay is a deliberate tactic by staff of other parties to extract bribes. This is a serious problem which needs urgent attention. Clearly, the contractors face lot of financial difficulties due to these payment delays, particularly due to their low working capital. The difficulties are shown in Table 5.

4. Working capital

The contractors were asked to comment on the sufficiency of working capital to execute a given project. Contractors' views along with their relative proportions are shown in Table 6.

4.3 Construction plant, equipment and vehicles

1. Acquisition of plant, equipment and vehicles

As expected, the results confirmed that SSCs are not so mechanised. A very small percentage of contractors have one or two essential pieces of equipment for day-to-day construction work. The most popular method of acquiring any piece of equipment, plant or vehicles is outright purchase, followed by hiring and credit purchase. Leasing of equipment seems to be non-existent. It was also found that only 14.5% of contractors own a vehicle for their travelling and transportation. The difficulties faced by the contractors in acquiring these plants and equipment are always due to their poor financial status.

2. Operation and maintenance

Proper operation and maintenance of available plant and equipment are not carried out by a considerable percentage of contractors. The reasons given for this situation are: high prices of spare parts, difficulty in maintaining due to intermittent work, non-availability of spare parts and lack of knowledge of contractor's maintenance staff.

4.4 Basic materials, components and associated problems

1. Availability of materials

Constraints encountered by SSCs in purchasing basic materials are similar to those faced by other grades of contractors. These difficulties are: unavailability of required stocks in the open market, high prices and constant escalation of prices, inferior quality, procedural difficulties in purchasing from government institutions, artificial shortages created by opportunists and so forth.

2. Credit facilities for material purchase

It was revealed that 64% of contractors surveyed do not receive material on credit from clients or suppliers. Thirty percent of contractors receive credit from clients but clients charge transport cost and additional % of material cost as a profit and overhead component called *board charges*.

3. Price fluctuation payments

Table 7 shows the proportion of contractors who receive price fluctuation payments.

It was found that price fluctuations for cement, steel and asbestos are paid to 30%, 21%, 8% of contractors respectively.

Naturally, most contractors expect price fluctuation payments for all materials, and they want to extend the facility for materials purchased from the open market, too, due to scarcity of materials in state institutions. Most SSCs insist on including price fluctuation formulae in their contracts which is now limited to other grades only.

4.5 Contract administration and associated problems

1. Method of procurement

As for the contract procurement system, it was revealed that 79% of contractors surveyed obtain jobs based on open tendering, 13% on negotiated basis, 26% based on engineer's estimates and 9% based on other methods such as on rotational basis.

The majority of contractors expressed their preference for open tendering since it prevents cheating and corruption while at the same time, earning acceptable profit for work carried out to clear specifications.

2. Understanding contractual matters

Contractors' views on their ability to understand contractual matters are given in Table 8.

The results illustrate that the capabilities in this aspect seems to be fairly adequate.

3. Preparation of claims

It was revealed that about 40% of contractors prepare their measurement sheets for claims while 16% prepare them jointly with other parties. Eighteen percent do not have any control over preparation of measurement sheets. This generally causes delays since agreement is sometimes difficult.

4. Control on contract administration

About 74% contractors are satisfied with the control they have in contract administration while 15% are not satisfied since they do not have any say in the administration of the contract.

4.6 Social factors and associated problems

1. Share of work for SSCs

Contractors' views on availability and distribution of work among them are shown in Table 9.

2. Attitude of other parties to SSCs

Unlike other grades, SSCs are downgraded by other parties, according to the views expressed by SSCs. Their major concerns are that other parties disregard the views of SSCs, consider them as servants and an ignorant lot working under other parties.

5.0 Conclusions

The following were found to be the pressing problems faced by small scale contractors, and are listed in order of priority.

1. Financial problems due to payment delays by clients.

2. Non-availability of adequate work throughout the year.

3. Non-eligibility for price fluctuation payments for the majority.

4. Incapability of obtaining any type of advance for the majority.

5. Difficulties in maintaining adequate rate of utilisation of plant and equipment.

6. Difficulties in understanding drawings, specifications, contractual matters and instructions given by clients/consultants.

6.0 Recommendations

Based on the views obtained from small scale contractors through questionnaires and interviews, interviews and discussions held with senior experienced engineers attached to consultancy organisations, engineering managers of major private construction companies and representatives of ICTAD and ACCSL, the following recommendations can be made in order to improve the plight of SSCs.

6.1 To overcome difficulties related to contract administration and technical capabilities

1. Government must strictly enforce the requirement of ICTAD registration for small contractors as a prerequisite to obtaining work from state sector clients.

2. Adaptation of ICTAD conditions of contract for small works should be enforced for all small scale contracts, similar to the conditions of contract for other grades of contractors.

3. It must be made compulsory for small contractors to enter details of present work load in the contract log book at the commencement of work. This enables prospective clients to know the present work load of a contractor before awarding a new contract. This prevents delays and ensures fair distribution of work.

4. Client/consultant should always specify the required minimum supervisory staff of the contractor in the contract document itself and it should be implemented as presently done for other grades of contractors.

5. Even for grade 6 registration, which does not need any construction experience at present, there must be some simple pre-qualification, for example, by introducing three routes to become a SSC namely; Trade, Management and Commercial, as recommended elsewhere (3).

6. ICTAD/CHPB must organise regular training programmes for SSCs and their staff on technical as well as contractual matters. At least a few such programmes should be conducted at the provincial level with due publicity.

7. ICTAD and ACCSL must continue with and increase the frequency of conducting workshops at the provincial level to discuss matters connected to SSCs. Representatives from state sector clients/consultants should be invited for such workshops to improve mutual understanding. Divisional Secretariats would be of assistance in this regard.

8. ICTAD, ACCSL must look into the possibility of establishing few branches Island-wide so that contractors can easily access them without coming to Colombo.

6.2 To overcome financial difficulties

1. Any unavoidable payment delays by clients should be informed and suitable advance from the payment due

should be given to the contractor. In order to discourage payment delays, payment of interest for the delayed sum should be introduced.

2. Facility of providing necessary guarantees by ACCSL to obtain bonds and guarantees, which is recently introduced, should be given adequate publicity among SSCs.

3. ICTAD, with the assistance of ACCSL, can formulate some strategy to hire machinery to SSCs from 50-machinery units recently established by the government or from higher grades of contractors.

4. State sector clients should be encouraged to provide at least basic materials such as cement, steel, timber for small construction work on credit basis so that recovery can be made through payments without expecting a profit on the material issued. This will reduce the burden of working capital, problems connected with material standards, quality, availability, high prices and related disputes.

Appendix 1 - References

1. De Silva A.P.R.(1993), "Problems faced by small scale contractors" MEng. Thesis submitted to the Department of Civil Engineering, University of Moratuwa.

2. International Labour Office (1987). "Guidelines for the Development of Small Scale Construction Enterprise" Geneva, ILO publication.

3. Ganesan, S. (1991). "Development of the National Construction Industry - A case study of Sri Lanka". ICTAD publication in association with the World Bank.

4. Institute for Construction Training and Development.(1992) "Guidelines for Registration of Contractors, Tendering and Contract procedure for small works". ICTAD publication No. ICTAD/ID/06.

Appendix 2 - Abbreviations

ACCSL- Association of Construction Contractors in Sri Lanka

CHPB - Centre for Housing, Planning and Building

ICTAD - Institute for Construction, Training and Development

SSCs - Small Scale Contractors

Table 1 - Problems faced by small contractors when dealing with client/consultant

Problem	Status (%)				
	Usually	Occasionally	Rarely	Not at all	Not answered
1. Delays in interim/final payments	70.0	15.0	4.0	4.0	7.0
2. Difficulties resulting from verbal instructions	70.0	11.0	4.0	4.0	11.0
3. No continuous supervision by client/consultant but responsibility always on the contractor	56.5	11.5	5.5	7.5	19.0
4. Instructions lead to costly methods	37.5	21.0	19.0	13.0	9.5
5. Resistance to renegotiating contract dead lines due to unforeseen delays	34.0	23.0	13.0	17.0	13.0
6. Client/consultant take offence when questioned	32.0	7.5	21.0	22.5	17.0
7. Instructions given are difficult to implement	28.5	30.0	17.0	13.0	11.5
8. Unnecessarily strict quality control	28.5	24.5	15.0	17.0	15.0
9. Delays in giving instructions	26.5	41.5	11.0	9.0	11.0
10. Client/consultant reluctant to explain/clarify measurements/bills when questioned	24.5	13.0	19.0	30.0	21.0

Table 2 - Types of advances received

Type of advance	Value of advance	Proportion of contractors (%)
Mobilisation	20%-30% contract value	21
On account	75%-90% of the payment due	21
Materials	80% of the material value	4

Table 3 - Capabilities in obtaining financial facilities from lending organisations

Facility	Can obtain (%)	Difficult to obtain (%)	Cannot obtain (%)
a. <u>From Banks</u>			
Loans	31.0	32.5	13.5
Bid bonds	28.0	30.5	18.5
Bank Overdrafts	51.0	19.0	7.0
Performance bonds	21.0	28.0	28.0
Advance payment guarantees	22.5	24.5	30.5
b. <u>From Insurance Companies</u>			
Bid bonds	13.0	18.5	45.5
Performance bonds	14.0	19.0	44.0
Advance payment guarantees	14.0	16.5	46.5

Table 4 - Reasons for payment delays

Reason	Proportion (%)
1. Intentional delays by client/consultant's staff while expecting some benefits or rewards from the contractor	34
2. State client organisations do not allocate required money on time thus bank balance inadequate to settle the bills	30
3. Inadequacy, poor attendance and inefficiency of the staff of client/consultant to expedite payments	22
4. Lengthy procedures, large number of staff involved in finalising claims and centralised nature of payment approval	12
5. Delay in approving extra work even after completion	2
6. Delay in approving time extensions	2

Table 5 - Difficulties Faced by SSC due to payment delays

Difficulty	Proportion (%)
1. Completing work on schedule	41
2. Payment of staff salaries, settling material bills and bank overdrafts	34
3. Loss of credibility with creditors such as suppliers, lending organisations due to delay in settling dues on time	30
4. Starting new contract or proceeding with work while awaiting payment for the completed work	17
5. Loss of profits due to interest payments on borrowed money or high interest payments to local creditors	15
6. Reduction of profits due to delay in completion	13
7. Keeping skilled categories without paying their salaries on time	06

Table 6 - Adequacy of working capital

Status	Proportion (%)
Yes, only with mobilisation advance	55
Yes, even without mobilisation advance	19
No	13
Not answered	09
No, even with mobilisation advance	04

Table 7 - Price fluctuation payments

Status	Proportion (%)	
	Labour	Material
Price fluctuation given	21	38
Price fluctuation not given	66	47
Not answered	13	15

Table 8 - Contractors ability to understand contractual matters

Contractual matter	Proportion (%)			
	Easily	With some difficulty	With much difficulty	Cannot understand
1. Conditions of contract	72	17	-	-
2. Agreement	74	11	04	-
3. Contract law	62	19	06	02
4. Other contract correspondence	66	23	-	-

Table 9 - Contractors' views on availability and distribution of work

Status	Proportion (%)	
	Yes	No
1. Adequate	18	82
2. Distributed fairly among SSCs	33	67
3. Medium and large-scale contractors should not be allowed to obtain small-scale work	82	18