Difficulties Facing Contractors from Developing Countries: Problems and Solutions

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Abstract

International contracting organisations are occupying an increasingly dominant role in the international construction markets.

This poses difficulties for contractors from smaller developing countries which do not receive the overt and covert government support enjoyed by their much larger competitors and which are obliged to seek contracts outside their home countries because of dwindling domestic markets.

Emerging contractors experience other difficulties, which are touched on in this paper.

Solutions are proposed involving government and donor support and, particularly, association between emerging and established local contractors respectively to develop the critical mass necessary for them to compete on the domestic and international markets.

Keywords: *Associations; competition; emerging regional, international, contractors.*

INTRODUCTION

With the globalisation of the economy and improvements in transport and communications, large international contractors are now able to operate in practically every country of the world – often on an in-and-out basis.

This evidently is not helpful to the economics of developing countries as it means the bleeding-off of scarce foreign currency as the international contractors often pick up contracts which local contractors could easily execute on their own home ground. Local contractors too, often find themselves unable to compete with the large established international contractors because of the latters' superior human, material and financial resources. The above situation will be examined in the following and solutions proposed to enable local contractors to compete, grow and themselves eventually achieve international status.

What is a contractor?

A contractor is an organisation that contracts to construct a building or structure for a client, for payment.

The contractor may be a former artisan who organises a group of colleagues to build a house; or may be an international organisation employing 100.000 people, turning over US$ 15 billion a year and constructing, among other works, a 600 MW power station under a build-own-operate-transfer contract.

All contractors have the following in common: knowledge (know-how); management; personnel; materials; plant; equipment and finance. International contractors have access to these on a global basis and can, for example, engage labour from the Philippines, buy cement from India and equipment from China at advantageous prices.

Some contractors also carry out the design and planning of a project, sometimes on a turn-key basis; others, management contractors, focus on the management function and organise other contractors. Still others manage the whole building process, raise finance and often own, if only temporarily, the built facility. Others are extending their scope of activities into post-construction facility management.

The international contracting scenario

Scenario

The international contracting scenario is characterised by three factors: the emergence of mega-projects; the delegation by clients to contractors of the management of large contracts and the encouragement of private finance initiatives where contractors also organise funding for projects.

Funding

Funding may be privately raised, may come from budgeted national or provincial funds or may be development finance.

With the increasing limitation of the responsibilities of governments around the world to the provision of only education, health and security, funding from government sources is diminishing. This has been increasingly the case in South Africa since 1994. The provision of development funding on the other hand, especially in Africa, is increasing with money from the World Bank, the African Development Bank and the European Union being provided to countries for the design and construction of roads, water supply schemes, power supply and other infrastructure projects.

International Contractors

The following tables 1 to 7 give an overview of the activities of international contractors.

Table 1: Top 10 international contractors

		1998 Revenues (US$ millions)		
		International	Total	International Percentage
1.	Bechtel, USA	6.022	9.771	62
2.	Fluor Daniel, USA	5.343	9.640	55
3.	Bouygues, France	5.280	12.517	42
4.	Skanska, Sweden	4.825	6.939	70
5.	Kellogs, Brown & Root, USA	4.772	6.835	70
6.	HBG, Holland	3.540	4.697	75
7.	GTM, France	3.438	7.430	46
8.	SGE, France	3.359	9.348	36
9.	Hochtief, Germany	3.312	6.914	48
10.	Phillip Holzmann, Germany	3.229	7.205	45
	Total	43.120	81.296	53
45.	Murray and Roberts, RSA	565	1.168	48
	Total Revenue of Top 225 Contractors	116.395	363.497	32
	Share of Top 10 in Total Revenue of Top 225 Contractors	37%	22%	

Source: Engineering News Record

Table 1 shows the revenue earned by the top ten international contractors, internationally and at home respectively. Murray and Roberts, South Africa's largest contractor, is included in the table for comparison purposes.

From the table it can be seen that

- The top ten international contractors earn over 50% of their revenue outside their home countries.
- The list is dominated by US and European contractors; in 1998 there are three US and seven Europeans.
- Nearly 40% of the total amount invoiced by the top 225 international contractors overseas is invoiced by the top 10.
- Murray and Roberts is climbing the league table, from position 121 in 1995 to 45 in 1998, but with a total turnover in 1998 of US$ 1168 is still relatively small compared to the nearly US$ 10 billion total turnover of the large international players.

Table 2: Ten largest US engineering and construction companies

	Company	1999 Revenue (US$ millions)	Profits (US$ millions)	Profit %	No. of Employees	Revenue/ Employee US$
1.	Halliburton	14.898	438	2,9	103.000	144.600
2.	Fluor	12.417	104	0,8	53.561	231.800
3.	Centex	5.155	232	4,5	13.161	391.700
4.	Peter Kiewit Sons	4.013	165	4,1	20.300	197.700
5.	Foster Wheeler	3.944	(144)	(3,7)	10.220	385.900
6.	Kaufmann & Broad Horne	3.836	147	3,8	3.500	1.096.000
7.	Pulte	3.730	178	4,8	4.300	867.400
8.	Dr Horton	3.119	160	5,1	3.355	929.700
9.	Lennar	3.119	173	5,5	4.859	641.900
10.	Emcor Group	2.894	28	1,0	20.000	144.700
11.	Morrison Kundsen	2.248	48	2,1	23.500	95.700
12.	Stone & Webster	1.215	20	1,6	5.300	229.200
	Largest US corporation					
1.	General Motors	189.058	6.002	3,2		

Source: Fortune Magazine 17.04.2000

Table 2 provides an indication of the largest American contractors, according to Fortune magazine. This table can be compared with Table 8 and 10 which provide similar information on South African companies.

GM's 1999 revenue was US$ 189 billion. South Africa GDP is about US$ 290 billion which gives an indication of the size of multinational firms.

Table 3: Nationality of the top 225 international contractors and their international market share: 1997

	Invoicing US$ millions	Share %	No. of Firms	Invoicing per Firm US$ millions
European	56.274	51	70	804
American	24.554	22	65	378
Japanese	12.867	12	19	677
Chinese	4.079	4	26	157
Korean	4.922	5	10	492
Others	7.528	6	35	215
Total	110.224	100	225	490

Source: ENR

Table 3 shows the dominance of the international market by European contractors.

Of the US$ 110 billion of international work carried out by the top 225 contractors in 1997 51% was carried out by 70 European contractors, 65 American firms carried out 22% of the work and average invoicing per firm was high, varying from about US$ 400 million to US$ 800 million per company.

Table 4: Profitability: 1997

	No. of Firms Reporting		**Average percentage of Profit**
	Profit	**Loss**	
Domestic	178	22 (11 %)	8,4
International	164	31 (16 %)	10,4

Profit in the international arena is higher than in the domestic, according to Table 4.
However, more companies make losses internationally than domestically.

Table 5: Share of international regions by top 225 contractors: 1997

	Revenue US$ millions	**Share Percentage**	**No. of Firms**	**Invoicing per Firm US$ millions**
Asia/Australia	34.757	32	160	217
Europe	29.521	27	134	220
USA	13.602	12	59	231
Middle East	10.454	10	109	96
Latin America	8.250	7	101	82
South/Central Africa	5.466	5	86	64
North Africa	3.949	4	82	48
Canada	2.193	2	49	45
Antarctic/Arctic	637	1	3	212
Total	108.829	100	225	484

Table 5 shows that in 1997 the majority of international work was carried out in Asia and Europe, with 59% of the work carried out by the top 225 contractors being sourced in those areas.

Only 5% of the total international work was carried out in Africa. This obviously has implications for South African contractors which are currently focusing on the southern and sub-Saharan African markets.

Table 6: Invoicing by market across the world by top 225 international contractors

	1997		**1995**	
	US$ billion	**Percentage**	**US$ billion**	**Percentage**
Industrial/Petroleum	37,4	36	31,4	32
Building	26,0	25	24,7	25
Transportation	19,4	18	19,5	20
Power	8,1	9	8,6	9
Manufacturing	5,7	5	6,6	7
Water	4,8	5	5,4	5
Sewer/Waste	2,3	2	2,1	2
Hazardous Waste	0,5	0	0,4	0
Total	104,2	100	98,7	100

Source: ENR

Table 6 shows that in 1997, 79% of international work carried out by the top 225 contractors was in the fields of industrial and petroleum, building, and transportation respectively. Again, this is of relevance to South African contractors which are experienced in building and transportation projects.

Table 7: International firms working in Africa – 1997

Country of origin of Firm	No. of Firms	Invoicing US$ million	Percentage of Total Invoiced in Africa	Invoicing per Firm US$ million
France	9	2.786	30	310
USA	18	1.541	16	86
Italy	10	918	10	92
Germany	11	751	8	68
China	21	707	8	34
Japan	10	684	7	68
Others	42	2.028	21	48
		9.415	100	

Source: ENR

Finally, Table 7 indicates that French, followed by US, firms dominated the international work carried out in Africa in 1997, with 46% of the total work carried out in Africa being executed by nine French and eighteen US firms.

Invoicing per French firm averaged at US$ 310 million, much lower than the US$ 800 million average invoiced by European firms across the world and shown in Table 3.

THE REGIONAL CONTRACTING SCENARIO – SOUTHERN AFRICA

Southern Africa

The regional contracting scenario is dominated by South African contractors. The larger firms, following the downturn in contracts in South Africa since 1996, have expanded into neighbouring countries and, in some cases, further north into Central and West Africa, and in two cases outside Africa.

South Africa

South Africa's basic infrastructure is practically complete. Since 1995 the government has concentrated on providing low cost housing and water supplies for the previously disadvantaged. The construction of a number of privately financed toll roads has been organised; privately financed casinos have been built and South Africa's overall water deficit is being partially resolved by the construction of the Lesotho Highland Water Scheme.

South African contractors

Established contractors

A number of well-established South African contractors exist. As in other developing and developed countries these expanded in a closed, booming home market which was not exposed to external competition. Most are now being obliged to seek work outside South Africa in competition with larger, mature international contractors.

Emerging contractors

The new South Africa has encouraged the development of small contracting companies by previously disadvantaged entrepreneurs.

These potential entrepreneurs are mainly non-whites who were marginalized in the old South Africa and excluded from participating in the higher spheres of the building industry, working as labourers and lower grade artisans.

With the demise of Apartheid and the new government’s affirmative action policy, these entrepreneurs are developing into what are now known as Emerging Contractors.

These contractors fill in a vital gap in the construction industry as they are always ready to carry out the very small and odd projects that the big, well established companies would not find profitable.

The difficulties that these contractors face will be discussed briefly later in this paper.

South Africa Construction companies

Quantitative profiles of international contractors against which South African contractors are competing across Africa were given earlier in this paper.

The following tables 8 to 10 will give an indication of the size and performance of the seven largest South African contracting companies.

Table 8: South African construction companies

		1999 Turnover * US$ million	Net Profit US$ million	Percentage
1.	M & R Holdings	2162	(21)	(1)
2.	LTA	811	19	2,4
3.	Aveng (Grinaker)	467	?	?
4.	Group Five	445	4	0,9
5.	Wilson Bayley Holmes Ovcon	198	8	4,2
6.	Concor (Hochtief)	195	2	1,3
7.	Basil Read (Bouygues)	145	6	4,0

* Converted at R6=US$ 1
Source Financial Mail 30.06.2000

Table 8 lists the largest South African contractors.

Relevant comments are that Stocks and Stocks no longer features following its unbundling in late 1999; Murray and Roberts leads with a total turnover of over US$ 2 billion; the recent purchase of LTA by Aveng will result in a contractor with a total turnover of about US$ 1.3 billion; two of the seven companies are owned by large European contractors, Bouygues and Hochtief respectively.

Table 9: Share of South Africa’s construction market by South African contractors

Share of market %		
Murray and Roberts	12	
LTA	6	12 Aveng
Grinaker	6	
Group Five	5	
Concor (Hochtief)	4	
Basil Read (Bouygues)	3	
Wilson Bayly Holmes	3	
Subtotal	39	
OTHERS	**61**	

Source: Financial Mail 30.06.2000

Table 9 indicates the domination of the South African construction market by the top seven contractors: nearly 40% of work in South Africa is currently carried out by one or other of the seven.

Table 10: Top South African contractors

		1999 Turnover US$ million	Number of Employees	Percentage of Work outside South Africa	Turnover per Employee
1.	Murray and Roberts	2.162	32.500	33 %	66.500
2.	LTA	811	12.500	55 %	64.900
3.	Grinaker	467	12.000	27 %	38.900
4.	Group Five	445	11.000	27 %	40.500
5.	Wilson Bayly Holmes Ovcon	198	3.000	30 – 40 %	66.000
6.	Concor	195	2.000	35 %	97.500
7.	Basil Read	145	1.500	54 %	96.700

Finally, Table 10 gives further information on the top seven contractors, including the amount of work currently carried out outside the home base. This is generally still lower than the 50% usual for established international contractors. Turnover per employee is substantially lower that the figures quoted for the largest American firms in Table 2.

Emerging contractors – South Africa

Motivated by South African government tender rules, a number of South African contractors have established associations and joint ventures with emerging contractors.

It is suspected that many of these associations are token or pro-forma, although a thorough investigation has not been pursued due to difficulties in obtaining information.

A number of other emerging contractors have established building companies and have focused on the low-cost housing market. In some cases these have encountered difficulties in maintaining quality standards.

Yet other emerging contractors have set up companies specialising in transport or/and labour and supply and have entered the sub-contract market, rendering services to the larger established contractors.

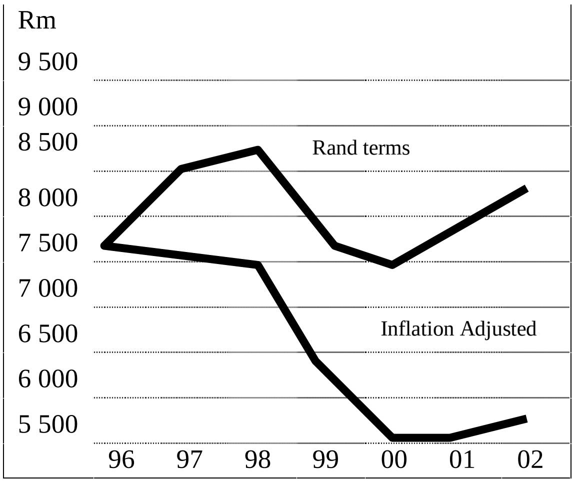
It is felt that the whole emerging contractor issue deserves further and deeper examination. This paper will focus on the plight of the established contractors while giving general recommendations that could help emerging firms develop.

Established South African contractors: Difficulties

The difficulties currently faced by the established South African contractors can be summarised as follows:

- Intense competition from experienced European and US companies in South Africa and throughout Africa.
- Their choice of sub-Saharan Africa as a suitable market when in fact it is a very difficult one.
- Reduction of their home market in South Africa. This is illustrated by the following Graphs 1 and 2 respectively.
- Fragmentation of contracts in South Africa by government to encourage the development of emerging contractors. Contracts in the range of US$ 200.000 are not unknown. A US$1 million contract is considered to be large. This helps emerging contractors but hinders established firms as it means they need to be geared to carry out small contracts in their domestic market and large contracts cross-border. This, as is known, stretches management capability unacceptably.
- Lack of managers and staff experienced in international contracting, which is evidently different from domestic work.
- Reluctance to invest in internationalisation. This takes a minimum of two years and may take up to ten for the company to consolidate its position. Shareholder pressure during the learning curve may lead the company to take a half-hearted approach.

Graph 1: Civil engineering turnover in South Africa, 1996 – 2002

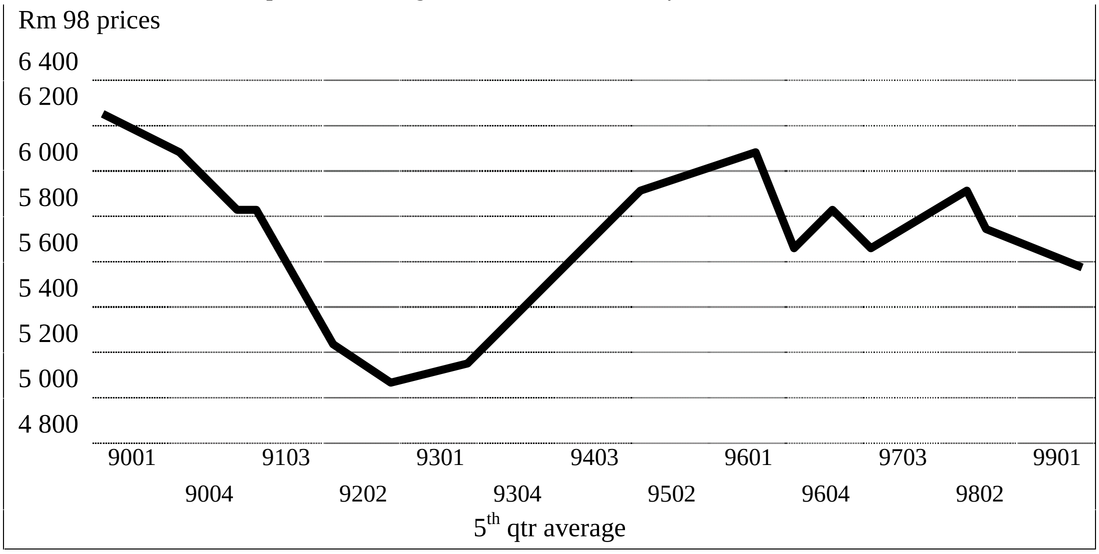


Source: SAFCEC

This graph shows that civil engineering turnover is expected to decrease from R7.7 billion (about US$ 1,1 billion) in 1996 to R5.8 billion (US$ 0,97 billion) in 2000, a decrease of about 25%.

An annual average civil engineering turnover per major company of about US$ 55 million in the home market is itself a very small amount (US$ 970 million x 0,4 ÷ 7= US$ 55 million).

Graph 2: Building investment in South Africa: 1990 – 1999



Source: BIFSA

Again, this graph shows building investment dropping from R6,2 billion in 1990 (about US$ 1 billion) to R5,5 billion (US$ 0,92 billion) in 1999, a drop of 11%.

Assuming a combined domestic turnover of building and civil engineering works of US$ 970 million plus US$ 920 million, this only gives an average turnover per major firm of US$ 108 millions which is very small by any standards.

Summarising, the domestic pool is too small for the existing group of established and expanding contractors.

South African emerging contractors: Difficulties

Some of the difficulties perceived to be experienced by South African emerging contractors are:

- Lack of capital
- Difficulty in accessing finance
- Lack of experience
- Lack of general and financial management training

SOLUTIONS

Introduction

It is well known that leading first world countries have adopted free market economies and have restricted the role of the State to certain basic activities. Control of private companies has been relaxed and their development encouraged, especially in the world market. International competition, world trade and the emergence of the electronic market are expected to lead to a reduction in the prices of goods and services and to allow the access of developing countries to international investment and cheap imports.

Following the lead of the US and European countries, development banks and the IMF are imposing this economic model on developing countries, forgetting that today's developed countries reached their present status only after protracted periods of growth under protected conditions.

It is well known too that today's powerful international contractors were developed within strong, protected home markets and their international status was often achieved with the help of export credits supplied by their governments and often open government support. It is no accident therefore that the international market is dominated by contractors from the US, Japan, China, UK, France, Germany, Italy and Korea.

The first proposed solution to the problems of contractors from small developing countries therefore is to provide donor and government support to regional contractors, to enable them to develop and mature.

The second solution involves the association of regional contractors to form strong groups.

Government support for emerging contractors

Governments usually encourage international investors to establish industries in their countries by providing tax holidays, free land, low cost energy and other incentives.

In the same way governments could support the development of their own emerging contractors with the following measures:

- Management training
- Interest free loans
- Tax holidays
- Subdividing government contracts into small value packages with, however, the overall contract being managed by a large local management contractor, and not by the government contracting department.
- Obliging tenderers for government contracts to joint venture with emerging contractors i.e. not to subcontract to them but to partner them.

Developing contractors

Developing contractors are those that are outgrowing their home base and which are seeking contracts cross-border. Alternatively, they are contractors which need to expand cross-border in order to survive, and not go bankrupt or be taken over by an international contractor.
Incentives would be:

- Tax holidays
- Export incentives
- Export credits and guarantees
- Interest free financing for the acquisition of plant and equipment
- Interest free financing for start-up costs overseas or cross-border
- Support for the establishment of export groups

Donor support

In order to shield emerging and regional contractors from the multinationals, tenders for all donor-supported contracts within the region could give a 15% preference to emerging and regional contractors respectively.

Again, large contracts would be broken up into relatively smaller packages with an overall local or international management contractor coordinating the whole.

Associations

Even large multi-national contractors associate to spread risks and increase their critical mass. This is particularly noticeable among European contractors where German, French, Italian and British companies associate on a project by project basis to an extent only now being developed by South African companies, which often associate with Europeans instead of between themselves.

This procedure could be adopted by emerging and regional contractors. The use of IT in this respect has been described in an accompanying paper on the development of consulting organisations in emerging countries. The procedures described could be adapted to small, medium and large regional contracting organisations.

For this to be successful it is felt that strong representative organisations are needed, to represent emerging and established contractors respectively. The advantages are, evidently, dilution of risks and start-up costs.

CONCLUSIONS

The main conclusions are:

- the large multinational contractors are increasingly dominating the world construction market
- established regional contractors need to seek work cross-border in order to grow and survive
- emerging contractors need to be nurtured in order to reach a sustainable size
- support for both emerging and developing contractors should be provided by their governments
- both categories of contractors can better defend their interests by strengthening their representative associations and forming joint ventures.

This conclusion is further developed as a recommendation in the next section

RECOMMENDATIONS

Summarising, recommendations are:

- Established regional and emerging contractors should strengthen their guilds or associations.
- Using these they lobby governments and donor agencies for preferential regional treatment.
- Using their associations they also establish joint ventures and consortia to provide critical mass to
  - share international tendering costs and risks.
  - compete against the multi-nationals.
- They examine the use of IT to facilitate the control of the associations.
- They contract project managers to facilitate the setting up of associations.
- Using their association, emerging contractors organise management training for their members.

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