Competitive Strategy in a Context of Low Financial Resources

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Abstract

Traditionally, competitive advantage has been based upon large-scale production and accumulation of large quantities of physical and financial assets. Large financially capable firms, particularly Multi-national Corporations (MNCs) and large construction firms create competitive advantages and sustain them through the use of such defence mechanisms as entry barriers and other competition-impeding features of industry structure.

Small firms in developing countries, especially in Africa can hardly mobilize financial resources to match the MNCs and the large construction firms, nor can they employ similar defence mechanisms due to their lack of global reach.

This paper argues that, firms with low financial resources should use a different strategy to do business. Instead of building and then defending competitive advantages, they should create temporary (dynamic) competitive advantages, which they should upgrade frequently to avoid the necessity of defending them and thus keep competitors of balance by forcing them to respond.

Using the construction industry in Botswana, the paper reports on a pilot study that investigated the factors that are crucial to creating constantly changing competitive advantage in the context of low financial resources. It concludes by emphasizing that firms operating in low financial contexts should create dynamic competitive advantages instead of imitating the strategies used by large financially capable firms.

Keywords: *Competitive advantage, strategy, low financial context, Multi-national corporation and global reach.*

INTRODUCTION

The ultimate purpose of strategic management has been to build competitive advantages in a way that makes them sustainable. In large firms, competitive advantages have primarily been resource-based, whereby large-scale production and accumulation of large quantities of physical and financial resources are the guiding principles. According to resource-based view of strategic management, it is the rational identification and use of resources that are valuable, rare, difficult to copy, and unsubstitutable which lead to enduring firm variation and supermodel profits (Barney, 1991, 1992). Amit and Schoemaker (1993)

define resources as input factors controlled and used by firms to develop and implement their strategies; and capabilities as capacities to coordinate and deploy resources to perform tasks. The definition of capabilities is clearly elaborated by Learned *et al.* (1969) who state "the capability of any organisation is its demonstrated and potential ability to accomplish against the opposition of circumstance or competition, whatever it sets out to do. Every organisation has actual and potential strengths and weaknesses; it is important to try to determine what they are and what distinguish one from the other". Capabilities emphasize the key role of strategic management in appropriately adapting, integrating, and reconfiguring internal and external organisational skills, resources, and functional competences to match the requirements of a changing environment (Teece *et al.*, 1997).

Resource selection and accumulation are a function of both within-firm decision-making and external strategic factors. While the former is guided by an economic rationality and by motives of efficiency, effectiveness and profitability (Conner, 1991) the later is guided by strategic industry factors that impact the firm, such as buyer and supplier power, intensity of competition, and industry and product/service market structure. Hence, since control over scarce resources is the source of profits, it follows that such issues as skill acquisition, management of knowledge and know-how and learning become fundamental strategic issues.

Whether resource selection and deployment result in enduring variation across firms will depend on barriers to acquisition, imitation, and substitution to inhibit competitors' ability to obtain or duplicate critical resources and lead to long run differences among firms in their ability to generate rents. Peteraf (1993) defines rents as the generation of above-normal rates of return. However, rent generating traits develop not only from the said barriers, but also from unique historical circumstances, such as a valuable physical location, and the accumulation of specialized capabilities, as well as strategic industry factors and market imperfections (Barney, 1991; Porter, 1991).

Against this background, this paper discusses how resources are used to create competitive advantages in the construction industry, and based on a pilot study in Botswana, the paper argues that in the context of low resources, firms should strive to create competitive advantages based on firm-specific capabilities.

RESOURCES AND COMPETITIVE ADVANTAGE

Competitive advantage has been defined as the ability to perform activities at a lower cost than rivals or the ability to differentiate and command a premium price that exceeds the extra cost of doing so [8]. Resources and capabilities that are valued by a firm for their potential to contribute to competitive advantage may be acquired in factor market (Barney, 1986) or built up through cumulative firm experience and "learning by doing" (Cool and Dierickx, 1994). Examples of valued resources and capabilities include machinery and equipment, reputation, buyer-supplier relationship, tacit knowledge, R&D expertise, and technological capabilities (Barney, 1991). Sustainable competitive advantage refers to the implementation of a value-creating strategy that is not susceptible to duplication and not currently implemented by competitors (Barney, 1991).

Resources can be specific either to the firm employing them or to a particular use or application. According to Ghemawat and del Sol (Ghemawat and del Sol, 1998) a resource is specific to a firm if its value to the firm exceeds its price in the factor market, while a resource is specific to a usage if its value decreases when a firm applies it differently. Strategy can provide a sustainable competitive advantage only if it is based on some firm-specific resources; otherwise, competitors can easily imitate the strategy, eroding any unique advantages (Ghemawat and del Sol, 1998).

As the value of a firm-flexible (non-specific) resource does not exceed the price in the factor market, competitors can easily imitate strategies that require only firm-flexible resources by acquiring them in this market. Thus, while firms may invest in firm-flexible resources to reduce their exit barriers, the trouble is that this kind of investment is also likely to reduce entry barriers [12]. Thus, to achieve sustainable competitive advantage, firms must build their product/service market positions around commitments of

some firm-specific resources. Investments in firm-flexible resources may be easier to reverse, but come at the cost of sustainability, as competition, and, more specifically imitation means that firms using only firm-flexible resources will probably generate mediocre returns (Ghemawat and del Sol, 1998).

On the other hand, a capability becomes strategic if it is honed to a user need, is unique and difficult to replicate. The key feature of difficult-to-replicate capability is that there is not a market for it, except possibly through the market for business units. Hence capabilities are intriguing assets as they typically must be built because they cannot be bought. Generally, the organisational processes, shaped by the firm's asset positions and moulded by its evolutionary paths, explain the essence of the firm's capabilities and its competitive advantage (Teece *et al.*, 1997).

The following section discusses the construction industry and the key resources used by construction firms.

THE CONSTRUCTION INDUSTRY

The construction industry contributes significantly to the Gross Domestic Product (GDP) of all countries. In the UK, for instance, the construction industry contributes about 10% of the GDP (DERT, 1998), while in Botswana this percentage is about 15 (NDP 8, 1997). Traditionally, the construction industry has been substantially influenced by the public sector, which in many developing countries is the major employer.

However, a general trend that has been brought about by globalisation is the larger share of the private sector participation in the construction industry. Although private sector participation has been prominent in building construction for many years, it now includes the construction of infrastructure projects that were previously considered the preserve of the public sector. Judging from recent trends in Asia (Raftery *et al.*, 1998) there is a shift from both the limited domestic budget resources and foreign aid for infrastructure projects to private financing, which is considered resourceful and efficient.

One important aspect of private financing in construction projects is that project sponsors form consortia of contractors, developers and financiers in order to tap into the expertise of the members in technology, project management and financing, and to share project risks. Since sponsors would not like to shoulder all project risks on their own, and as construction projects, especially infrastructure ones are becoming more complex, formation of consortia is gradually becoming a norm in private sector financing. To be eligible for membership in such consortia, a firm must demonstrate that it has some competitive advantage over others in some key areas of the project.

Resources in construction firms

The resources of a construction firm are almost always determined by the nature of the projects that the firm executes. This is because the tangible resources, particularly materials and machinery/equipment required to execute a particular project are the same regardless of which firm executes the project. Based on the premise that in an increasingly competitive market both global and local, all firms can obtain these resources and other factors of production at essentially equivalent cost, differences besides scale can not lie within resources. Substantial differences may, however, lie in the methods that different firms use to deploy resources. Thus, unless a firm is employing a unique technology that involves proprietary equipment, major strategic differences in construction firms lie in capabilities rather than in resources per se.

Furthermore, the nature of the construction industry is such that, each time a firm executes a construction project, it acquires resources (machinery, personnel and other physical assets) that may not be used in subsequent projects. This form of gradual accumulation usually causes constructors to end up with large quantities of resources in the long run, if there are no deliberate measures to dispose of them. Thus, while the firm might not intend to acquire a particular resource, the nature of the project it bids for might force it to do so.

In spite of this reality, large construction firms have often created competitive advantages based on accumulation of large quantities of physical and financial assets. To be able to create competitive advantage, firms with scarce resources should base their strategies on capabilities instead of imitating the large firms by basing them on resources.

The Construction industry in Botswana

From 1984, the end of the period when Botswana faced a severe drought and construction activities were suspended, the construction industry enjoyed a steady growth, which culminated in a boom in 1988–1992. This period witnessed the emergency of several citizen-owned construction firms, as well as entry of a number of international firms to the local market. Between the end of 1992 and the beginning of 1996 the volume of construction work drastically fell down causing many citizen owned firms to close down and some of the international firms to relocate to other countries. From the end of 1996 the volume of construction work started to rise again and at the moment (1999) the industry is experiencing another boom.

THE PILOT STUDY

This study targeted citizen-owned firms that have been in operation for more than ten years. It examines the types of resources acquired by these firms and whether there are any firm-specific capabilities used to deploy them.

Methodology

Ten large citizen owned construction firms all of which were registered in class B more that 10 years ago, were selected from a list of contractors registered with the Central Tender Board (CTB, 1992) as shown in Table 1. The firms are named A, B, C, D, E, F, G, H, I and J for anonymity. An inventory of the resources owned by these firms was carried out (Table 2) and through semi-structured interviews their chief executives were asked how they deploy the resources of their firms to perform tasks. Each firm was visited after prior appointment and interview with each chief executive lasted for about half an hour in their offices. Where visits to could not be arranged, the interviews were carried out by means of telephone. The questions that were asked concern building of capabilities and were centred on organisational processes, positions and paths as defined by Teece *et al.* (1997).

Table 1: Construction firms selected for the study

Class	Number of Citizen Contractors selected	Total Number of Citizen Contractors
E (Unlimited)	2 (A and J)	2
D (P* 4.0 to 8.0 million.)	5 (B, E, F, G, and I)	5
C (P 1.8 to 4.0 million)	3 (C, D and H)	32
B (P 0.6 to 1.8 million)	-	154

* I P (Pula) = 0.23 US$ (December, 1998)

Citizen owned construction firms were selected for this study because it is assumed that they have the same background, and an earlier study (Ngowi, 1998) found that as a group they enjoy such privileges as 2.5% price preference, up-front payment of 10% of the contract sum as mobilization allowance, reservation of certain types of projects and up to 40% of the total construction volume, government guaranteed bond as well as bail out if a firm encounters financial problems while executing the project. All the selected firms are involved in building projects although the majority (70%) claimed to be general contractors. There was no evidence to this claim, as none of these firms has carried out infrastructure projects other than minor site roads.

Table 2: Inventory of the resources of the firms

Resource \ Name of firm	A	B	C	D	E	F	G	H	I	J
Tangible resources										
Concreting plant (central)	Yes	no	no	no	no	yes	no	no	no	yes
Small Concrete plant (No.)	3	1	1	2	2	2	2	2	1	3
Trucks (No.)	5	1	2	3	1	3	2	2	3	8
Small Plant*	Yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Well equipped Workshop	Yes	no	no	yes	yes	no	no	no	no	yes
Basic Survey Equipment	Yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Lifting equipment**	1	0	0	0	0	1	0	0	0	1
Intangible Resources										
Engineers	3	1	0	1	2	2	3	1	2	3
Quantity Surveyors	1	1	1	0	0	1	2	0	1	2
Trained Managers	2	1	1	1	1	2	0	1	1	1
Computer specialists	1	0	0	0	0	1	0	0	0	2
Skilled craftsmen	39	21	16	14	17	27	24	20	26	45
Finances***										
Proprietary technology	-	-	-	-	-	-	-	-	-	-
Reputation (Age in years)	12	11	16	10	12	14	14	13	12	16
Reputation (Projects done)	18	13	19	12	14	17	15	15	14	29

* Small plant includes among others, compactors, vibrators and various saws

** Lifting equipment includes mobile and stationary crane and hoist

*** None of the firms was willing to disclose financial information

Responses to interview questions

The following section contains responses to the questions asked during the interviews with the chief executives of the selected firms.

The meanings of the words resources and capabilities as applied to strategic management were explained to each respondent before the question "What factors influence the acquisition of resources in your firm?" was asked. The responses to this question established that a general factor that influences acquisition of resources is the type of project that a firm executes. From the inventory of the resources owned by these firms, it appears that all firms have acquired similar tangible resources, except lifting equipment, central concrete batching plant and well equipped workshop, which have been acquired by the highest graded firms, i.e., firms A, F and J. The reason given by respondents from firms A, F and J for acquiring lifting equipment is that they are involved in the construction of tall buildings that may involve lifting operations at a time when hire firms can not make them available. Also as they carry out some of their activities in the remote areas of Botswana, they cannot rely on ready mix concrete that is available in the urban areas. For this reason, they had to acquire large concrete batching plants.

To determine the capabilities of the firms, information about their organisational structures, positions and the paths taken by the firms was sought. Descriptions of four different types of organisational structures, i.e., entrepreneurial, functional, matrix and divisional were given to the chief executives and then they were asked to identify the ones that closely matched those of their firms. Table 3 shows the summary of the responses. While firms C, D, G, H and I are based on entrepreneurial organisation, which is characterized by vertical and horizontal centralization, firms A, B, E, F and J are based on functional organisation, which is characterized with standardisation of outputs and limited horizontal decentralization. The importance of organisational structure lies in the degree with which activities are coordinated and how quickly the firm can learn new processes and reconfigure to react to changes in the environment. This capability is firm-specific because the degree of hierarchy and the level of vertical and lateral interaction differ from firm to firm. From theoretical organisational models by Mintzberg (1983) and studies by Shirazi et al. (1996) and Ngowi and Rwelamila (Ngowi and Rwelamila, 1998) entrepreneurial organisations are adaptive to simple

and dynamic, but sometimes hostile environments, while functional organisations are most suitable for stable environments and are guided by norms of efficiency. It follows that firms based on the latter type of organisation are expected to deploy their resources more efficiently than the ones based on the former type of organisation. This study showed that the firms with functional organisations have upgraded their classes faster than those with entrepreneurial organisations.

Table 3: Organisational structures of the selected firms

Firm	Structure	Coordinating Mechanism	Type of decentralisation
C,D,G,H,I	Entrepreneurial	Strategic apex	Vertical and Horizontal centralisation
A,B,E,F,J	Functional	Standardisation of process	Limited horizontal decentralization

According to Teece *et al.* (1997) position of a firm refers to its current specific endowment of technology, intellectual property, complimentary assets, customer base and its external relations with suppliers and complementors. Based on this definition, the chief executives were asked whether they use any technology that they consider to be firm-specific. The responses to this question indicated that none of the firms use firm-specific technologies in their operations, as the nature of the projects they execute does not require the use of such technologies. However, firms A, F and J have acquired the services of trained construction managers and computer specialists so as to introduce modern management techniques and information technology (IT) in their operations. These respondents said that this decision was made necessary by the increasing demand by clients to enhance quality and reduce operational costs as well as to keep abreast with the changing scenario brought about by globalisation. The acquisition of management systems and IT enabled these firms to create firm-specific capabilities.

The chief executives were asked to name the complimentary services that they thought were of strategic importance to their firms. All respondents mentioned materials production and supply; and plant hire as the most important services that lie outside the internal structure of their organisations. Firms B, C and E also mentioned transport of bulky materials as an important service that is handled outside their internal organisational structure. Other complimentary services that were mentioned by the majority of the respondents were steel fabrication and building services (air conditioning, elevators and acoustics), which are normally carried out by sub-contractors. All respondents stated that the quality and efficiency of these services greatly influenced the performance of their firms. This is in line with Porter's (1998) observation that "what happens inside companies is important, but clusters reveal that the immediate business environment outside companies plays a vital role as well". Porter [21] defines a cluster as "geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition. They include for example suppliers of specialized inputs such as components, machinery and services…"

On the question of customer base, all firms responded that their main client is the government and as such there are standard procedures for engagement and predictable expectations. However, it was established that firms A, B, F and J obtain about 40 percent of their revenue from private projects in which the clients are either private firms or individuals. To win such projects, the firm should have good reputation and good relationship with the client over and above putting up a competitive bid. It was further established that the relationship of firms A, B, E, F and J with material suppliers and plant hirers is very close to the extent that firms F and J are share holders in two major building materials merchants in the country. The responses of firms C, D, H and I indicated that their relationship with the material suppliers is not that close because they have not been able to pay their material credits on time resulting in constant reminders and tension.

Although all firms have upgraded the classes under which they were registered, firms A and J have managed to reach the highest class E, within 12 and 16 years respectively. The chief executives of these firms were asked to describe the paths that their firms followed to reach such commendable progress. The response from firm J indicates that the management of the firm decided from the outset to employ, train and retrain highly skilled artisans in masonry, carpentry/joinery, tiling and plumbing among other skills. As a

result, the firm has built a reputation of high quality workmanship. This reputation has enabled the firm to win a number of projects in the private market. As a second step, the firm introduced efficient project management systems, which has enabled it to complete its projects within the stipulated time and budget. Since cost, quality and time are the key determinants of any successful construction contract, the firm has managed to build competencies that ensure that these determinants are met for each and every project undertaken.

Responses from firm A, on the other hand, indicated that the firm took a different path from that of firm J. Having established a core of dedicated foremen, the management of the firm decided to give them some stake in the firm by allocating them shares paid for by firm profits. As a result, the foremen became even more dedicated and this dedication was passed downstream to the extent that none of the highly skilled artisans has ever left the firm. The next step in the path of development in this firm was to employ professionals such as engineers, quantity surveyor and project manager and the incentive of share allocation was extended to them. Finally, the firm introduced IT systems to control budget, costs and movement of materials. With these two descriptions it shows that all firms followed some firm-specific paths, some of which were more successful than others and hence the differences in their current classes.

CONCLUSIONS

This study attempted to show how firms could create and sustain competitive advantages by building firm-specific capabilities.

The pilot study in Botswana showed that tangible resources in construction firms are determined by the nature of the projects the firm is involved in and their acquisition might not necessarily give the firm a competitive advantage. Traditionally, large construction firms have created competitive advantages by accumulating large quantities of physical and financial assets. Differences among the traditional large construction firms, therefore, relate primarily to scale and not strategy.

However, firms that cannot muster large quantities of resources might build firm-specific capabilities that enable them to create and sustain competitive advantages. Thus, a competitive advantage in the construction industry may be sustained if a firm strategically acquires resources that enable it to build firm-specific capabilities.

RECOMMENDATION

This study was limited to ten citizen-owned construction firms in Botswana. It is recommended to carry out further work involving a representative sample from all construction firms operating in Botswana regardless of their ownership. A study to compare the strategies used in Botswana with other South African Development Community (SADC) countries in sustaining competitive advantages is also recommended, and so is a study involving other industries.

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