

MARKETING DEVELOPMENT IN CIVIL ENGINEERING CONSULTANCY FIRMS IN SOUTH AFRICA

P D Rwelamila¹ and S M Machete²

¹*Centre for Strategic Studies in Construction (CSSC), Department of Construction Economics and Management, University of Cape Town, Cape Town*

²*T Mashologu, Bernard James and Partners Quantity Surveyors, Cape Town*

The paper reviews the overall marketing concept as reported in the literature, determines the level of applications of the marketing concept in consulting firms, and establishes the current practice of marketing in consulting civil engineering firms in South Africa. Consulting civil engineering firms in the Western Cape have adopted marketing concepts in their practice. The majority of firms reported the existence of marketing departments or designated individuals. Marketing was found to be an activity that involved all of the employees of the firms. However, most of the firms had neither a marketing research department, nor carried out any formal research into the markets. Furthermore, civil engineering practices placed very little emphasis on the communications aspect of marketing such as advertising. Marketing is considered a legitimate management function by consulting civil engineers. However, it is still being implemented in a haphazard fashion and is largely unstructured and informal. It is recommended that in order to implement marketing, firms need to: define their company's objectives; plan their marketing strategies around client's needs; implement their marketing strategies in such a way that all employees are involved, and carefully monitor and control the marketing programme.

Keywords: Civil engineering consulting firms, marketing, south africa.

INTRODUCTION

The marketing of professional services within the English Commonwealth Countries (ECC) has traditionally been restricted by governing professional institutions as part of a strict code of ethics. According to Wheatley (1983), the changes experienced in the professional environment since the 1960s have forced consultants to adjust in order to survive and prosper. This has led to a marked shift towards marketing within the professions (Kotler and Bloom, 1984). In the United Kingdom (UK), Faulkner *et al* (1989) contends that, between 1979 and 1984, the marketing of consultancy services amongst civil engineers was felt to have grown in importance.

In South Africa, this growth in importance was illustrated in 1987 when the Competition Board demanded that minimum fees be abolished (Sinclair, 1987). In that same year, architects and quantity surveyors lifted restrictions in their codes to allow limited advertising. Despite these developments, Morgan and Morgan (1991) in the UK, and Rwelamila and Bowen (1995) in South Africa, found that the marketing of professional services was still largely unstructured, uncoordinated and disregarded the importance of marketing communication strategy in the construction industry.

Morgan and Morgan (1991), for example, argued that engineers were found to be lacking in the educational background necessary to implement marketing techniques. Despite this, they were found to be unwilling to hire marketing consultants, partly due to their lack of specific knowledge to promote engineering services (Namo and Fellows, 1993).

In South Africa, the environment of the consulting engineer has changed drastically in the last twenty years. Quantum leaps in technology, knowledge and management styles have outmoded former practice methods and techniques. Being up-to-date, learning, adapting, changing and even pioneering change are ever-growing responsibilities of the modern professional (Wheatley, 1983). Some of the challenges facing consulting engineers in South Africa are discussed below :

Increased competition

Hindle and Rwelamila (1995) describe the development of new procurement systems that are leading to the demise of the architect as principal agent. This development is also reported in South Africa by Hoeks (1995) and Rwelamila (1996). This is significant for consulting engineers because in most instances when the typical traditional building procurement system is applied, civil engineers are appointed as a result of recommendations from architects in building projects. Clearly, this implies a need for strategies to counter the threat, and marketing presents the best solution.

Political changes

The change in government may have had positive social effects but Vance (1996) describes it as having had an unsettling impact on the civil engineering industry with immediate forecasts for the sector being relatively gloomy, due to change in focus to non-civil engineering work.

The Reconstruction and Development Programme (RDP)

The biggest challenge facing the civil engineering industry is adapting to the principles outlined by the government's Reconstruction and Development Programme. Langenhoven (1995) suggests that the RDP will especially impact on engineering consultants because of the "labour enhanced/based" way in which government intends to apply the programmes. Lister (1996) sees this as an opportunity for engineers to develop their community liaison skills as well as expertise in labour intensive construction methods.

The new engineering contract

The introduction of the new engineering form of contract (NEC) presents an opportunity for consultants to become expert with it (Loots 1995) and offer expert advice based on it.

Managing fluctuations in the business cycle

South Africa experiences a shorter business cycle than industrialized countries (Hindle, 1995). This implies that managers in South Africa have more need to manage demand cycles because they will experience twice as many fluctuations as their counterparts in industrialized countries. Hindle (1995) contends that managers need to be more pro-active by managing demand fluctuation.

Business sentiments in the South African construction industry

Stuart (1996) predicted that civil engineering activity would accelerate during 1996, and the perception that government institutions were expected to begin to generate

more work during calendar 1996. These predictions were a true reflection of current construction activities. Most construction stakeholders are busy, and there are indications to suggest that the South African sector's upswing will continue. With the expected further upswing in the civil engineering industry, it is important that consultants gear themselves to meet the expected challenges. During that period, it is likely that the firms that market themselves well will get, and retain, new clients.

This study investigates further into marketing development in civil engineering consultancy firms by reviewing past studies and analysing feedbacks from firms using questionnaires.

REVIEW OF PAST WORK

Although there is a wealth of tautology literature about the marketing concept and techniques, very little of it is dedicated to professional services marketing. Even less research has been conducted into the marketing of professional services with respect to the construction industry.

Most of the information available is based upon the American experience, with supporting research from the United Kingdom. There is a need for research to be conducted in a South African environment with specific reference to professional service marketing in the construction industry. This is mainly because of a unique construction environment.

In defining marketing, Scanlon (1988) argues that businesses can be regarded as having three main components, namely:

- i) markets, providing opportunities to supply services or products and so generate revenue;
- ii) activities, constrained by resources and limiting business transactions to specific services and products, and
- iii) competition, setting price and service expectations and so tending to limit further the sales opportunities of the business.

Marketing, in the context of the above components, can be described as an attitude of mind which aims at increasing profits by means of linking most effectively all activities of a business such as planning, estimating, buying, sitework and administration to the needs of the Client (Fisher, 1986).

An enterprise operates within a marketplace comprising a "mix" of the specific services / products it offers; the clients / customers it aims at serving, and competitors.

Within this marketplace, the operational management of the enterprise is charged with producing adequate services or products in a competitive environment, i.e the "activities" of the enterprise. According to Rwelamila and Bowen (1995), these services or products are then "sold" - the process of creating volume by placing services / products into a marketplace in a competitive environment.

Consulting engineering can be considered as a professional service, where qualified and skilled engineers offer services of an advisory nature (Gummesson, 1979).

Bennion (1969) suggest, six attributes required in order to qualify for professional status. These are : *the requirement of an intellectual body of knowledge, work of an advisory nature, the existence of a private practice, a tradition of service, a suitable*

code of conduct and a governing professional institution. According to Wilson (1972), this service can further be classified under the label of “producer services” because it is typically offered to organisations rather than individuals for consumption.

The civil engineering profession in South Africa is governed by two bodies, i.e. the South African Institute of Civil Engineers (SAICE) and The South African Association of Consulting Engineers (SAACE). Over the last decade, the consulting engineering profession has had to deal with many changes, the most noteworthy of these being brought about by the abolition of the minimum fee as demanded by the Competition Board in 1987. According to Sinclair (1987), this led to the codes governing professional practice being amended to allow work to be accepted on a competitive fee basis. In addition, the South African Association of Consulting Engineers relaxed its restrictions on the use of advertising. Despite these changes, the Association still believes that the selection of a firm should be based on proven ability and suitability rather than the negotiation of fees.

Components of the marketing environment

Wheatley (1983) and Cronje et al (1987) describe a marketing environment as comprising both macro and micro variables. The micro-environment consists of the internal environment of the enterprise that is under the control of management.

Opportunities and threats in the market environment

In order to formulate a successful marketing strategy, the marketer must have a complete knowledge of the environment in which the enterprise operates. Sinclair (1987) stresses the importance of being sensitively attuned to external forces and being aware of the impact they can have on the development of the enterprise. These forces represent both threats and opportunities to the business that can be used advantageously. The South African civil engineers need to identify and understand these forces in order to face the changing construction sector.

Promotional activities and communication

Cronje *et al* (1987) define marketing communication as the process of informing, persuading and reminding the consumer. Marketing communication is essentially made up of four elements that can be used in a specific combination to communicate with consumers. According to Kotler and Bloom (1984), these four elements are advertising, personal selling, sales promotion and publicity.

THE SURVEY

A questionnaire survey was undertaken to determine whether civil engineering consultants are implementing basic marketing principles outlined in the previous sections of this paper. The findings from the survey will be used to test the proposition.

Methodology

This study is a continuation of research undertaken into the role of marketing in selected professions in South Africa by Rwelamila and Bowen (1995) Quantity Surveyors; Lethola (1995) - Specialist Engineering Services; Hoeks (1995) - Architectural Services amongst others.

The study is based on the following proposition:

- *formal marketing techniques have not yet gained widespread acceptance within the civil engineering profession and*
- *where marketing is applied, it is largely unstructured and informal.*

The method of approach uses a questionnaire which is an embodiment of the past work. Postal questionnaires were sent to civil engineering practices rather than individuals. The firms were randomly selected from the Professions and Projects Register of Southern Africa (Bouchner, 1995). Care was taken to avoid duplication of results by not sending questionnaires to different branches of the same firm.

The total survey size amounted to all Western Cape Province civil engineering consulting firms (thirty firms). Nineteen replies were received, of which eleven were suitable for analysis. This constituted a response rate of 37% which is considered acceptable for a survey of this nature.

Analysis

All questionnaires were answered by senior partners.

Basic statistical methods are used for the analysis of the data collected. The analysis has been carried out closely in line with Morgan and Morgan's (1991) work.

Organisation for marketing

Table 1: Existence of a formal marketing department (n = 11)

Response	% of firms
Yes	82%
No	18%

Eighty two percent (82%) of the respondents reported the presence of either a designated individual or a marketing department.

For those reporting the existence of a marketing department or a designated individual, it was found that, in the majority of instances (45%), this situation had prevailed for at least 5 years. These results are in agreement with those of Rwelamila and Bowen (1995), but are in contrast with those of Morgan and Morgan (1991).

Information was sought relating to the number of persons employed within the marketing departments. These results reveal that the majority (50%) of consulting civil engineering practices have between one and three people responsible for marketing. This was also found to be true of architectural practices (Hoeks, 1995) and specialist engineering firms (Lethola, 1995).

Further analysis of marketing employees numbers indicated a fairly stable trend in marketing. This evidence gives an indication to suggest that, given the limited marketing organisation within consulting civil engineering firms, those firms that have adopted such an approach are set to maintain, or slightly develop their current organisation structures for marketing.

Table 2: CME job title (n = 9)

Title	% of firms
Senior partner / director (no actual title)	56%
All partners / directors (no actual title)	11%
Marketing partner / director	22%
Marketing co-ordinator heading a committee	11%

The chief marketing executive (CME) and marketing responsibilities

The survey sought to establish the role of the individual assigned the position of the head of marketing, the CME. Table 2 records the responses relating to the title given to the head of marketing. In the majority of instances (67%), the person(s) responsible for marketing comprise one or more of the partners, with no actual title relating to marketing. Within this group, 56% of respondents report this position being filled by the senior partner or director. Clearly, marketing does not enjoy a distinct organisational identity, at least in terms of job title.

When the reporting level of CME’s was analysed, it was found that they report to either the senior member of the firm (44%) or a group of senior members (56%).

In order to establish the perceived status of the CME in relation to other functional heads within the firm, respondents were asked to comment in this regard.

The majority (89%) of cases report that CME’s enjoy equivalent status to other functional heads, while 11% identified lower status.

Table 3: CME marketing responsibility

Frequency of responsibility (%)						
Area of responsibility	Full and sole	Major but shared	Equal with others	Some resp.	No resp.	N/a
Advertising	0	71	29	0	0	0
Promotional activities	0	63	37	0	0	0
Public relations	0	75	25	0	0	0
Fee income forecasting	0	38	38	0	12	12
Marketing research	12	38	50	0	0	0
Marketing planning	0	50	50	0	0	0
Service selection and development	0	37	63	0	0	0
New service launches	0	38	50	12	0	0
Diversification studies	0	50	38	0	12	0
Marketing staff selection	12	25	25	0	13	25
Marketing training	0	50	25	0	12	13
Corporate training	0	50	38	0	12	0
Fee structuring	0	50	38	0	12	0

To enable the marketing tasks assigned to the CME to be explored, a selection of responsibilities often associated with the marketing function were proposed and respondents invited to measure the responsibility on a scale of 1 to 5 (1 = full responsibility; 5 = no responsibility) (Table 3). The results illustrate that the CME does not have full responsibility over most of the marketing functions. In the majority of cases it was found that the responsibility of making decisions in these areas is shared with the other partners to a greater extent than solely by the CME. CME's report that the areas in which they enjoy the most extensive authority (at least "major") comprise those of public relations (75%), advertising (71%) and promotional activities (63%). The only areas in which they enjoy full and sole responsibility are marketing research (12%) and marketing staff selection (12%). It may be concluded that, although the position of CME exists, this alone does not suggest that the potential role of marketing is being fully exploited. Considerable potential exists for the development of the CME's role in the majority of areas listed.

Responses were sought from those firms where a formal marketing department or designated marketing individual does not exist. Only two respondents were applicable to this analysis. In both instances, the partners or senior managers undertook all the activities.

The remainder of this paper is devoted to an analysis of data received from all respondents, regardless whether a formal marketing organisation exists or not.

Marketing information

This section of the study examines the information processing elements of marketing information considered important in professional service firms.

Table 4: Existence of a formal marketing research unit (n = 10)

Existence of a marketing research unit	Response of firms (%)
Yes	10%
No	90%

It can be seen from Table 4 that the majority of firms have no formal marketing research group.

Table 5: Usage of marketing research types

Type of marketing research	Frequency of occurrence		
	Frequently (%)	Occasionally (%)	Never (%)
Market potential for existing offices	28	36	36
Market potential for new offices	27	27	46
Market share analysis	9	36	55
Market characteristics	20	50	30
Client characteristics	28	36	36
Advertising effectiveness	20	20	60
Advertising media research	10	20	70
Advertising copy research	10	10	80
New service accepting and potential	20	30	50
Studies of competitors	8	46	46
Pricing studies	18	46	36
Research into business trends	18	46	36

Given that the existence of such units is not necessarily a requirement of effective marketing research and information processing, the frequency of use of certain types of marketing research was measured (Table 5). These results derive from those respondents both with and without marketing research units in their firms.

The high incidence of firms never using the various marketing research activities is noteworthy, especially in the fields of market potential for new offices (46%), competitor analysis (46%), market share analysis (55%), new service accepting and potential (50%), advertising effectiveness (60%), advertising media research (70%) and advertising copy research (80%).

These findings are consistent with those of Namoi and Fellows (1993), who established that consulting engineers pay little attention to marketing communications as an important area of both research and practise.

Table 6 : Marketing culture of firm

This firm believes that its knowledge of its existing and potential clients is such that :	True (%)	More true than false (%)	Difficult to say (%)	More false than true (%)	False (%)
Needs no marketing research from external agencies	9	9	28	27	27
Needs no marketing research, either in-house or external	0	9	9	27	55
Engages in informal in-house marketing research	27	46	9	18	0
Marketing research is done on a client by client basis	9	55	9	27	0
It buys in outside marketing research	9	0	18	37	36

In an effort to establish the marketing culture of consulting civil engineering practices, firms were questioned on the extent to which they consider marketing research to be important. More specifically, respondents were asked to comment on the source and nature of their marketing research (Table 6). It is evident that the majority (73%) of respondents are of the opinion that their knowledge of existing and potential clients is such that it is sufficient to engage in informal, in-house marketing research. This research is often done on a client-by-client basis (64%). This supports the evidence that marketing research is performed predominantly in an informal in-house manner.

Marketing policies

A number of questions were devoted to establishing the marketing policies of the firms. The responses were measured using attitude statements, with each statement being scored on a 5 point Likert scale from total agreement (“true”) to total disagreement (“false”) with the midpoint set neutrally (“difficult to say”).

Table 7: Client orientation and corporate culture

Statements	True (%)	More true than false (%)	Difficult to say (%)	More false than true (%)	False (%)
My firm thinks of itself as providing a service rather than selling a product	100	0	0	0	0
Employees of my firm view the business through the eyes of their clients	36	27	9	28	0
Employees of my firm would take a quality complaint as a personal insult	40	50	0	0	10
My firm constantly seeks to improve its total offering defined in terms of more value for their clients	82	18	0	0	0
An important objective of my firm is to provide a reliable high value-added service	100	0	0	0	0
My firm encourages feed-back from its clients	82	9	0	9	0
My firm feels that innovation and change come direct from the client	9	0	9	27	55
My firm is dominated by :					
A belief in being “the best”	82	18	0	0	0
A belief in the importance of the details of execution, the “nuts and bolts” of doing the job well	64	36	0	0	0
A belief in the importance of people as individuals	56	27	17	0	0
A belief in superior quality and service	82	18	0	0	0
A belief in the importance of informality to enhance communication	36	56	0	8	0
Explicit belief in and recognition of, the importance of economic growth and profits	56	36	8	0	0

The statements contained within Table 7, provide an indication of the degree of client orientation and type of corporate culture within respondent firms, as well as the perceived attitude towards marketing throughout the firm.

It would appear from these results that consulting civil engineers are becoming more client-orientated. These responses indicate that there is a high awareness of what

clients expect from consulting civil engineers' services. Furthermore, these engineers seem to be attempting to find ways of improving their services through encouraging feedback from clients.

Table 8: Marketing attitudes

Statement	True (%)	More true than false (%)	Difficult to say (%)	More false than true (%)	False (%)
My firm believes that all its employees are involved in marketing	9	18	0	27	46
The employees of this firm believe that they are involved in marketing	9	56	26	9	0
Prospective employees are selected on the basis of technical excellence only	8	56	0	18	18
Service providers in this firm are trained in communication skills	90	36	18	18	28
The function of marketing is to sell the services that the firm produces	46	27	18	0	9
A well designed professional service will sell itself	20	40	0	20	20
Our main task is to increase fee income. Profits will follow naturally	9	27	27	9	28
Further increases in profitability will be achieved mainly by efficient service delivery	36	46	9	9	0
Marketing can be damaged by a firm's professional reputation	82	18	0	0	0
Marketing is inconsistent with professional ethics	0	0	18	0	82

The statements in Table 8 consider the attitude towards marketing throughout the firm. A trend emerged indicating that the attitude towards marketing held within respondent firms is such that it is accepted as a "legitimate" business function. It is interesting to note that 65% of respondents' employees believe that they are involved in marketing. This would indicate a high level of commitment towards the marketing function. However, this is somewhat undermined by the low priority (36%) given to community skills training. In addition, the responses (73%) indicate that the marketing function is often mistakenly viewed as a sales perspective, and that success and long-term profitability are more concerned with operational efficiency rather than accepting a marketing stance to serve customer needs effectively. These findings are consistent with those of Morgan and Morgan (1991).

Marketing strategy

The final section of the survey was dedicated towards the marketing strategies pursued by consulting civil engineering firms. Firstly, respondents were asked to comment on their major marketing goals (Table 9).

Table 9: Marketing goals of firms

Marketing goals	True (%)	More true than false (%)	Difficult to say (%)	More false than true (%)	False (%)
Defending and holding the market	56	26	0	18	0
Increasing our market share	73	18	9	0	0
Entering new client markets with existing services	73	17	0	0	0
Developing new services for our existing markets	56	44	0	0	0
Diversifying into new areas involving both new services and new clients	36	36	0	28	0

The classification of strategies is unclear, although such may loosely be classified as being either offensive or defensive. All of the firms (100%) believe that they pursue all of the various marketing goals listed. Rwelamila and Bowen (1995) warn that such results must be viewed with circumspection as there is a difference between what firms **think** they do and what they **actually** do in terms of marketing.

Secondly, respondents were asked to indicate the relative importance of certain elements within marketing strategy from a list of probable elements.

Technical service excellence (100%), utilisation of technology (91%), range of services provided (92%) and image of the firm (91%) were rated very important by the respondents. Interestingly, respondents also seemed to place much importance to the personal contacts of staff (91%), which would support the view of high employee involvement in marketing (see Table 3.14).

It is also apparent that civil engineering consultants do not attach much importance to advertising, with only 18% of respondents describing it as fairly important. This is consistent with the findings of Namoo and Fellows (1993) and Morgan and Morgan (1991) who found that it is more difficult to judge the effectiveness of service advertising. South African civil engineers, consequently do not appear to see the value of advertising as one cannot directly relate profit to advertisements. Thus, the perception that exists is that advertising is a waste of money and is not worth the cost. 73% Of respondents consider the level of fees to be important as these can be used in competition with other firms.

Testing the proposition

Some interesting results have been revealed by this study. Marketing does exist as a “legitimate” management function in the consulting engineering profession and this is reflected by the high existence of formal marketing departments or designated individuals to perform that role.

The results further show that the majority of firms see marketing as an activity applicable to all employees. In addition, consulting civil engineering firms showed an increasing inclination towards client orientation. Despite this, the majority of firms

ignore advertising as a means of promoting their services. Similarly, firms neglected communication skills training as an integral part of their marketing programmes.

Further results indicate that the marketing function is still mistakenly viewed as a sales perspective, and that success and long-term profitability are more concerned with operational efficiency rather than accepting a marketing stance to serve customer need effectively.

The majority of firms were found to engage in marketing research in an informal “in-house” manner. The majority of firms believe that they are pursuing all of the goals that were listed in the questionnaire.

The results from this survey show that, whilst marketing has gained widespread acceptance, it is only the “trappings” which are implemented. These results are considered to be conclusive enough to prove the proposition that :-

- a) **formal** marketing techniques have not yet gained widespread acceptance within the civil engineering profession; and
- b) where marketing is applied, it is largely unstructured and informal.

CONCLUSIONS

The analysis of the questionnaire survey led to the following conclusions:-

- i) Organisation for marketing - From the responses it is concluded that the majority of Western Cape civil engineering practices have in place organisational structures for the implementation of marketing. However, these structures represent the “trappings” rather than the substance of marketing.
- ii) The chief marketing executive and marketing responsibilities - Marketing does not enjoy a distinct organisational identity in terms of job title of the individuals responsible for marketing in Western Cape practices. Furthermore, the chief marketing executive in these firms does not enjoy the full responsibility for marketing activities.
- iii) Marketing information - Civil engineering firms do not have formal marketing research units, and research is carried out in an informal manner. Most practices feel that they have sufficient information about clients to carry out informal, in-house research.
- iv) Marketing policies - Western Cape civil engineering practices display a high level of client orientation. The majority of these practices view marketing as a legitimate business function and view technical service excellence as a crucial marketing strategy.

RECOMMENDATIONS

On the basis of the findings and conclusions, the following recommendations are made`-

In order to implement an effective marketing programme, civil engineering firms need to:-

- Have in place organisational structures that enjoy distinct identities within these firms. Such structures must have clearly defined marketing objectives with a distinct mission statement. The implementation of marketing within

firms should be formalised and carried out in carefully planned and controlled actions under the control of the CME. Employees should be fully involved in the implementation of marketing in firms.

- Research the markets consistently in order to always be in touch with the environment. This will help civil engineering practices to react to changes better and to anticipate trends in the building industry. Formal research will allow practices to deal with the threats and take advantage of opportunities in a profitable manner. Just as importantly, such research will help managers to know what clients want instead of guessing.
- Overcome psychological barriers that view marketing and advertising as being unethical practices. Although professional firms should always have an ethical principle, practices should also embrace commercial principles that will allow them to run as businesses.

REFERENCES

- Cronje, G.J., Neuland, E.W., Hugo, W.M. and Van Reenen, M.J. (1987) *Introduction to business management*, Southern Book Publishers, Halfway House.
- Faulkner, A.C., Sargent, J.H. and Wearne, S.H. (1989) Civil engineer's managerial roles and needs : report of survey, *Construction Management and Economics*, **7**, 155-174.
- Fisher, N. (1986) *Marketing for the construction industry*. Longman.
- Gummesson, E. (1979) The marketing of professional services: an organisational dilemma, *European Journal of Marketing*, **3**(5), 308-318.
- Hindle, R.D. (1995) Managing demand fluctuations in the construction industry, *Building and Construction*, **10**(4), December, 5-14.
- Hindle, R.D., and Rwelamila, P.D. (1995) Architectural education and training and the demands of a changing environment, *Proceedings of the All Africa Conference : Africa 200 - Towards the Millennium*, April 1995, Cape Town.
- Hoeks, A. (1995) *Review and analysis of marketing development in architectural firms in south africa: the case study of the western cape*, Unpublished B.Sc Construction Management Dissertation, Department of Construction and Economics and Management , University of Cape Town.
- Koter, P. and Bloom, P.N. (1984) *Marketing professional services*, New Jersey: Prentice-Hall.
- Langenhoven, H. (1995) *The macro-economic impact of the RDP on the construction industry: the professions and projects register of Southern Africa 1996*, Johannesburg: Avonwold Publishing.
- Lethola, T (1995) *Appraisal of the marketing development in specialist engineering services in South Africa: the case study of the western cape*, Unpublished B.Sc. Quantity Surveying dissertation, Department of Construction Economics and Management, University of Cape Town.
- Lister, G. (1996) *How to manage projects in the new South Africa (Part II)*, *Project Pro*, **6**(1), February, 32-34.
- Loots, P. (1995) *The new engineering contract: it's legal implications (Part II)*, *Project Pro*. **9**, 355-368.

- Morgan, R.E. and Morgan, N.A. (1991) An appraisal of the marketing development in engineering consultancy firms, *Construction Management and Economics*, 9, 355-368.
- Namo, F. and Fellows, R.F. (1993) The role of advertising in marketing civil/structural engineering consultancy firms, *Construction Management and Economics*, 11, 431-441.
- Runyon, K.E. (1984). *Advertising*, Ohio: Merrill Publishing Co.
- Rwelamila, P and Bowen, P (1995) *Marketing development in quantity surveying consultancy firms in South Africa*. Unpublished Research Report, Department of Construction Economics and Management, University of Cape Town.
- Scanlon, B. (1988). *Marketing of engineering services*. London: Thomas Telford.
- Sinclair, R. (1987) *Marketing in practice*. Johannesburg: Southern Book Publishers.
- Stuart, O.D.J. (1996) The construction industry, *Building and Construction* , April, 11, 1.
- Vance, W. (1996) *The state of the construction industry as at mid-1995: the professions and projects register of Southern Africa 1996*, Johannesburg: Avonwold Publishing.
- Wheatley, E.W. (1983) *Marketing professional services*, New Jersey: Prentice-Hall.