

REFLECTIONS AND OBSERVATIONS ON THE USE OF BROAD-BASED SURVEY METHODS ON THE SOUTH AFRICAN CONSTRUCTION SECTOR

Ludwig Martin¹ and David Root²

¹*Department of the Built Environment, Cape Peninsula University of Technology, Po Box 652, Cape Town, 8000, South Africa*

²*Department Construction Management and Economics, University of Cape Town, Private Bag, Rondebosch, 7700, South Africa*

The choice of appropriate methods of data collection is crucial for empirical research. This choice often appears to be influenced by the previous experiences and traditions of a researcher and his/her environment. Furthermore, critical and reflective reporting on the application of data collection methods in context specific literature is far and few between and often do not address particular issues interesting to a particular research field, such as construction, and its setting, such as South Africa where historically few broad based surveys of the South African construction industry have been attempted. In December 2006 a telephonic, computer assisted, survey was conducted on a sample of 528 contractors registered with South Africa's Construction Industry Development Board (CIDB). The data captured was quantitative but was supplemented with qualitative data. Although a good response rate was obtained, a number of context specific issues emerged ranging from problems with language to marriage proposals made to the female research staff. Of particular note were the differences within the sample reflecting cultural, linguistic, economic and regional variations that affected the attitudes of respondents to the CIDB, the research and the interview process itself. From this conclusions are drawn that may assist researchers in research practice in South Africa and other developing countries.

Keywords: emerging contractors, methodology, SMME, South Africa, survey.

INTRODUCTION

Textbooks on 'research' and 'research methods' exist in abundance. Many (e.g. McNeill and Chapman 2005) are generic explanations of research for students. While valuable in introducing the concepts of research *per se*; its terminology, differing approaches etc., they often fail to assist researchers in identifying and selecting appropriate approaches and tools when conducting research in a particular environment. Other books (e.g. Yin 1984, Frey and Mertens-Oishi 1995) introduce the reader to issues around particular tools of data collection and research designs in more detail, yet in attempting to reach as wide a readership as possible, till lack consideration of the specific nature of a given research environment. Understandably, not all disciplines, countries, cultures etc. can be considered when writing a book on research tools. Thus in practice researchers often rely on probed, accepted, and seemingly suitable research methods and tools for data collection and analysis. However in order to avoid possible errors stemming from repeating these seemingly

¹ martinl@cput.ac.za

suitable methods and from their subsequent conclusions, the various fields of research should try to test and adapt other possible research designs.

Much of the generic and construction specific (e.g. Holt and Faniran 2000) literature concerned with 'research' or 'research designs' originates from developed countries with substantial infrastructure such as reliable postal services, widespread internet access, and advanced telecommunications available to researchers. Some literature on research in developing or middle income countries such as South African context exists (e.g. Heaven (1977) in the field of demographic research) but publications addressing the challenges of research concerned with construction in developing countries appear to be rare to non-existent.

South Africa provides a unique environment for researchers, as the developmental disparities within the country are enormous and thus the challenges facing a researcher differ from those posed by researchers in the same field in other countries. The remoteness of the interview partners, the language problems related to the use of eleven official languages, differing cultural backgrounds of respondents and researcher, and the influence of the colonial rule with the subsequent Apartheid era are just some of the unique factors contributing to the difficulty in adapting research designs tried and tested in other contexts.

Such publications that do concern research in the construction context are often of a philosophical nature concerned with competing paradigms rather than practice. Publications discussing the use of different designs and experiences with these are rare. Yet in order to evaluate research methods, particularly when engaging with the object of research in empirical studies, the use of different approaches has to be analyzed and assessed. Reporting on the success of various research designs contributes to enhancing the overall approach to research. Readers can harvest the experience of others and can thus avoid major pitfalls and ensure future successes. It is in this spirit that the authors report on a specific research design; its success, problems encountered, and its suitability for studying small emerging contractors in South Africa.

SURVEYS WITHIN THE SOUTH AFRICAN CONSTRUCTION INDUSTRY

Many publications have had emerging or small contractors in South Africa as their focus (e.g. Cattell 1994, Emery, Cronje and Nyasulu 1995, Sebake and Sithole 2005). However, few authors base their research on broad-based surveys. The popular approach appears to be the use of case-studies. Whilst this allows a high degree of exploration and in-depth analysis, the validity of any extrapolation of findings to wider populations is highly dependent on the choice of the representative sample, or samples. This choice however, would be highly dependent on the actual population, for which a clear definition or picture, besides the Construction Industry Development Board (CIDB) contractor register, appears to be lacking. The use of case studies has specific problems in that the choice of cases tend to be highly restricted geographically and thus no overarching picture of the national industry is generated.

An assessment of recent South African publications sought to establish the kind, successes and numbers of surveys conducted amongst South African contractors over the last few years. Although constrained by the limited volume of research carried out in the SA built environment research community, The publications screened were the proceedings of four Construction Industry Development Board (CIDB) post graduate

conferences held between 2003-2006) and the Journal of Engineering, Design and Technology (JEDT) (Vol 1 (1) to Vol 3 (2)); a South African based journal with a high number of South African contributions:

Abstracts and keywords were screened for particular words, such as ‘contractor’, ‘survey’, ‘questionnaire’ etc. When found, the nature of the research was noted and the paper read to establish the methodology used and possible indications of survey samples and response rates. In some cases, where the abstract merely hinted at a survey approach, the ‘methodology’ chapter of the respective chapter was consulted, in order to establish if the publication would meet the criteria set and if it should be included in the assessment.

Publications were filtered to identify in the first instance, only papers reporting on surveys in South Africa. At the second level, surveys conducted using convenience samples, such as during workshops, were excluded as were those for which no numeric figures relating to sample size, response rates etc. were stated including interview series. Lastly, only those where the target population was contractors were used, excluding surveys amongst academics and consultants.

Table 1: Empirical studies in the South African construction research environment

	CIDB Post-graduate conferences				JEDT
	1 st conf. 2003	2 nd conf. 2004	3 rd conf. 2005	4 th conf. 2006	
Number of papers (total)	22	34	39	26	37
screening for research using survey & South African sample remaining	9	11	11	6	2
screening to exclude convenience samples, interview series; no response rates stated remaining	5	4	5	6	1
screening for target population (contractors) remaining	1	1	0	1	0

Out of the 121 papers in the CIDB proceedings only 37 were of an empirical nature and based in South Africa. Of these, approximately half (20 out of 37) used a random sample, reported on the actual sample size, response rates, etc.- allowing the reader to draw conclusions about their validity. Those based on series of face-to-face interviews all had a small sample size, which is typical for post graduate research with its time limitations. Most of these papers were unclear about the choice of interviewees and their representativeness to any wider population.

After excluding publications reporting on research concerning academics (a convenient but incestuous sample), consultants and end users of property, only three papers featured surveys concerned with ordinary contractors; that is contractors that make up the majority of the firms within the industry and who would be registered with the CIDB. These were {Motete, 2003 #354}, {Hinzelman, 2004 #355}, and {Germiniani, 2006 #353}. The Journal of Engineering, Design and Technology, followed a similar trend.

REPORTED RESEARCH DESIGNS: DATA COLLECTION

The three papers reporting on surveys conducted amongst South African contractors used differing approaches (Table 2). Sample sizes ranged from 50 (Motete, Mbachu and Nkado 2003) to 626 (Germiniani, Smallwood and Van Wyk 2006). Response rates covered a bandwidth of 18% to 37% (excluding a telephonic pre-survey with a response rate of 100%).

Table 2: Empirical studies - research design

Reference	(Motete, Mbachu and Nkado 2003)	(Hinzelman and Smallwood 2004)	(Germiniani, Smallwood and Van Wyk 2006)
Mode of survey	faxed	telephonic and postal	postal
Sample	MBA Gauteng	MBA Western Cape	MBASA & SAFCEC
Sample size	50	tel.: 29; postal: 203	626
Response rate	24 %	tel: 100 %; postal: 37 %	18 %

Motete (2003) used a ‘two-staged approach’ in which the questionnaires were designed in accordance with findings from a preceding interview series amongst a similar target group. These questionnaires were then ‘pre-tested’ and distributed to 50 members of the Master Builders Association (MBA) in Gauteng.

Hinzelman (2004) conducted a pre-assessment of the sample by calling members of the MBA in the Cape Peninsula ‘to determine the potential number of respondents’. Self-administered questionnaires were then sent to the sample, including ‘a cover letter explaining and motivating the survey’.

Germinianis’ (2006) approach was similar to Hinzelmans’ approach; self-administered questionnaires were sent to the sample, including a cover letter and a stamped return envelope. The option to fax the questionnaires back to the researcher was allowed. Germiniani also reports on the number of ‘return to sender’ incidents, which constituted 19 out of 626 (approximately 3 %).

Against this background of few broad based surveys concerning the South African construction industry and the lessons learnt from these, the next section shares some experiences from conducting a survey amongst emerging civil engineering contractors in South Africa.

BACKGROUND AND PURPOSE OF TELEPHONIC SURVEY

The survey is a component in a wider doctoral study investigating the transfer mechanisms of knowledge and skills from established to emerging contractors. The purpose of the survey was to establish a better picture of the emerging small and micro contractors that are prevalent in the industry (in numerical terms) and from where the bulk of new capacity is likely to arise as the industry attempts to double its capacity (CIDB 2006). A lack of knowledge about these ‘emerging contractors’ appears to prevail as previous work focuses on individual cases or small regional enclaves (e.g. Haupt 2005). Anecdotal evidence suggests that differences between different regions in South Africa in the make-up of emerging contractors are present, yet a broader better defined picture of ‘emerging contractors’ is missing hence the justification for conducting a nation -wide survey.

By focusing on the state of emerging contractors and patterns of co-operations within the construction industry, the survey is intended to inform the researchers of the complex environment within the transfer mechanism of knowledge and skills within co-operations of emerging and established contractors can be investigated.

RESEARCH DESIGN

Population and sample of survey

The population constituted of emerging civil engineering contractors registered in the CIDB designations 1 to 4, (capacity to undertake contracts of up to R3m

(approximately £210K). At the time of the preparations for the survey 2638 contractors were registered in these designations.

To ensure a representative survey a sample size of 20 % was selected equalling 528 contractors across the four designations. The sample was drawn from across the country with a proportional distribution over the provinces and designations. Selection of cases within provinces and designations was random (by throwing dice). The contact details of the samples were accessed via the CIDB contractor register and fed into a MS Access database.

Designing the questionnaire

The questionnaire was developed in English in three phases:

- Various questions, which required clarification or attention, were formulated and compiled in the questionnaire based on a literature review. It was evident that not all questions would be applicable to all interviewees and sub-sections were introduced that were only entered if the previous answer to a question required additional data. Together with an introduction and general questions regarding the interviewee, the complete questionnaire was then tested in face-to-face interviews with two persons, drawn from a convenience sample (academic colleague and friendly contractor) to test the questions and the flow of the interview process from which revisions were made..
- Software was developed to allow the interviewer to read out the questions displayed on a computer screen, with space provided for the possible answers / data (quantitative and qualitative). The interface would record the answers in a MS Access database for analysis. The interface and accuracy of the data capture was tested in a second trial of ten CIDB registered civil engineering contractors from across South Africa. During the interviews hand written notes were made on where problems with questions, understanding of questions, and general flow were observed.
- Subsequent to this test trial the flow of the questionnaire was improved upon, some questions were re-phrased and in some cases different options for the answers were adopted. The computer interface and data capturing was once again tested.

Content of questionnaire

The final questionnaire used in the interviews was divided into four sections encompassing an introduction and consent, personal details of the interviewee, status of the company and knowledge within the company and experiences of co-operations with other companies. The introduction and consent section ensured that the correct company was contacted, that the interviewee would understand the nature of the survey and that clear informed consent to participate was obtained. Anonymous use of the data collected was guaranteed in order to facilitate an open interview.

The interviewee's personal details are central to the data captured, since gender, ethnic group, personal position within company, personal experience in construction and highest achieved education are aspects that the literature suggests significantly influence subsequent answers. It also provides a first insight into the nature of small, very small and micro businesses in construction as it is expected that the interviewee will be the 'core' personnel of such enterprises.

The section regarding the status of the company and state of knowledge held within the company was concerned with a self-assessment of the interviewee in various fields relating to construction. The mode of questions was based on 5-point Likert scales.

The section regarding co-operations with other companies was based on pre-determined as well as open ended options. This section was mainly concerned with developing a better picture of how contractors interacted with one another within the industry. The pre-determined questions typically address the frequencies of interactions while the open-ended questions allow the interviewee to comment on experiences with certain contractual constellations (sub-contracting, plant-hire etc.).

Data collection and tool

The method employed was a '*computer assisted telephonic interview*' (Jolliffe 1986). The advantages of telephonic interviews are manifold; a fast execution of the survey, depending only on the availability of the interviewer, is possible since waiting times due to mail delays and response times are eliminated. Higher response rates are also generally observed (Durrheim, Speare and Petzer 2002). Furthermore the survey costs are competitive compared to mailed surveys. Due to its 'real-time' characteristic, telephonic interviews also allow precise monitoring of the survey progress. One disadvantage is the sampling bias of telephonic surveys, as parts of the populations with no access to telephone are often not approached. However this argument is being rapidly made redundant by the widespread adoption of mobile phones across both developed and developing countries.

The computer interface guides the interviewers through the structured interview allowing the interviewer to capture the number of attempts and times of previous attempts in calling the interviewees and to record requests by the interviewees for them to be called back at another time. Three attempts to reach each interviewee were made spread over different days and at different times. If all three attempts failed that interviewee was marked as not available. In 10% of the cases, a letter forewarning the interviewee of the telephonic interview was sent. This was a specific attempt to assess the responsiveness of the interviewees to such an intervention. The letter included a brief description of the purpose of the survey and stated a date at which the interviewee would be contacted.

Interviewers

Two female interviewers performed the survey and were briefed on the overall research project, to ensure they appreciated the importance of the survey and to sensitize them to the questions asked. The interviewers were given reading material on the context of the survey as well as on telephonic surveys in general. This was followed by training sessions covering administrative matters, technology used and a discussion on the reading material. In addition to the questionnaire, the interviewers were asked to record their experiences of each interview and report on their general experience with administering the survey.

The interviews were conducted in a 3 week period between November and December 2006. Following these interviews the interviewers were 'de-briefed' during an unstructured afternoon session when two interviewers were asked to share and discuss their experiences of conducting the survey?

TRIAL, SURVEY AND EXPERIENCES

Testing the questionnaire

During the pilot study phase of developing the questionnaire, the 10 contractors showed very different responses to the request to participate in the survey. Some contractors were willing to disclose all information requested, others were reluctant or unwilling to participate in any way. The first problems were encountered with language. This resulted in changes to the final questionnaire design to avoid ambiguous questions, which were misinterpreted. For example, during the introduction the interviewee was asked to give consent to participate in a 'telephonic interview'. Some contractors interpreted this as a job interview requiring changes to the wording used. Some contractors did not follow the flow of the interview and pre-empted subsequent questions. This resulted in a change to the permissible data, from pre-determined quantitative data scales to a more open ended, qualitative data.

Availability of interviewees

For only two out of the 528 contractors had incorrect contact details on the CIDB contractor register. 211 contractors were reached on the first attempt. A further 126 contractors were reached after the second attempt. A third attempt resulted in the successful contact of a further 59 interviewees. In four cases, all on the third attempt, the interviewers were asked to call back later again. However when later re-contacted for a fourth time, only one of the four was prepared to continue with the survey. Thus a total of 397 contractors (75 %) were successfully contacted.

Of these 397 contractors approximately three-quarters were willing to participate in the survey. This resulted in an overall response rate of 53 %. A difference across the provinces on the availability of the contractors on the phone and the correctness of the recorded phone numbers on the CIDB register was observed with the Eastern Cape sample particularly troublesome to contact. This may reflect this provinces' rural character (Van Aardt 2004), and the business culture of contractors in this province.

Timing of phone call

It became evident that phone calls made in the morning gained greater success in participants' willingness to be interviewed. Friday afternoons were not preferred by contractors, not because they were busy shutting down sites for the weekend or else - as could be expected - but because for them the weekend had already started. This suggests that as with email surveys (Faight, Whitten and Green Jr 2004) the timing of the phone call matters with regards to availability and responsiveness of the sample.

Language

The main obstacle proved to be language. Only a minority of the contractors were fluent in English, although the majority were able to answer in English. Some insisted on the use of their mother-tongue. This was not possible, since the questionnaire was worded in English and the interviewees were often not fluent in the requested language. It was also observed that the requested language would not necessarily relate to the regionally predominant language, e.g. Zulu speaker in Mpumalanga. One interviewer noted that *'the survey goes very well (i.e. quick and easy) if language is not an issue'*.

Use of the announcement letter

Out of 53 contractors to whom announcement letters were sent, 42 contractors acknowledge the receipt of the letter. Three contractors stated they have not received such letter, while the remainder was either not sure if they have received the letter or were not available. Contractors who received the announcement letters were generally more receptive to the survey. This was less an issue of the willingness to participate (80% of the contractors who were sent letters to vs. approx. 75% over the overall survey), than of the observed attitude of the interviewee to the idea of a survey and their eagerness to answer the questions.

Attitudes towards the survey

The general attitude of contractors with regards to this telephonic survey can be described as sceptical. The introductory text included a reference to the CIDB register as the source of the contact details. This acted as an encouragement for many of them to complain about the CIDB register and its underlying policy. However once the contractor understood the nature of the survey they appeared to be more willing to participate. A question often raised was the objective of the survey and who would eventually benefit from its findings. Many contractors felt, that this would just be another survey and their situation as emerging contractors would not improve. Some contractors sought instant gain for participating in the survey, with a few asking for re-imburement for their time spent on the phone. Other contractors were more open to the survey and willing to answer the questions. Questions with regards to their annual turnover and average contract size were asked. Here some contractors refused while others were keen to share this information. It must also be noted that many contractors could not answer questions relating to their financial standing, as *'someone else is doing the books'*.

A tangible difference in the conduct of the interviews was observed depending on the region where interviewee lived. In the debriefing session with the interviewers it became clear that contractors from the Gauteng province appeared to be more professional in their responses. Contractors from other provinces, such as the Eastern Cape, appeared to be far more political and defensive which might reflect differences in business culture and practice. This also raises the question of external validity of the case-study approach often used in South African construction research.

Professionalism of the interviewees

Interviewees were asked about their personal background, training received and possible qualifications. Here a wide variety in personal backgrounds was explored ranging from the unemployed, insurance brokers, bottle store owners, artisans, teachers, security guards, students through to graduates

The contractors' backgrounds were also reflected in the manner they followed during the interview. One of the interviewers stated that the *'educated guys are more professional and accommodating – the interviews are much quicker'*. The same interviewer also assured on the other side that *'uneducated guys get a bit more defensive and difficult to talk to'*.

One interviewer, a Xhosa speaking building professional, was on numerous occasions asked by contractors about her personal details. Some contractors were openly trying to flirt with the female interviewer. In one case a male interviewee / contractor from the Free State province offered a plane ticket for the interviewer in order to come and visit him for a weekend! Another went so far as to propose marriage to the

interviewer! This is somehow indicative of the manner contractors are often perceived by the public and also shows a disrespectful and offensive behaviour by such contractors – certainly not professional; yet possibly reflecting broader cultural issues within the South African society (Terreblanche 2006).

Usage of computers during the survey

Using the computer interface to capture the answers of the contractors was highly beneficial. The computer system and software were stable and caused no problems. The database could be accessed anytime and progress monitored by the senior researcher. The design of the interface further allowed the interviewers to record data which could not be readily categorized. This data was mostly qualitative in nature, including opinions and additional comments made by contractors.

CONCLUSION

The tradition of conducting research in the South African construction setting appears rely on case-study based approaches or small samples in opportunistic situations. Broad-based surveys on a frequently researched population, namely emerging contractors, are, in contrast, rare. One of the reasons for this could be the lack of experience in conducting such broad-based surveys with its high number in a sample size. Furthermore difficulties in administration could be reasons for choosing different research designs. Postal and faxed surveys often only yield a low response rate, which make it difficult to justify the return on the effort involved particularly in an academic context where resources are limited. In the few cases of broad-based surveys in South Africa, mailed and faxed questionnaires were opted for. In these the focus of the study were established contractors. In contrast emerging contractors whilst they make up the majority of firms have tended to be researched using case study methodologies,.

Telephonic surveys are fast to administer and provide the opportunity for real-time control. Surveys amongst the construction industry with its distinct feature of changing sites are ideal situations in which telephonic surveys might yield a high response rates, provided telephonic contact details, particularly cell phone numbers, are available. The response rate of 53% observed on this survey is higher than other broad-based survey response rates reviewed. Furthermore, the time of the day and day during the week appeared to be a factor determining the availability of contractors with contractors being more willing to participate in the mornings. As expected, Fridays proved to be non-fruitful survey days, as many contractors were not available – although possibly not due to demands stemming from the construction sites! Thus close attention should be given to the timing of such surveys, which will impact on the response rate and the quality of interview. Furthermore announcement letters posted in advance of the telephone call showed to increase the willingness to participate in the survey and its '*efficiency*' although not too dramatically in terms of response rate.

Aside from the major problem of language, the attitudes of contractors towards surveys differed greatly. This seemed to be partly due to differing educational backgrounds of the interviewees. The professionalism of the interviewees not only affected the interviews progress, such as the inappropriate proposals to the female interviewers, but also the quality of data captured. Regional differences were noted. These may reflect differing cultural backgrounds and settings of the interviewees. The question of external validity of previous surveys and studies, often based in one particular region of South Africa, can thus be raised and should be considered when drawing generalizations from small samples.

On the technical side, the use of the tailor-made software, guiding the interviewers through the sub-sectioned questionnaire, proved to be very successful being both stable and efficient. It provided structure whilst also allowing a degree of freedom to record additional comments and qualitative data. This made the survey more open, yet easy to administer and contributed to the successful execution of the survey.

REFERENCES

- Cattell, K S (1994) Small black builders in South Africa, Unpublished MPhil Thesis, Department of Construction Economics and Management, University of Cape Town.
- CIDB (2006) Infocus-newsletter of the construction industry development board, Pretoria.
- Durrheim, D N, Speare, R and Petzer, M (2002) Short communication: Rabies post-exposure management in South Africa: A telephonic survey used as a rapid tool for operational research. *Tropical Medicine and International Health*, 7(5), 459-61.
- Emery, S J, Cronje, P G and Nyasulu, G (1995) Development of emerging contractors through franchizing. In: Sarf (Ed.), Joint IRF/SARF conference, 1995, Midrand.
- Faught, K S, Whitten, D and Green Jr, K W (2004) Doing survey research on the internet: Yes, timing does matter. *Journal of Computer Information Systems*, 44(3), 26-34.
- Fellows, R and Liu, A (2003) *Research methods for construction*. 2 ed. Oxford: Blackwell.
- Frey, J H and Mertens-Oishi, S (1995) *How to conduct interviews by telephone and in person*. 1 ed. Vol. 4, The survey kit, Thousand Oaks: Sage Publications.
- Germiniani, F L, Smallwood, J J and van Wyk, J J (2006) Contractors' perceptions of the effectiveness of the department of labour inspectorate relative to South African construction health and safety (h&s). In: Hugo, F (Ed.), 4th Post-Graduate Conference on Construction Industry Development 2006, Stellenbosch.
- Haupt, T C (2005) Report on the profile of construction skills in the Western Cape: Working paper 0105 0105, Cape Town: Cape Peninsula University of Technology (SABERC).
- Heaven, P C L (1977) *Ethnic attitude research in South Africa: A discussion of techniques and pertinent research*. Pretoria: Institute for Sociological, Demographic and Criminological Research, Human Sciences Research Council.
- Hinzelman, J and Smallwood, J J (2004) Declining productivity and lack of motivation among site managers: Medium sized contractors' perceptions. In: Root, D, Massyn, M and Shakantu, W (Eds.), 2nd CIDB postgraduate conference, Cape Town.
- Jolliffe, F R (1986) *Survey design and analysis*. 1 ed. West Sussex: Ellis Horwood Limited.
- McNeill, P and Chapman, S (2005) *Research methods*. 3 ed. Oxon: Routledge.
- Motete, L, Mbachu, J and Nkado, R N (2003) Investigations into material wastages on building sites. In: Smallwood, J J and Haupt, T C (Eds.), CIDB 1st Postgraduate conference 2003, Port Elizabeth, 288-95.
- Sebake, N and Sithole, B (2005) An investigation of performance of emerging contractors in the thuba makote pilot programme affecting the timeous completion of works. In: Talukhaba, A A, Akindele, O A and Appiah-Baiden, J (Eds.), 3rd Postgraduate Conference Construction Industry Development, Johannesburg. Construction Industry Development Board, 79-90.
- Terreblanche, C (2006) Women the losers in zuma rape case. In: *Sunday Argus*, Cape Town.
- van Aardt, C (2004) *Republic of South Africa: Demographic and statistical overview 1994-2004*, Pretoria: Department of Social Development.
- Yin, R K (1984) *Case study research: Design and methods*. London: Sage Publications Ltd.