DBSA case study guidelines, framework and lessons learnt

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# Contents

1. **Purpose of this paper** .................................................................................................................. 4
2. **Background and problem statement** .......................................................................................... 4
3. **Case studies: Purpose and types** ............................................................................................... 4
   3.1 **Purpose of case studies** ......................................................................................................... 4
   3.2 **Types of case studies** ............................................................................................................ 5
   3.3 **Case studies as a research tool** ............................................................................................ 5
4. **Case studies: A scan of approaches** ........................................................................................... 7
   4.1 **The World Bank methodology** ............................................................................................ 7
   4.2 **The GAIA framework** ........................................................................................................... 8
   4.3 **The Harvard Teaching Method** ............................................................................................ 8
5. **The framework for conducting case studies** ............................................................................. 9
   5.1 **Proposed checklist of case study criteria** ............................................................................. 9
   5.2 **Generic issues** ...................................................................................................................... 11
   5.3 **DBSA case study framework** ............................................................................................... 12
   5.4 **The case study process and routing** ..................................................................................... 15
6. **References** ................................................................................................................................... 17
1. Purpose of this paper

The aim of this paper is to develop an enhanced framework for case studies for the Development Bank of Southern Africa (DBSA). The literature study was supplemented by facilitated interaction between the DBSA assignment team and project teams during pilot work sessions featuring case studies in two priority sectors.

2. Background and problem statement

The DBSA has become an important catalyst for creating, sharing and applying cutting-edge knowledge necessary for social and economic development. A key component to retaining and improving the DBSA's position in this regard is learning from its own experiences, as well as from the experiences of others. Case studies are important enabling tools to address the main social, financial and technological challenges of the new knowledge economy. A review of case study frameworks was done to inform the development of the most effective framework for DBSA purposes.

This paper is intended to give guidance on what a case study is, what methodology to use, and how the case study should be written up for dissemination.

3. Case studies: Purpose and types

3.1 Purpose of case studies

The purpose of a case study is particularisation and not generalisation. It involves taking a particular case, getting to know it well, emphasising its uniqueness, and placing an observer in the field to observe the workings of the case. A case study objectively records what happened, examines its meanings, and redirects observation to refine or substantiate these meanings. Moreover, it is a learning tool, providing lessons learnt that can be adapted for own situations or context. In that sense, it is replicable, and informs and enhances best practice to ensure sustainability and improve the benefits of future programmes and projects (Matomela, 2002:34–5).

In its published evaluations (Morra & Friedlander, 1999), the World Bank used case studies extensively, documenting in-depth considerations of the results of projects and illustrating learning points. Case studies have the advantage of being convincing and capturing the reader’s attention.

Morra and Friedlander (1999) define a case study as a method of learning about a complex instance, based on a comprehensive understanding of that instance obtained through an extensive description and analysis of the situation taken as a whole and in its context. Case studies are used to determine why or how a policy, programme or project worked or did not work.
3.2 Types of case studies

There are six main types of case studies, as outlined below:

- **Programme implementation**: This type of case study investigates operations, often at several sites and often normatively. It assesses whether implementation complied with the original intent. However, the time required for collecting longitudinal data and the breadth of the study, using many sites and much data, complicate validation and may lead to less thorough analysis.

- **Programme effects**: This type of case study examines causality and usually involves multi-site and multi-method assessments. It determines the impact and success or failure of a programme or a project.

- **Illustrative**: This type of case study is descriptive in character and is intended to add realism and in-depth examples to other information about a programme, project or policy. It describes a domain, and what is happening and why, to show what a situation is like. It is used when too little is known about a programme, and serves to make the unfamiliar familiar. It highlights important variations among a number of cases, which must be kept small enough to sustain the reader’s interest. The main pitfall is the level of depth required in relation to the time available to the researcher. The selection of instances to represent the situation or programme adequately is important, as a single site may not be adequate.

- **Exploratory**: This is also a descriptive case study, but is aimed at generating hypotheses for later investigation, rather than being illustrative. Such case studies are used when considerable uncertainty exists about programme operations, goals and results before a large-scale investigation is undertaken. The pitfalls are reaching conclusions prematurely, extending the exploratory phase, incorporating too little diversity, and failing to ensure adequate representation.

- **Critical instance**: This examines a single instance of unique interest or serves as a critical test of an assertion about a programme, project or strategy. It is useful for answering cause-and-effect questions about issues of concern.

- **Combined methodology**: Cumulative case studies bring together findings from many case studies at different sites and times to answer an evaluation question, whether descriptive, normative or cause-and-effect. It ensures comparability and quality. Pitfalls are publication biases (Berger, 1983) and inadequate verification of the original data and analysis (Yin, 2003).

3.3 Case studies as a research tool

The case study method is one of several types of evaluation tools (Kusek & Rist, 2004:121), the others being performance logic chain assessment, pre-implementation assessment, process implementation assessment, rapid appraisal and meta-evaluation.
Also, the case study method may be seen as one method of research design chosen from a suite of methods available to the researcher. Cooper and Schindler (2001:135) describe research design as the strategy for a study and the plan by which the strategy is to be carried out. It specifies the methods and procedures for the collection, measurement and analysis of data.

There is no simple classification of research designs that covers the variations found in practice (Cooper & Schindler, 2001:135). Some major descriptors of designs are:

- **Exploratory versus formalised**: This refers to the degree to which the research question has been crystallised and the extent to which the hypothesis has been formulated. Research normally starts with an exploration, followed by a detailed formal study.

- **Observational or monitoring versus interrogation and communication**: The method of data collection can range from just observing and monitoring the situation to using more active interrogation methods, such as questionnaires and interviews.

- **Experimental versus ex post facto**: With experimental designs, the researcher can change and test the variables. S/he has more power to produce effects than with an ex post facto historical and unchangeable situation.

- **Descriptive versus causal**: The study could look either at only one variable or at the causal relationships between several variables.

- **Cross-sectional versus longitudinal**: The time element is relevant here. A cross-sectional study looks across various aspects, usually during a single period, while time series research is longitudinal.

- **Case studies versus statistical studies**: A case study will examine one topic in depth, while a statistical study will explore several topics, thereby allowing for broader research.

- **Field study versus laboratory study versus simulation study**: These descriptors refer to the research environment.

- **Actual routine versus modified routine**: This refers to the surprise factor related to the research, and whether the respondents are prepared for or warned about the research.

Case studies, therefore, fit under the topical scope – breadth and depth – of the study. Statistical studies differ from case studies, as they are designed for breadth more than depth. They attempt to capture the characteristics of a population by making inferences from the characteristics of a sample. Case studies place more emphasis on a full contextual analysis of fewer events or conditions and their interrelations. Although hypotheses are often used, the use of qualitative data makes support for or rejection of the hypothesis more difficult. An emphasis on detail provides valuable insights for problem solving,
evaluation and strategy. This detail is secured from multiple sources of information, allowing evidence to be verified. This avoids the problem of missing data.

Case studies have often been described as scientifically worthless, as they do not meet minimal design requirements for comparison, but, in fact, they have a significant scientific role. Cooper and Schindler (2001:138) claim that a single well-designed case study can provide a major challenge to a theory and simultaneously be a source of new hypotheses and constructs.

The aim of this paper is to create a well-designed case study framework for the DBSA, which will capture the common components of case studies, namely the activities, decisions, relationships and outcomes.

4. Case studies: A scan of approaches

4.1 The World Bank methodology

The World Bank uses five basic steps (Kennedy & Scott, 1985) for writing case studies:

- Develop the situation or problem.
- Research the case.
- Write the case.
- Develop questions and activities in support of the case.
- Develop thorough instructions for the case study.

The World Bank Agricultural Innovation Guideline emphasises the need to capture the following four main elements:

- Key actors and their roles;
- Attitudes and practices;
- Effects and characteristics of patterns of interaction; and
- Enabling environment for innovation.

The World Bank checklist was designed to address a central insight of the innovation systems framework: partnerships and linkages must be analysed in their historical and contemporary context, which defines the opportunities and necessity for innovation, especially where rapid change is occurring. The case study should include the present as well as contextual factors, such as the socio-political environment and the natural resource base. This will reveal divergences between innovation and practice on the one hand and changing demands over time on the other (World Bank, 2007:xvi).

In addition, Morra and Friedlander (1999) explain the following options of techniques for analysis:
● Extensive or ‘thick’ analysis: Analysis of multiple types of data sources, such as interviews with all relevant persons, observations over time, participant observation, documents, archives and physical information;

● Analysis via triangulation of data: Analysis through pattern matching, explanation building and thematic review; and

● Comparison of evidence for consistency: Analysis through techniques such as a matrix of categories, graphic data displays, the tabulation of event frequencies, and chronological or time series ordering.

4.2 The GAIA framework

The GAIA methodology is aimed at providing a comprehensive understanding of environmental issues at regional and local levels, to provide context to policy development and the operational programmes of government, non-governmental organisations, the private sector, universities and other educational establishments.

● GAIA advises that case studies should be selected based on the following:

   ● Relevance and didactic value;
   ● Availability of information; and
   ● Lessons learnt in the sense of leading to future spin-off projects.

The GAIA approach (GAIA, undated) suggests the following framework for carrying out case studies:

● Title of case study

● Location of project

Issues (related to Agenda 21 and sustainability) of policy, context, objectives and values, informed by indicators that include units, ranges, targets and standards

● Applicable model or methodology of analysis

● Topography, climate and socio-economic data

● Conclusions and recommendations.

4.3 The Harvard Teaching Method

The Harvard Business School first introduced case studies to management education in the 1920s. It remains by far the largest producer of case studies, undertaking 600 to 700 every year, about 10 times as many as its rivals. According to the Business Day of 12 May 2004, the case study method of teaching has become the nucleus of classroom instruction at Wits Business School. The School was introduced to case study practice through its close association with Harvard. Many of Harvard’s case studies were and are still used on local courses.
In the Business Day article, Ms Sprague, a research associate and part-time lecturer at the Wits Business School, is quoted as saying that ‘Students complained that too many case studies were American and not applicable to [South African] conditions’ (Sprague, 2004). She uses the Harvard case methodology and works with colleagues at the Wits Business School case centre to make the School the leading producer of case studies in Africa. Some time earlier, Sprague was a research associate at Harvard, where she wrote the only case study on Africa taught in the MBA programme. This project stimulated her interest in developing case studies in Africa. She was seconded from Harvard to strengthen the development of a case study culture and methodology at the Wits Business School.

Establishing a resource of case studies is an expensive undertaking. It requires much time and effort to prepare each new case, make it fit in an existing course, and demonstrate the instructor’s teaching objectives. Sprague notes that business conditions in South Africa differ from those in Europe and the United States, and cases have to be tailored to the domestic market to be meaningful. ‘Students’ interest is engaged by studying their own country’s business problems, which they recognise as fascinating and compelling. The urge to understand our own environment and make sense of it is a universal human phenomenon’, she says. There are also opportunities to sell South African case studies internationally. ‘Because [South Africa’s] business issues are so different, and often complex, there is strong international interest in them. Africa does not always feature in case studies among other business schools, but they are missing an invaluable lesson.’

Matomela (2002:34) states that case studies have historically been used as interactive teaching methods, mostly in the academic world. They were meant to bring real-life examples into the classroom, but lacked the contextual understanding of service delivery to the public. Transformation and development over the years have revealed some experiences and lessons that, once studied and captured, could inform and enhance best practice and magnify spin-offs in future programmes. Thus, a learning culture is instilled that prevents reinventing the wheel.

In the DBSA, the first main challenge is to identify cases worth capturing, with clear lessons to inform best practice. The second challenge is to capture them in a way that encourages learning. Key to the writing up is to start with a good background that provides an understanding of the circumstances and context. Issues raised here are relevant to the preparation and use of DBSA and other case studies by the Vulindlela Academy.

5. The framework for conducting case studies

5.1 Proposed checklist of case study criteria

Building on the foregoing review of the literature, the commonly considered suite of criteria, and issues relating more to the project and programme dimensions at the DBSA, the following case study checklist is proposed:
Are the evaluation questions stated clearly and explicitly? The questions investigated as well as the underlying issues should be explicitly presented.

Is the case study application clearly described? The case study should describe the application that was selected and explain why this application is appropriate for the kind of evaluation questions that needed to be answered.

Was the time span of the study long enough to address the core issues fairly? Is the study sufficient to provide a comprehensive understanding of the event as a whole in accordance with the definition of case studies?

Is the basis for selecting cases clearly specified? A good case study presents the rationale for its selection.

Are the data collection methods adequately described? If an illustrative or exploratory case study is being undertaken and data collection is unstructured, this should be indicated. When multi-site approaches are being used, the actual protocol for data collection should be available.

If more than one investigator collected data, are the quality control procedures described? This would potentially include the basis for selecting data collectors, the training provided, and the like.

How will depth of analysis be achieved? Have negative perceptions been addressed, for example that a case study is a tedious and difficult exercise? Confirm the objectives of the study, outline the demarcation, and describe the methodology clearly to achieve depth of analysis. Set milestones with clear goals and responsibilities, based on areas of expertise.

Has appropriate technical and professional expertise been identified, aligned with the nature and scope of the case study? Appropriate professional expertise is a useful quality assurance resource for case study reviewers.

Are the information sources fully described? A good case study presents the sources of evidence in detail. Numbers and positions of people interviewed and the extent and nature of records reviewed and/or situations observed should be evident. The reader must be able to assess the appropriateness and completeness of information sources and determine the credibility of the conclusions from the information in the case study report.

Are database formations and data analysis techniques clear? Readers need to know how the data was organised and analysed. Details should be provided on the steps taken to reduce and code the data. Analytical procedures, such as triangulation, should be described explicitly.

Are arguments presented for and against various resolutions of the evaluation questions? If other studies relevant to the issues are available, their results should be presented and reconciled with the case study findings. A good case study discusses
how the study findings and conclusions converge with or diverge from other related work. It also specifies any differences in the interpretation of the evidence among members of the investigative team or reviewers of the draft report.

- Are the strengths and weaknesses of the case study identified? A good case study discusses the strengths and limitations of the evidence and considers these in formulating conclusions. Generalisations can only be made from a diverse range of carefully selected the case study on a specific topic.

- Copyright for organisations and authors should be arranged through the appropriate legal services. To avoid legal proceedings, case study authors and reviewers must clear the submission with all stakeholders.

### 5.2 Generic issues

Each case will be different. Cases will have different evaluation questions, data available, time constraints and limitations on resources. As the case study team or originator, the author(s) will have to explore design options to achieve the most robust results. Important points to keep in mind include the following:

- There is no perfect design.
- Each design has strengths and weaknesses.
- There are always trade-offs in terms of time, cost and practicality.
- Acknowledge such limitations to the design.
- Provide some assessment of their likely impact on the results and conclusions.

Stake (1995:123) advises that the following generic issues be considered:

**Entry vignette**

This is the introduction, which should start developing an engaging experience with the reader to give a sense of place and time.

**Issue identification, purpose and method of study**

How did the study come about, who is the author, and what issues does the author think will help to make the case easy to understand?

**Extensive narrative description to define the case and its context**

Present a body of relatively incontestable data, with some interpretation, but provide a description similar to what readers would have given had they been there. If there is controversial data, present it as the views of a contender or a witness.

**Development of issues**

In the middle, carefully develop a few key issues to assist in making the complexities easy to understand. Draw on other research or an understanding of other cases.
Descriptive detail, documents, quotations, triangulating data

Some of the issues need to be probed further. This is the place to confirm experiential data. Describe what was done to confirm observations (triangulations) but also to disconfirm them (playing devil’s advocate).

Assertions

Provide information that will persuade readers to reconsider their knowledge of the case or even change generalisations about similar cases. Having previously presented a body of relatively uninterpreted observations, summarise what should be understood about the case and how generalisations about the case were changed conceptually or in level of confidence.

Closing vignette

Close on an experiential note, reminding the reader that the report is just one person’s or a group’s encounter with a complex case.

5.3 DBSA case study framework

The particular form of the case study write-up will depend on the audience and its needs, but should follow this outline:

Executive summary

An executive summary provides a quick overview of the study, the issues raised, the methods used and a brief summary of findings and recommendations. It should not be more than three pages in length, and its length should be proportionate to the length of the case study. This is similar to journal articles and papers, where the abstract helps with cataloguing and assists those looking for reference work in determining whether the particular paper or article contains the information sought. Listing three to five key words will be helpful.

i. Introduction

The background and introduction should create interest and give the reader an understanding of the project context and the situation that led to the initiation of the case study (Matomela, 2002). It should provide information about the management dilemma, a development dilemma and the research agenda or central theme of the case study, briefly sketching the background to the industry, company or value proposition (Beswick, 2007).

ii. Purpose of the case study

The purpose relates to the problem or dilemma, building on the introduction and background, explaining what the author or initiator of the case study is intent on achieving. It highlights the specific problem or challenges that justified the initiation of the case study (Matomela, 2002). A clear issue or management research question should be stated.
iii. Case study methodology

Central to a successful case study is the description and explanation of the intervention or method followed for data collection, analysis and synthesis to address the case problem and possibly find a way of achieving the goal of the case study. This refers to the research methodology, which is discussed in more detail in the reference texts listed at the end of this paper.

A case study can use qualitative and/or quantitative methods to collect data. It can consist of a single case (a once-off, before and after, or single time series design) or of multiple cases (comparative designs). It can focus on an in-depth understanding of individuals, organisations, communities, programmes, cities and/or nations (IPDET, 2007:284).

The cases might be selected randomly, judgementally or purposively, based on specific criteria such as best case, typical case, worst case or a mix. The same data collection strategies used in the single case can be used in multiple case studies as well (IPDET, 2007:285).

Section 3.2 of this paper is helpful in determining the type of case study and the methodology to align to the purpose and requirements of the case study.

iv. Project description

This section deals with what was planned. DBSA project teams and management use the following approach when appraising projects, programmes or assignments, typically captured in a logical framework:

- **Objectives**
  This section deals with the objectives of the project in relation to the subject of the case study.

- **Design/concept**
  This part refers to best practice approaches that was envisaged in the planning phase of the intervention, who the stakeholders were and how they were involved, what the nature and uniqueness of their involvement were, and what resources were deemed to be required.

- **Implementation**
  This section deals with the execution of the concept on the ground and what actually took place to implement the project and realise its objectives.

- **Outputs**
  What were the anticipated results or products envisaged in project reports in relation to the logical framework? Use simple language and refer to appendices to keep the case study to the point.
v. Case study elements and dimensions

The case study elements and dimensions range from design inputs and activities to results and effectiveness, as appropriate for the purpose of the case study (Busari, 2007). This section deals with how the project, programme or assignment was completed – was it implemented as planned, were there deviations and, if so, why?

Describe the importance and context of these in terms of the case study objective(s). Evaluate the design in terms of its strengths and weaknesses. Also, consider how close implementation was to the planning and concept, what deviations were required, and why. What was sufficiently unique in the implementation to warrant a case study? Ask the ‘why, what, when and which questions’ to develop the evaluation.

In terms of project benefits, were the outputs realised? Were services effective? Another important dimension relates to how close achieved outputs were to what was intended. What were the differences? Summarise the findings in relation to the purpose of the case study.

vi. Lessons learnt

The lessons learnt should emerge from the foregoing analysis section on case study elements and dimensions, and should centre on building the capacity of the DBSA to serve its clients well. Lessons learnt are aimed at capturing DBSA experience and presenting it in an enabling environment that will encourage learning and reinforce the Bank’s strengths as it learns from past mistakes or past successes (DBSA, 2005). Lessons learnt are captured according to the DBSA appraisal modules, issues and themes identified, and in terms of short, medium and long-term impact.

Lessons learnt is a knowledge-sharing approach used by many organisations to capture lessons and proven practices from a project or event. Although the lessons can be applied to improve the current project, they can also be used enterprise-wide to improve processes and policies, reduce risks and minimise costs. Lessons learnt activities are sometimes referred to as after-action reviews, ‘hot washes’, post-mortems, project snapshots or event debriefs (Cole, 2009).

Questions commonly asked during sessions designed to capture lessons and best practices include:

- What was supposed to happen?
- What actually happened?
- Why was there a difference or variation?
- Who else needs to know this information?

An effective ‘lessons learnt’ programme can help an organisation achieve the following:

- Avoid redundancy and reinvention by reusing existing designs and building on experience.
 Improve the quality of products and services while reducing errors, rework and cycle times.

- Standardise best practices in order to improve efficiency and reduce operating costs.

- Enhance learning proficiency and professional development, reduce time to competency, and integrate training and learning initiatives.

- Build a knowledge-sharing culture.

In capturing lessons learnt, the following principles (Cole, 2009) should be considered:

- **Context:** If the lesson was captured or documented without the proper context (e.g. a description of the project, equipment specifications, the political environment and scientific data), then the end-user who is looking for lessons to inform his/her project or task cannot apply the lesson properly.

- **Storage and retrieval:** Organisations often have lessons learnt databases or repositories where lessons go to die because they were not submitted properly and, therefore, could not be retrieved for application elsewhere in the organisation.

- **Understanding the customer for the lesson:** Is the customer the current team that is in the midst of the project or is it a future project manager or team working on a similar problem or task? Or both? A clear understanding of the customer for the lesson must drive the objectives of the lessons learnt programme, the development of any templates or tools, and the necessary process and impact measures.

### vii. Conclusions and recommendations

Conclusions and recommendations should clearly relate to the findings. The study should present the main evidence to support each conclusion and recommendation (IPDET, 2007). Draw conclusions as to whether the case objective has been met and provide recommendations on how these conclusions could inform future investment in development projects and what the spin-offs are. Give an indication of how to achieve this, who should do what, or what mechanism or system should be in place to ensure the sharing of this knowledge. It should facilitate follow-through and be measurable in terms of performance. Indicate timeframes, such as short, medium and long term.

**References** (Harvard method): List all sources used.

**Appendices**

### 5.4 The case study process and routing

A participative or collaborative approach to case studies is advisable, so that case study evaluators work closely with project officers and beneficiaries to help define the questions to be addressed. This assists in strengthening ownership of the project, facilitating or
transferring skills and capability, as well as promoting democratic governance (World Bank, 1999:13–4). For the DBSA, translating case study reports into training modules is certainly a recommended intervention.

Routing has to be determined by the assignment team, but the current view is that the case study should be peer reviewed through the Centres of Excellence, Communities of Interest and Communities of Practice. From there, it is sent for managerial approval at Operations and Development Planning and, finally, to the Knowledge Integration Cluster. It is then captured electronically in categories on the web, feeding into policies, systems or processes, as appropriate for access and dissemination.
6. References


