Developing evaluation constructs in management and entrepreneurship for women construction SMMEs

by

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Abstract for DBA Thesis: Developing evaluation constructs in management and entrepreneurship for women construction SMMEs. April 2003 C T Verwey

This thesis demonstrated how business management could benefit from evaluation constructs. The constructs 'Outcomes' and 'Logframes' proved to be helpful exploring effectiveness. Logframes and evaluation constructs can enhance business plans.

Gender empowerment regulations present a window of opportunity for women construction entrepreneurs, but to qualify for national or international business opportunities, agencies require Logframes in business plans. To open this window of opportunity, women entrepreneurs should be ready regarding their plans, skills, outcomes, acceptability and utilization, by taking note of evaluation constructs.

Two instruments were developed to test the outcome construct empirically, and two case studies done to illustrate Logframes. Given the excellent results of the Cronbach Alpha and Factor Analysis, the instruments developed proved to be reliable and valid and could be used for similar studies.

The study found that women construction entrepreneurs still have a long way to go before they will be accepted and fully utilised. Even female respondents were negative about women's technical skills. The four constructs testing education and management skills pointed out that neither males nor females are acceptable. Training should therefore include technical, entrepreneurial and managerial training.

In some areas officials adjudicating tenders are far more negative than inspectors handling feedback from clients, and the private sector are far more positive than some other sectors in accepting women entrepreneurs. The ANOVA pointed out statistical and practical differences regarding opportunities. The findings are in line with the opinion of women in construction that they do not get adequate access.

There was a significant positive attitude from the survey respondents towards SAWiC as an association. The acceptability, utilisation and outcomes of their training and networking opportunities by both male and female entrepreneurs in all nine provinces are high. SAWiC can thus have a positive influence on the further development of women construction entrepreneurs.

Evaluation becomes big business. As enterprise it can also benefit from management theory. The roles of the Corporate Evaluator and Corporate Entrepreneur are similar regarding innovation, new ideas, alternatives, efficiency and effectiveness. As evaluators are sometimes whistle-blowers, they also need 'ombudspersons and godparents' to protect them from managerial manipulation and harassment. (349 words)

Glossary:

AA	Affirmative Action
AA	AccountAbility
ADB	Asian Development Bank
AEA	American Evaluation Association
AfD	Agence francaise de developpement
AfDB	African Development Bank ADB (Asia);
APDF	African Project Development Facility, World Bank
ANOVA	Analysis of Variance
ARDE	Annual Review of Development Effectiveness, World Bank
ASAQS	Association of SA Quantity Surveyors
AusAid	Australian Agency for International Development
BCR	Benefit Cost Ratio
BEE	Black Economic Empowerment
BIFSA	Building Industries Federation South Africa
BMZ	German Ministry for Economic Cooperation and Development
CDF	Comprehensive Development Framework
CBO	Community Based Organisations
CDD	Community Driven Development
CE	Corporate Entrepreneurship
CETA	Construction Education and Training Authority
CIDA	Canadian International Development Aid
CIDB	Construction Industry Development Board
CPM	Critical Path Methods
CORE	Corporate Recording System of DBSA
CWIQ	Core Welfare Indicators Questionnaire
DANIDA	Danish International Development Agency
DBSA	Development Bank of Southern Africa
DFID	British Department for International Development
DPW	Department of Public Works
DFIs	Development Finance Institutions
DTI	Department of Trade and Industry
E&D	Evaluation and Development
EBRD	European Bank for Reconstruction and Development
ECD	Evaluation Capacity Development
EDI	Economic Development Institute, World Bank
ETR	Evaluation Team Rating
EU	European Union
ERR	Economic Rate of Return
FINNIDA	Finnish International Development Agency
GSSP	Gender-mainstreaming Sector Strategy Paper
GTZ	Germany's technical cooperation agency
IBLF	International Business Leaders Forum
IC	Intellectual Capital
ICB	International competitive bidding
IDB	Inter-American Development Bank
IDC	Industrial Development Corporation
IDRC	International Development Research Centre in Canada
IDEAS	International Development Evaluation Association
IFAD	Fund for Agriculture Development
IFC	International Finance Corporation
ILO	International Labour Organisation
IMF	International Monetary Fund
IPDET	International Program for Development Evaluation Training
IRR	Internal Rate of Return
ITAD	International Training and Development Institute
JICA	Japan's International Cooperation Agency

KM	Knowledge Management
KPI	Key Performance Indicators
LF	Logical Framework or Logframe
LFA	Logical Framework Approach
LFM	Logical Framework Matrix
LSMS	Living Standards Measurement Survey
MAP	Millennium Partnership for the African Recovery Programme
MDGs	Millennium Development Goals
M&E	Monitoring and Evaluation
MIT	Massachusetts Institute for Technology
NAWIC	North American Women in Construction
NEPAD	The New Partnership For Africa's Development
NGO	Non-Government Organisation
NORAD	Norway's Agency for Development
NPV	Net Present Value
NURCHA	National Urban Reconstruction and Housing Agency
OEU	Operations Evaluation Unit at DBSA
OED	Operations Evaluation Department at the World Bank
OECD	Organisation for Economic Cooperation and Development
OXO	Observation, Experimentation, Observation
PCM	Project Cycle Management
PES	Program Evaluation Standards
PERT	Program Evaluation and Review Technique
PETS	Public expenditure tracking surveys
PME	Participatory Monitoring and Evaluation
PPM	Project-planning matrix
PPP	Public Private Partnerships
PPP	People, Planet, Prosperity
PRSPs	Poverty Reduction Strategy Papers
QQT	Quality, quantity, time
RFIs	Retail Financial Intermediaries
RRA	Rapid rural appraisal
R&D	Research and Development
SA	South Africa
SA	Social Assessment
SAM	Social Accountancy Matrix
SAS	Statistical Analysis System
SAWEF	South African Women's Empowerment Foundation
SAWEN	South African Women Entrepreneurs Network
SAWiC	South African Women in Construction Association
SEWA	Self Employed Women's Association
SIDA	Sweden's International Development Agency
SL	Sustainable Livelihood
SMMEs	Small Medium and Micro Enterprises
TP	Targeted Procurement
TWIB	Technology for Women in Business
UN	United Nations
UNCED	United Nations Conference on Environment and Development
USAID	United States Agency for International Development
vs.	versus
WBS	Work Breakdown Structure
WiC	Women in Construction
WID	Women in Development
WKKF	WK Kellogg Foundation
WSSD	World Summit for Sustainable Development
ZOPP	'Zielorientierte Projektplanung', Objectives-oriented Project Planning

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Chapter 1: Introduction

1.1 Research orientation

Through the millenniums collapsing structures left their marks on societies and business: "...when the people gave a loud shout, the wall collapsed..." (Joshua 6:20). The collapsing walls of Jericho brought an end to this wealthy trade city, and hampered trade between the east and the west in those days. During the last decades of the previous millennium the collapse of the Berlin Wall and the crumble of the 'iron curtain' indicated the disintegration of communism. Their fall brought new heights to entrepreneurship development and small business management.

After the attack on the World Trade Centre and the collapsing twin towers in New York on 11 September 2001, questions are now being asked about the hatred of those opposing western business ways. Entrepreneurship, business management and global capitalism will never be the same again. Despite political rhetoric and power shows of western leaders, evaluation, ethics, reappraisal, responsibility, outcomes, impact and accountability of business will be research topics for the future. These are all evaluation concepts and constructs that business management and entrepreneurs need to be acquainted with in a new century where social responsibility, ethical standards, and environmentally sustainable development will be the triple bottom line of non-financial accountability.

In retrospect Zadek (2002:1) states "the ghastly destruction on the World Trade Centre, the quintessential symbol of global capitalism, will bring with it a realization that *'business as usual'* is both morally bankrupt and, critically, no longer feasible."

The 1990s were known for the empowerment of minorities worldwide, and enabling measures, Affirmative Action (AA) and for gender legislation in South Africa (South Africa 2002). Women hoped that this would bring about the collapse of the tower of chauvinism. But since 2000 the success of externally enforced Affirmative Action is questioned worldwide. National and international funders now require accountability. Empowerment from within, i.e. training, skills, know-how, liability, responsibility and accountability, seems more suitable. A new kind of "Evaluating Affirmative Action AA" in the form of AccountAbility (AA) is being introduced with the establishment of AccountAbility Institutes and Corporate Citizenship Centres worldwide.

Evaluation principles and practices are not new, but just under-utilised by management and entrepreneurs. The first recorded scientific evaluation through

experimental research using control groups (O X O) was done nearly three thousand years ago on Daniel by the king of Babylon, Nebuchadnezzar (Daniel 1:8-21).

The dilemma of evaluation as science is that for many years it was associated with an inspector and a police function. This is no more the case as evaluation itself becomes a democratic and useful process. Although processes and outputs are important, evaluation is shifting its emphasis to outcomes and impact, thus from efficiency measurement to effectiveness measurement. The application field of evaluation concepts is widening, and can include management and entrepreneurship. In today's competitive business world both the following questions are important:

- Are we doing the things right? (Evaluating efficiency)
- Are we doing the right things? (Evaluating effectiveness)

Outcomes evaluation becomes a central focus, if not the central focus, of accountability-driven evaluation (Patton 2002:151; AA 2002).

1.2 Background to thesis theme and author's related experience

The thesis will include the author's prime interests namely Evaluation, Entrepreneurship, Economics and Development. As masters and doctoral student of Economics, as researcher and lecturer in Economics and Education for a decade (1975 to 1985), and as Manager, Policy and Information Analyst, Economist and Education Specialist at the Development Bank of Southern Africa for more than a decade (1985 to 1997) the author was involved in development projects worth several hundred millions of Rand. As Evaluation Specialist at the Development Bank of Southern Africa since 1998, the author had the opportunity to obtain an intensive understanding of projects and programmes and what could go wrong. These lessons learned together with evaluation concepts, methodologies and prescribed procedures will be propagated for business management and entrepreneurship and will be utilised to empower women for entrepreneurial endeavours on national and international financed construction projects and business opportunities. Many women construction entrepreneurs do not succeed in obtaining or keeping business opportunities or large construction projects because they do not meet the basic requirements of Development Finance Institutions (DFIs).

This research presents a window of opportunity and a challenge to promote evaluation as science during a time when learning and 'knowledge management' is the flavour of the decade.

1.3 Problem statement and research questions

1.3.1 Problem statement

The construction sector is familiar with planning models and techniques like PERT (Program Evaluation & Review Technique) and CPM (Critical Path Method) to produce their output in time. Quality control and quantity surveying are well-known concepts for construction SMMEs. Women construction entrepreneurs are anyway aware of quality assurance of their work by building inspectors, quantity surveyors, architects and engineers. But evaluation aspects such as outcomes and impact are not so frequently used, because in the past once the project is completed, the responsibility of the construction SMME ended. This is no longer the case as construction SMMEs are held accountable for various aspects including outcomes and impact. Non-financial accountability and evaluation results require SMMEs, especially in the development fraternity, to take responsibility for their actions.

1.3.2 Research questions

The following research questions will be dealt with per chapter:

What is evaluation?

Where can evaluation constructs and concepts have an impact?

Why should managers and entrepreneurs take note of evaluation concepts?

When can women construction SMMEs benefit from evaluation concepts?

How many tools of the evaluation trade are available to SMMEs?

What are outcomes, logical frameworks and where are they being used?

How can the outcomes aspect be used empirically to benefit SMMEs?

Where and how can the Logframe aspect be used to benefit SMMEs?

1.4 Research objectives

1.4.1 Aim and purpose of this study

The aim and purpose of this study is to deal with the above problem statement and research questions. It will investigate women construction entrepreneur's existence, involvement, barriers and empowerment problems relating to their supply qualities. It will enable women SMMEs to utilize national and international funding especially earmarked to address gender inequalities, to establish networks and to provide suitable and appropriate training. In line with new Non-financial Accountability practice, aspects of an evaluation will be illustrated. To achieve this Empowerment Design Tools, Planning, Monitoring and Evaluation Models (PM&E), Outcomes Mapping and Logframes will be illustrated and used.

1.4.2 Hypotheses

$1H_o$: Evaluation as science and enterprise are contributing to positive changes in the development fraternity.

$1H_a$: Evaluation as science and enterprise are not contributing to positive changes in the development fraternity.

$2H_o$: Evaluation concepts can be successfully used in SMMEs.

$2H_a$: Evaluation concepts cannot be used in SMMEs.

$3H_o$: Evaluation concepts, theory and practice can be successfully used in women construction SMMEs.

$3H_a$: Evaluation concepts, theory and practice have no use in women construction SMMEs.

$4H_o$: Logic modelling and outcome constructs can be successfully used to empower women construction entrepreneurs.

$4H_a$: Logic modelling and outcome constructs have no use to empower women construction entrepreneurs.

$5H_o$: Logframes can be successfully used to empower women construction entrepreneurs.

$5H_a$: Logframes have no use to empower women construction entrepreneurs.

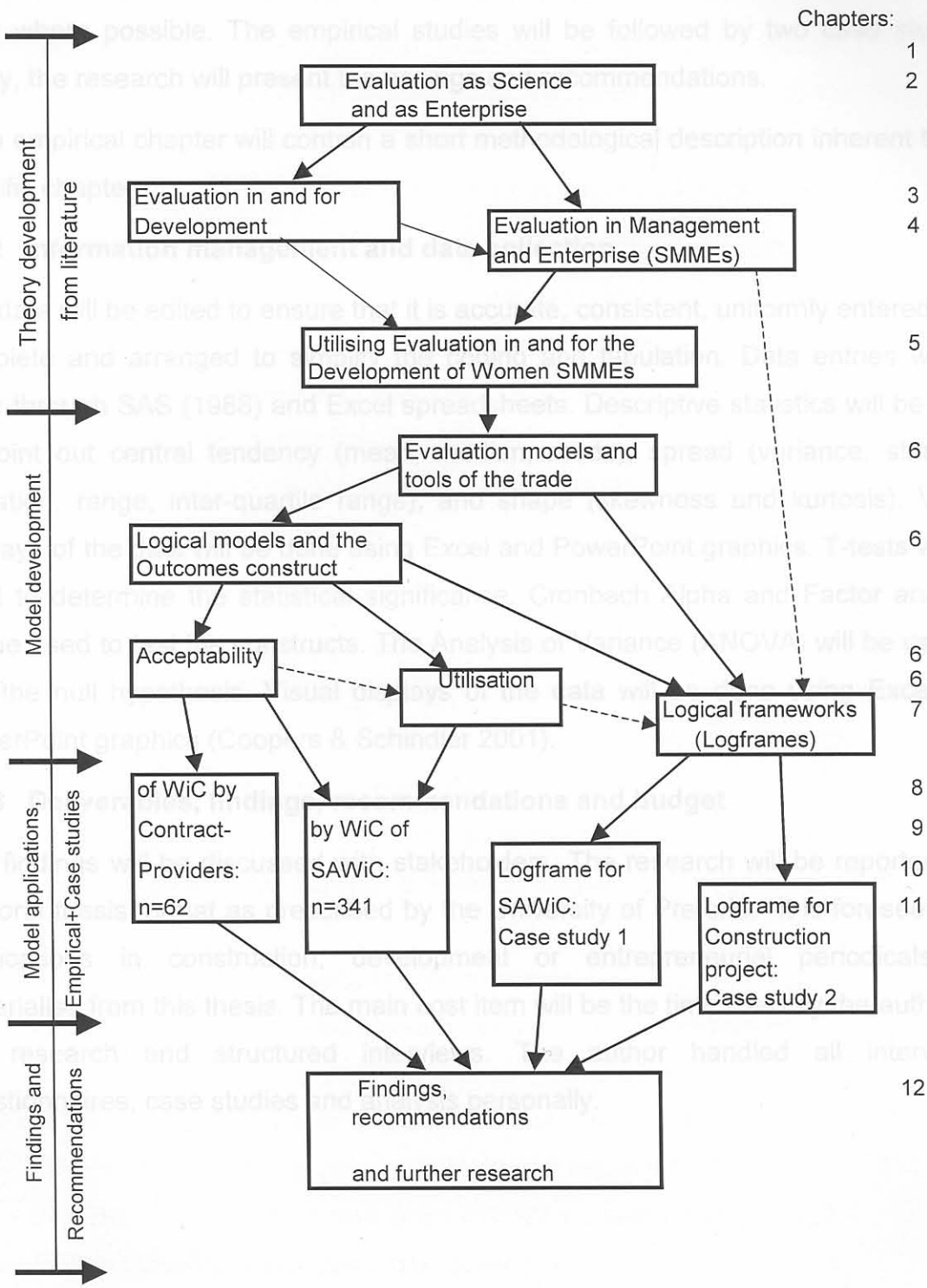
The above hypotheses are a broad indication of the research. The empirical chapters each have detailed descriptions of the methodology used and hypotheses tested.

1.4.3. Beneficiaries and benefits

The main beneficiaries of the research will be business managers and entrepreneurs in construction SMMEs including SAWiC (South African Women in Construction Association) and members of gender empowerment associations. They need to maximise their empowering role and function by capitalising on private, national and international funding. The national and international development fraternity will benefit in the sense that it will guide their investments to promote economic development. The research introduces ways and means how entrepreneurship could benefit from accountability, evaluation, outcome and impact concepts and models. For this research to have a development impact on the lives of women, it is important that the outcome of the research (thesis) will be *accepted and utilised* by gender organisations and their members (What is preached will be practiced!).

1.5 Design and methodology

1.5.1 Research design and schematic outlay



The literature study part will mainly entail theory development and information management. Secondly, the model development part will handle evaluation models and the tools of the trade. Thirdly the models will be applied by means of two comprehensive Research Programme Questionnaires. Four point Likert scales will be used where possible. The empirical studies will be followed by two case studies. Lastly, the research will present the findings and recommendations.

Each empirical chapter will contain a short methodological description inherent to the specific chapter.

1.5.2 Information management and data collection

The data will be edited to ensure that it is accurate, consistent, uniformly entered, and complete and arranged to simplify the coding and tabulation. Data entries will be done through SAS (1988) and Excel spreadsheets. Descriptive statistics will be used to point out central tendency (mean, median, mode), spread (variance, standard deviation, range, inter-quartile range), and shape (skewness and kurtosis). Visual displays of the data will be done using Excel and PowerPoint graphics. T-tests will be used to determine the statistical significance. Cronbach Alpha and Factor analysis will be used to test the constructs. The Analysis of Variance (ANOVA) will be used to test the null hypothesis. Visual displays of the data will be done using Excel and PowerPoint graphics (Coopers & Schindler 2001).

1.5.3 Deliverables, findings, recommendations and budget

The findings will be discussed with stakeholders. The research will be reported in a doctoral thesis format as prescribed by the University of Pretoria. It is foreseen that publications in construction, development or entrepreneurial periodicals will materialise from this thesis. The main cost item will be the time used by the author for the research and structured interviews. The author handled all interviews, questionnaires, case studies and analysis personally.

Chapter 2. Evaluation as science and as enterprise

2.1 Introduction

Although King Nebuchadnezzar practised Evaluation Studies millenniums ago in Babylon with Daniel's diet, even in our day management and entrepreneurs steer away from evaluation concepts and practices. According to Patton (1997:157) evaluation as science has much to offer, BUT the "shift of thinking to the evaluation terminology of outcomes and impact" proves difficult in enterprises with a long history of focusing only on profits, services, performance, activities and outputs.

Fortunately the traditional entrepreneurship environment is changing as "Evaluating AA" in the form of AccountAbility (AA) is being introduced with the establishment of AccountAbility Institutes and Corporate Citizenship Centres. Social responsibility, ethical standards, and environmentally sustainable development are the triple bottom line of non-financial accountability (AA 2002). This changing environment created a new demand for evaluations. According to Dollinger (1999:69), changes in business environment offer opportunities for entrepreneurs, although Chelimsky (1995:11) warns that changes in institutions "usually come slowly."

Evaluations should be mainstreamed in management and entrepreneurship, but are not easy as Sanders (2002:253) explains: "The practice of evaluation in organizations continues to be limited by perceptions that evaluation is a marginal activity. Arguments demonstrating the importance of evaluation have been ineffective in moving most organizations toward integrating evaluation into their daily routines. A multifaceted approach to making evaluation a part of organizational culture is proposed."

Chapter 2 deals with the following similar questions:

- WHAT are evaluation and development evaluation all about?
- HOW are evaluation, monitoring and surveillance being used?
- WHAT are valuation, accountability, responsiveness and triple bottom line?
- WHY is it necessary to be accountable and responsible?
- WHERE do evaluations take place? HOW are evaluators guided?
- FROM WHERE did evaluation originate?
- HOW, WHAT, and WHEN to evaluate? WHERE does evaluation fit in?
- HOW and WHERE should managers and entrepreneurs utilise evaluation?
- WHY are evaluators being misused? HOW can misevaluations take place?
- WHAT can be done to enhance the usefulness and influence of evaluation?

2.2 Defining evaluation and related concepts

According to De Vos (2000:365) evaluation is the "weighting or assessing the value of something." Patton (1997:23) defines program evaluation as the "systematic collection of information about the activities, characteristics, and outcomes of programs to make judgements about the program, improve program effectiveness, and inform decisions about future programming." Greene (2001:coverpage) refers to the evaluation practice as an "evaluation enterprise", thus an enterprise in itself. According to Stufflebeam (1994:323) 'Evaluation' should be narrowly and consistently defined. Patton, (2002a) elaborates on this by emphasising the common sense meaning of evaluation as the "worth of an object", and explains the origin of evaluation: "when somebody asked the question *Why*?" Early visions for evaluation focused on evaluation's expected role in "guiding funding decisions and differentiating the wheat from the chaff..." (Patton, 1997:12). Worthen (1997:5) agrees with them when defining evaluation: "to determine or fix value ... to examine and judge."

On a lighter note, for Halcolm, as denoted by Patton (1997:3), evaluation is a collective effort to outwit the following human propensities: "insidious prejudice, stultifying fear of the unknown, contagious avoidance, beguiling distortion of reality, awesomely selective perception, stupefying self-deception, profane rationalization, massive avoidance of truth ... all marvels of evolution's selection of the fittest."

Development evaluation in the World Bank (IPDET 2002:m1p3) is defined as: "A systematic search for answers about development interventions that involves gathering, analyzing, interpreting, and reporting information about quality." IPDET (2002 m3p51) defines Social Assessment as "a systematic assessment of the social processes and factors that could affect the outcomes of development projects."

Evaluations can also be evaluated. Evaluating evaluation itself is becoming popular. A meta-evaluation is defined by Patton (2002:211) as "an evaluation of an evaluation." Worthen (1997:450) agrees that no longer is meta-evaluation seen as merely "a nicety." It is now "an expectation." Utilization-focused program evaluation is defined by Patton (1997:23) as "evaluation done for and with specific, intended primary users for specific, intended uses."

IPDET (2002 m3p20) defines Rapid Assessments as "fairly quick and fairly clean" as opposed to "quick and dirty." Rapid Assessments are useful according to IPDET (2002:m3p16) because they intend to do evaluations quickly while obtaining

reasonably accurate and useful information, "by using a systematic strategy to obtain just essential information while the focus is on practical issues."

Not all endeavours are evaluable. IPDET (2002:m3p3) recommends that Evaluability Assessments be done and defines it as "a brief, preliminary study to determine whether an evaluation would be useful and feasible. An evaluability assessment identifies available data resources, clarifies key stakeholders' information needs, and considers the feasibility of different methods for conducting the evaluation."

For Bamberger (2002:1) "Shoestring evaluations" are strategies that can be used to reduce costs and time of an impact evaluation while ensuring acceptable levels of methodological rigor. A form of multiple-site program evaluation that originated in the W. K. Kellogg Foundation (WKKF) is a two-level approach that its developers termed cluster evaluation (Worthen 1997:474). Informal evaluation occurs whenever one chooses from among available alternatives without having somehow collected formal evidence about the relative merit of those alternatives (Worthen 1997:7).

Shadish (2002:1) defines evaluation even wider as "a profession composed of persons with varying interests, potentially encompassing but not limited to the evaluation of programs, products, personnel, policy, performance, proposals, technology, research, theory, and even of evaluation itself." A comprehensive evaluation is defined by (Baker 2000:1) as an evaluation that includes monitoring, process evaluation, cost benefit evaluation, and impact evaluation.

2.3 Evaluation, monitoring and surveillance

Evaluation as science also had its shifts as Patton (2002:151) revealed: "Indeed, in every arena ... international development-emphasis has shifted from providing services to attaining priority outcomes."

Schnoes et al (2000:96) noted that the concept 'evaluation' is used differently by different agencies and authors: "Some distinguish between 'monitoring' activities, which are conducted during project or program implementation to access the efficiency and effectiveness with which inputs are used to achieve intended outputs, and 'evaluation' activities, which assess the extent to which projects or programs have achieved their intended objectives and have produced their intended changes and benefits in the target populations. In other cases the term evaluation is used more broadly to cover both of these functions." For Baker (2000:1) a program monitoring system enables continuous feedback on the status of program

implementation, identifying specific problems as they arise, while process evaluation is concerned with how the program operates and focuses on service delivery.

For OED (2002b:5) Monitoring and Evaluation of development activities provide government officials, development managers, and civil society with better means for learning from past experience, improving service delivery, planning and allocating resources, and demonstrating results "as part of accountability to key stakeholders."

The Development Bank of Southern Africa (OEU, 2000) defined the following:

- MONITORING is a continuous assessment of activities especially done during the Activity and Output phases. It is an essential management tool and part of good management practice and day-to-day management. Monitoring will provide the basis for corrective actions, mainly during construction.
- SURVEILLANCE is similar to monitoring and means 'to observe' but done after completion, during the lifespan of the project or loan, usually 20 years.
- EVALUATION is an assessment of an ongoing or completed project against stated project objectives, the project goal, and the performance indicators contained in the project description and the loan agreement. Evaluations are done after the project was allowed enough time to make an impact.

Participatory Monitoring and Evaluation (PME) is defined by IPDET (2002:m12p89) as: "A broad constellation of approaches, methods and techniques that can be used to strengthen poverty alleviation programs, ensure accountability, build local capacity, and foster an environment of partnership and collaborative learning" as "Most of the time, the outside experts fly in and out without taking the time to listen to the people."

Odwedo (2000:81) agrees with the above definitions: "Monitoring and Evaluation (M&E) is a process of assessing a project or policy and taking any corrective action required. It involves collecting and analysing information about a project and generating recommendations for change. Monitoring is usually conducted as an ongoing activity, throughout the life of the project, whereas evaluations are undertaken at certain intervals such as project midterm and completion."

2.4 Valuation versus evaluation

The concept of value is more familiar to business management and entrepreneurs than the concept evaluation. For De Vos (2000:365) the two are almost similar as "evaluation is the weighting or assessing the value of something." Valuation refers to the estimation of a thing's worth, or prize set on something. According to Todaro

(2000:8) developing economics must be mindful of the crucial roles that "values, attitudes and institutions" play in the overall development process. Values, principles, standards, or qualities are considered worthwhile and desirable. For Wickham (2001:9), an opportunity is a gap in a market where the potential exists to do something better and create value. A value judgement reflects personal or class beliefs in normative economics, according to Todaro (2000:769). According to Kuratko (2001:157) "Successful entrepreneurs, whatever their individual motivation - be it money, power, curiosity, or the desire for fame and recognition, try to create value and make a contribution." Makhubela (2001:1) indicates that as the knowledge economy forces a radical rethinking of organisational value (inclusion of intangible assets and resources), "there is realisation that an organisation's value consists of more than what is shown in its traditional balance – and value sheets (only the tangible assets)."

Kim & Mauborgne (1996:106) distinguish between Conventional Logic versus Value Innovation. "Conventional Logic leads companies to compete at the margin for incremental share. The logic value innovation starts with an ambition to dominate the market by offering a tremendous leap in value. Value innovators never say, here's what competitors are doing; let's do this in response. They monitor competitors but do not use them as benchmarks."

Wickham (2001:6) defines the *Entrepreneurial process* in which the entrepreneur engages, as "the means through which new value is created..." Hisrich (1998:9) agrees with this by saying that "*Entrepreneurship* is the process of creating something new with value", by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence.

Businesses, business managers and entrepreneurs add value and their endeavours can thus be evaluated. Evaluators also add value to future endeavours and projects by evaluating and assessing the outcomes of existing endeavours and projects.

2.5 Evaluation versus accountability, responsiveness and triple bottom line

The traditional entrepreneurship environment is changing with new kind of "Evaluating AA" in the form of AccountAbility (AA). The three issues: social responsibility, ethical standards, and environmentally sustainable development are the triple bottom line of non-financial accountability (AA 2002).

According to Shay (2001:2) social accounting should be regarded as a "practice of excellence" in business. But according to Zadek (2002:1) there are real concerns as to the future course of corporate responsiveness and responsibility as a means of addressing major social and environmental challenges. Even most inveterate inside players were vocal in challenging the adequacy of progress made to date. Such challenges are undoubtedly good news for corporate evaluators.

Todaro (2000:710) stresses the fact that "managers must be made more accountable for resource allocation and investment decisions." For Mayne (1999:9) "Accountability for results is an essential feature of managerialism." On the other hand evaluation serves to identify strengths and weaknesses, highlight the good, and expose the faulty, but cannot single-handedly correct problems, for that is the role of management and other stakeholders according to Worthen (1997:23).

According to Longenecker (2003:524) the first element of AccountAbility, social responsibility, reconciles the need for profit with social obligations, protect interests of customers, employees, suppliers and general public and includes environmental protection and pollution aspects. Managers need to meet regulations even if they are costly, because mistakes can be more costly in terms of legal claims. Socially acceptable actions create goodwill in the community and attract customers, they comply with government, industry and other regulations, are responses to community needs and contribute to community organisations.

Traditionally, accountability has been viewed as "something negative done" to someone, according to Mayne (1999:159). People were held accountable and blame is melted out for failures. Accountability was seen as control and in this view had a rather negative force, something any sensible manager seeks to avoid if possible, as this traditional accountability, besides being an annoyance, is probably seen as of secondary importance to those managers trying to motivate people in accomplishing objectives.

Most people would agree that some amount of regularity is needed, but are quite content to leave it for auditors to handle. Mayne (1999:159) argue strongly against the auditing approach because a mindset of holding all staff accountable for correct procedures appears anti-ethical. "The most effective way to hold employees accountable is to make them feel accountable." They want to be accountable because it is the only way for them, as for us all, to be important (Mayne 1999:160). Accountability is closely related to ethical behaviour and integrity.

2.6 Ethical versus legal concepts in evaluation

For Longenecker (2003:524) ethical issues are questions of right or wrong, questions of integrity, and are going beyond what is legal or illegal. IPDET (2002:m12p38) notes "Ethics are complicated...No single law regulates ethical behavior of evaluators...Behavior can be legal but unethical." Longenecker (2003:526) states four dimensions of integrity: being honest; being truthful; being respectful; and being fair.

"Taking an ethical stand in today's materialistic world can be very costly. Two out of every three whistle-blowers in the past lost their jobs in the organisations whose wrongdoing they exposed" alert Lumsdaine & Lumsdaine (1995:329).

Worthen (1997:291) refers to Morris and Cohn's (1993) survey of AEA (American Evaluation Association) members that netted 459 responses. Of those respondents, nearly two-thirds reported they had encountered ethical problems in their evaluation work. Many of these problems reflect unethical conduct by evaluation participants other than the evaluator. This study found for example:

- "Evaluator is pressured by stakeholders to alter presentation of findings."
- "Findings are suppressed or ignored by stakeholder."
- "Findings are misused by stakeholder."
- "Findings are used to punish evaluator."
- "Findings are used to punish someone other than evaluator."
- "Findings are deliberately modified by stakeholder prior to release."
- "Findings are misinterpreted by stakeholder."
- "Stakeholder misrepresents authorship or plagiarizes report content."
- "Stakeholder prejudges what findings "should be."
- "Stakeholder prejudges what findings in an ethically questionable fashion."
- "Stakeholder declares certain evaluative questions "off-limits", despite their obvious relevance."
- "Sponsors omit other legitimate stakeholders from planning process."
- "Stakeholder pressurizes evaluator to violate confidentiality" (Worthen, 1997).

It is difficult for an evaluator to survive in such a hostile environment, especially when the evaluation community is expecting innovative approaches in evaluations. Russell (1999) notes that innovation is associated with better financial performance in dynamic environments, but is not associated with increased performance in hostile or static environments.

For Eloff (2001:6) the new economy presents challenging opportunities for countries, big business, small businesses and entrepreneurs, but it also requires more from companies "in terms of moral imperatives." AccountAbility (2001b) agrees that trust is an essential ingredient for positive interaction between an organisation and all the people it affects by its activities.

Longenecker (2003:524) states some general principles in dealing with ethics:

- Consider welfare of those around you and do what is right.
- How would you feel if your decisions were to be published in the Daily News?
- How would you explain your acts or decisions to your mother?
- Do the right thing; stick to your principles; principles are not for sale.

According to House (2000:11) the evaluator is "not a passive bystander, an innocent facilitator, or a philosopher king who makes decisions for others, but rather a conscientious professional who adheres to a set of defensible, carefully considered principles for enhancing inclusion, dialogue and deliberation." According to Worthen (1997:327) it is appropriate to suggest that the ultimate ethical principal, "Do unto others as you would have them done to you" is more or less binding on evaluators.

In accordance with IPDET (2002:m12p28) "Ethics always represent a choice" and "Ethical standards provide guidelines for making those choices." For these reasons standards and guiding principles for evaluations are of fundamental importance.

2.7 Standards and guiding principles for evaluations

Evaluators cannot make or break as they wish. The International Business Leaders Forum, IBLF (2002), often discussed good corporate governance and exchange responsible evaluation and business practices. For Bastoe (2000:117) good evaluations constitute: ethics, quality standards, use and dissemination.

According to Shadish (2002:1) the purpose of documenting guiding principles is "to foster continuing development of the profession of evaluation, and the socialization of its members. The principles are meant to stimulate discussion and to provide a language for dialogue about the proper practice and application of evaluation among members of the profession, sponsors of evaluation, and others interested in evaluation."

The following Standards and guiding principles for the evaluation enterprise that was developed by the American Evaluation Association (AEA, 2002b) can be useful for any enterprise:

- Systematic Inquiry: Evaluators conduct systematic, database inquiries about whatever is being evaluated.
- Competence: Evaluators provide competent performance to stakeholders.
- Integrity/Honesty: Evaluators ensure the honesty and integrity of the entire evaluation process.
- Respect for People: Evaluators respect the security, dignity and self-worth of the respondents, program participants, clients, and other stakeholders.
- Responsibilities for General and Public Welfare: Evaluators articulate and take into account the diversity of interests and values.

The American Evaluation Association (AEA) Task Force on Guiding Principles for Evaluators (Shadish 2002:1) investigated the fact that "these principles were developed in the context of Western cultures, particularly the United States, and so may reflect the experiences of that context." The relevance of these principles may vary across other cultures, other continents and even across sub-cultures within the United States.

Bastoe (2000:120) mentioned that the OECD public sector management group (PUMA) developed a set of guidelines called *Best practice guidelines for evaluation*. "PUMA sees evaluation as integrated in a results-oriented environment because it provides feedback on the efficiency, effectiveness and performance of public policies and can be critical to policy improvement and innovation. It contributes to accountable governance."

Other evaluation societies have been through long processes to develop their evaluation standards. The Canadian Evaluation Society has developed what they call "guidelines for ethical conduct" (Bastoe 2000:119), including three concerns:

- Competence; evaluators are to be competent in their provision of services.
- Integrity; evaluators are to act with integrity in their relationships.
- Accountability; evaluators are to be accountable for their performance and their product (AA 2002; Bastoe 2000:117).

A review of the relevance of the Programme Evaluation Standards (PES) to evaluation work in Africa was undertaken in a workshop setting, at the Inaugural Conference of the African Evaluation Association and in several meetings of the Kenya Evaluation Association. Most of the PES was accepted as currently specified. Modifications of some standards were proposed by Patel & Russon (2000:125).

2.8 Evaluation as inspection versus evaluation as research

According to (Worthen 1997:27) in the public sector, formal evaluation was evident as early as 2000 B.C., when Chinese officials conducted civil service inspections and examinations to measure proficiency of public officials, and in education, Socrates used verbally mediated evaluations as part of the learning process. But centuries passed before formal evaluations began to compete with religious and political beliefs as the driving force behind social and educational decisions (Worthen 1997: 27).

It is important for managers and entrepreneurs to know the background of evaluators as well as the ideologies of specific development finance institutions or international funding institutions. There are historical reasons why they place emphasis on different issues. Evaluation science as it is today developed from two main schools:

- The American School: Evaluation became mutations from research. Evaluations were judged on their methodology and research background.
- The English School: Evaluations were based on the school inspection system of smooth operation, auditing and control (Patton, 2002a).

Some evaluation associations have their roots in research. According to Shadish (2002:1) the Evaluation Network (ENet) and the Evaluation Research Society (ERS) merged in 1986 to create the American Evaluation Association (AEA).

Evaluation is a profession "composed of persons with varying interests", potentially encompassing but not limited to the evaluation of programs, products, personnel, policy, performance, proposals, technology, research, theory, and even of evaluation itself (AEA, 2002b:2). The intellectual roots of evaluation and the prominent arena of the evaluation discipline, are traced to the 1960s, the "era of the Great Society, and to what the evaluation discipline has referred to as ... Experimenting Society", according to Caracelli (2000:99).

Worthen (1997: 28) argues that the late 1800s also saw the beginning of efforts to accredit U.S. universities and secondary schools, although accreditation did not really become a potent force for evaluating educational institutions until several strong regional accrediting associations were established in the 1930s.

On a lighter note Worthen (1997: 25) observes: “Evaluation, as an established field, is now in its late adolescent years. The bubbling, exiting, fast developing childhood years of the late 1960s and early 1970s gave way in the mid to late 1970s to the less assured, serious, introspective early adolescent years.”

Nowadays evaluation is according to Patton (1997:103) observed by its "emphasis on reality testing based on systematic data collection for improvement, judging merit and worth, or generating knowledge about effectiveness." The processes of evaluation support change in organizations by getting people engaged in "reality testing", that is, helping them think empirically, with attention to specificity and clarity, and teaching them the methods and utility of data-based decision-making.

2.9 Types of evaluations: Cluster, multi-site and sectoral (theme) evaluations

Multi-site Evaluations are for IPDET (2002:3-6) important because rather than look at a single intervention, it is sometimes more useful to look at interventions that have been implemented in a variety of locations. The intervention may have been implemented in the same way in all locations or implemented slightly differently in each location. "This type of evaluation provides information about the overall experience of the intervention as well as a deeper understanding about the variations."

Cluster evaluations are similar to multi-site evaluations but the intention is different. Like multi-site evaluations, cluster evaluations focus on interventions that share a common mission, strategy and target population. However, the evaluation is not intended to determine whether an intervention works or to assure accountability. It does not evaluate the success or failure of individual interventions nor does it identify interventions to be terminated. Its intent is to learn about what happened across the clusters and to ascertain lessons learned. Information is only reported in aggregate so that no one project is identified (IPDET 2002:3-6). Cluster evaluations originated in the W. K. Kellogg Foundation (WKKF) as a two-level approach (Worthen 1997:474).

IPDET (2002:3-6) classifies Sector or Thematic Evaluations as studies that can compare experiences across countries about a sector or theme such as health, nutrition and population study.

The evaluation process also reveals different types of evaluations.

2.10 The Evaluation Process: How, what, and when to evaluate

The Evaluation Process is similar to the following Research Process described by Coopers & Schindler (2001:61) as:

- Management Dilemma;
- Research Questions;
- Management Questions;

- Investigative Questions;
- Measurement Questions; and
- Management Decision.

How? According to IPDET (2002:m2p5) the Evaluation Process consists of the following:

1. Planning the Design:
   - Understand context, develop logic model;
   - Assess stakeholders' needs;
   - Identify evaluation questions;
   - Select appropriate design, measures, criteria;
   - Develop data collection strategy, including sampling plan;
   - Develop data analysis strategy; and
   - Prepare work plan.
2. Doing:
   - Gather the data;
   - Prepare data for analysis;
   - Analyse data;
   - Interpret the data; and
   - Formulate findings.
3. Reporting the results:
   - Major findings: what works, what doesn't;
   - Clear, simple language;
   - Use of charts and tables to highlight major findings; and
   - Plan for dissemination.
4. Recommendations:
   - Clear and specific;
   - Who should do what;
   - Evidence to support recommendations; and
   - Logical relationship between recommendations.
5. Feedback process to:
   - Stakeholders;
   - Project managers,
   - Donors, Officials,
   - Beneficiaries, members of community.

What to Evaluate? According to IPDET (2002:m2p5) the following aspects are candidates for evaluation

- A single intervention or project in one location or a single project implemented in several locations.
- Intervention and programs comprised of various activities which are intended to contribute to a common goal.
- Organizations and multiple intervention programs delivered by an organization.
- Themes and sectors; evaluations of interventions across a specific policy arena, such as education, forestry, agriculture, and health.
- Country assistance; evaluations of progress relative to the plan, the overall effect of aid, and Lessons learned.

When to Evaluate? According to IPDET (2002:m2p5) the best time to evaluate is:

- Before development intervention starts to improve design;
- During the implementation to improve implementation and to identify barriers to be removed;
- Mid-term evaluation to determine relevance, effectiveness, efficiency, lessons learned; as a management tool;
- Terminal evaluation at the end of intervention to determine relevance, effectiveness, efficiency, early signs of impact and sustainability and to obtain lessons learned for future projects;
- Ex-post evaluation is conducted two or more years after the completion of mature interventions and is preferred for clusters, geographical location or theme and judges relevance, performance and success, lessons learned for future policy and for formulation or programming.

According to Bamberger (2002:6) in many cases good estimates on most or all of the evaluation questions can be obtained with relatively simple evaluation designs. Obviously the larger and more complex the project, the longer the time period being studied and the more diverse the areas in which it is operating, the more important it becomes to use more rigorous evaluation designs.

2.11 Evaluation as enterprise; developing a niche and scope

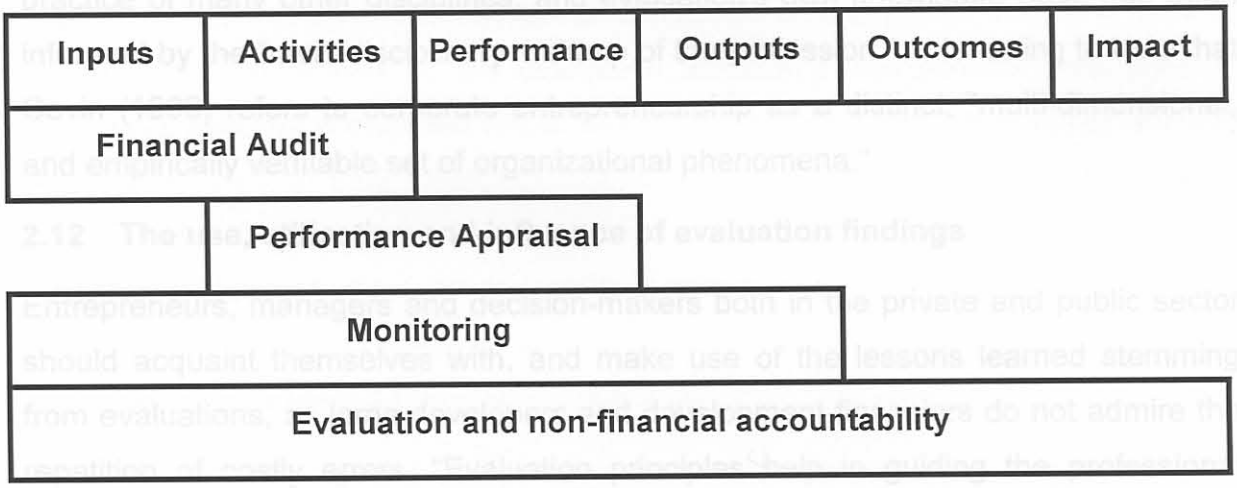
An evaluator can also be an entrepreneur. For Hisrich (1998:9) entrepreneurs are found in all professions - education, medicine, research, law, architecture, engineering, social work, and distribution, and therefore also in evaluation. Evaluation

entrepreneurs are in dire need for development success because the failure of many development efforts has prompted the development community to search for a "new paradigm to guide the formulation, implementation and *evaluation* of development strategies" (Essama-Nssah 2000).

Evaluation should span over the whole spectrum of an operation, much wider than audit. Auditors across the world are beginning to include evaluation – which they call "performance audit," or "value for money audit" or "comprehensive audit" – as one of their key work areas... "and auditors are recognizing more and more that an evaluation is not at all the same thing as an audit" (Chelimsky, 1995:3).

Auditing is according to IPDET (2002:m1p4) rooted in financial accounting concepts such as compliance, verification, internal controls and good management practices. It compares "what is" to "what should be." Performance audit is an objective and systematic examination of evidence to ensure accountability.

Figure 2.1: The niche and scope of the evaluation practice



(Developed from the World Bank OED model: Picciotto & Rist, 1995:240).

Evaluation differs from auditing in that it is "not necessarily based on known criteria", but starts with clarification of criteria. Bastoe (2000:120) defines auditing as "essentially normative, examining the match or discrepancy between the criterion and the actual condition."

Based on differences in training, experience, and work settings, the profession of evaluation encompasses diverse perceptions about the primary purpose of evaluation. According to Shadish (2002:1) "These include but are not limited to the following: bettering products, personnel, programs, organizations, governments, consumers and the public interest; contributing to informed decision-making and

more enlightened change; precipitating needed change; empowering all stakeholders by collecting data from them and engaging them in the evaluation process; and experiencing the excitement of new insights. Despite that diversity, the common ground is that evaluators aspire to construct and provide the best possible information that might bear on the value of whatever is being evaluated." Lacking a single intellectual rallying point, development professionals must inevitably trespass across disciplines as "no single discipline can claim to dominate an endeavour that deals with the multiple challenges, hopes, and exertions of most of human-kind" (Picciotto & Rist, 1995:x).

For Greene, (2001) the "evaluation enterprise" is becoming "big business", and evaluators are like entrepreneurs and corporate entrepreneurs, also looking for opportunities.

Evaluation is not a discipline on its own. Caracelli (2000:103) describes evaluation's niche as "transdiscipline." Evaluation is actually interdisciplinary as it informs the practice of many other disciplines, and evaluation's own knowledge base has been informed by the "multi-disciplinary makeup of the profession." Interesting to note that Covin (1999) refers to corporate entrepreneurship as a distinct, "multi-dimensional, and empirically verifiable set of organizational phenomena."

2.12 The use, utilisation and influence of evaluation findings

Entrepreneurs, managers and decision-makers both in the private and public sector should acquaint themselves with, and make use of the lessons learned stemming from evaluations, as large developers and development financiers do not admire the repetition of costly errors. "Evaluation principles help in guiding the professional practice of evaluators, inform evaluation clients and the general public about the principles they can expect to be upheld by professional evaluators" (Bastoe 2000:118).

The reason for paying so much attention to user's milieu is that "policy makers and evaluators are quite different with respect to their goals" (Chelimsky, 1995:6). To the user, evidence based on a thorough evaluation may merely be instrumental to a negotiation or a decision, while to the evaluator's evidence it is the end in itself. Evaluators do not invoke certainty unless their data provide such certainty, but decision- and policy makers may place positive value on making a decision, "regardless of whether there is strong objective evidence to support that decision"

(Chelimsky, 1995:6). Another possible reason why evaluation is not frequently used, is the "difficulty of the task" (Squire 1995:47).

To be useful, evaluation must add something to the process or function to which it is linked (Picciotto & Rist, 1995:x). Like 'development', 'evaluation' is used in several dimensions. Historically, conversations about influence have occurred under several themes: "internal and external evaluation, evaluators roles, evaluation as a profession, ethics and values, and use of results" (Kirkhart 2000:5). The domain of development hinges on the notion of the things that are worth promoting (Essama-Nssah 2000).

"Evaluators are trained, are least in part, to be sceptics, to raise insightful (one hopes) questions that otherwise may never have been considered" according to Worthen (1997:255). This training is never more valuable than during the divergent phase of identifying evaluation questions and criteria, for some important questions may be omitted unless the evaluator raises them himself.

A problem hampering the utilisation of evaluation in many countries is a lack of interest and commitment to the evaluation function at the political level (Bastoe 2000:117). The space engineer Roger Biosjoly's evaluation was timely but in vain. He desperately tried to stop Challenger Space Shuttle's launch when he discovered problems, but his monitoring and evaluation of the fatal problem was ignored. The Challenger space shuttle exploded while launched in January 1986. Roger "left the space programme and became a champion for training professionals in ethical sensitivity" (Lumsdaine & Lumsdaine 1995:239).

According to IPDET (2002:m2p5) the following institutions use and should benefit from evaluation: Government officials; Parliament; Program managers and staff; Citizens; Businesses; NGOs; Civil society; Donors; Participants.

For Patton (1997:79) evaluation findings have mainly three uses: To render judgement, to improve programs, and to generate knowledge-support decision-making (enlightenment).

- Rendering judgement: This is about overall merit or worth of the program or endeavour. It might influence a major decision whether it should be continued, enlarged, disseminated, or terminated.

- Improvement: Decisions about how to improve a program tend to be made in small, incremental steps based on specific evaluation findings aimed at instrumental use.
- Enlightenment: Policy decisions informed by cumulative knowledge from evaluation imply a weak and diffuse connection between specific evaluation findings and the eventual decision made.

Using monitoring and evaluation findings on similar projects are extremely important in any entrepreneurial endeavour. It is simply too costly to ignore the lessons learned and to make the same mistakes.

Worthen (1997:23) warns that the so-called usefulness of evaluation has led some persons to look to it as a panacea for all the ills of society. "But evaluation alone cannot solve all the problems of society. One of the biggest mistakes of evaluators is to promise results that cannot possibly be attained."

2.13 Misusing and harassment of evaluators for misrepresentation

"Misuse and harassment of evaluators still happen everywhere" (Bastoe 2000:117). Organisations and management want to hear good things about themselves. Bad news is not appreciated and often sidelined. The Internal Recognition and Reward (IRR) and performance systems of corporations place much emphasis on positive things, therefore evaluation processes and findings can be misused in the search for political and economic advantage.

According to Worthen (1997:230) the political nature of decisions should not be underestimated: E.g.: Whose values are attended to, how they are weighted, what variables are studied, how information is reported and to whom, how clients and other audiences intend to use evaluative information, what kind of support is given to the evaluation and by whom, what potentially embarrassing information is hidden, what possible actions might be taken to subvert the evaluation, and how the evaluator might be co-opted by individuals or groups? (Worthen 1997:230).

Lumsdaine & Lumsdaine (1995:329) warned that unfortunately evaluators are blackmailed in organisations that do not like their ethical standpoints and many of these "ethical resisters" were fired in the past without the prospect of ever getting a job again!

The basic obstacles to a more influential evaluation function are institutional constraints and with the frequent lack of "effective communications between

evaluators and decision makers." Ethical standards are of crucial importance to evaluators. They need to "ask the right questions, avoid emotionally and politically charged issues, use the right mix of evaluation methods, and make lucid, credible presentations" (Picciotto & Rist, 1995:x).

According to Sandstrom (1995:14) managers and critics can sometimes use the information in an unfair or distorted manner. Management often misuse evaluators to paint a colourful picture of enterprise endeavours. Evaluation findings, often distorted, are main headings in many annual reports. Being more open and rigorous about evaluation does not always make life comfortable, especially where evaluators need to question the endeavours of colleagues.

Evaluators have to make use of all kinds of participatory methods to get their message across to top management and board, without being fired by middle management. It is important to take note that the role of the evaluator is expanding from "dispassionate outsider to co-investigator with program staff, who assumes a variety of roles that require degrees of engagement with stakeholders" (Caracelli 2000:103).

Zadek (2002:2) warns that like all movements in their stages, "the field of corporate responsibility has been dogged by over-idealism, evangelism, and a lack of serious self-critique." Good communication is necessary to overcome the negative ideas on evaluation. Russell (1999) states that communication and scanning are positively correlated with corporate entrepreneuring while control is negatively correlated.

It is not easy for evaluators and managers to trust one another. "I would still advise any evaluator to remember that when the lion and calf lie down together, the calf isn't likely to get much sleep" warns Chelimsky (1995:11).

This is why Evaluation Associations set "Propriety Standards" to curb misuse. The propriety standards are intended to ensure that an evaluation will be conducted legally, ethically, and with due regard for the welfare of those involved in the evaluation, as well as those affected by its results (AEA, 2002a:3).

Evaluators have become self-consciously aware that evaluation studies are often misused or ignored, with the result that some individuals have argued for decreased emphasis on the evaluative process. "But that seems no more sensible than abandoning medical diagnosis because science has not yet successfully eliminated all disease" (Worthen 1997: 510).

2.14 Misevaluations and misunderstanding evaluations and evaluators

Alkin (1988) referred to by Patton (1997:359-360) made a critical distinction of *misevaluation*, in which an evaluator performs poorly or fails to adhere to standards and principles, and *misuse*, in which users manipulate the evaluation in ways that distort the findings or corrupt the inquiry. Misevaluation includes the oversight and omission of essential information that might guide the evaluation findings in another direction. This often happen when the evaluators or team members are not independent and are prescribed by managers who obviously have hidden agendas. In the past problems with results-based use of evaluation results caused some mistrusting of the evaluator (Caracelli 2000:103). The performance based recognition and rewards systems are biased towards institutional upholding and do not tolerate negative criticism on endeavours. According to Todaro (2000:8) "Institutional and structural problems and the power of historical, cultural and religious forces should not be underestimated."

Misunderstandings and misperceptions often result between evaluators on the one side and managers, entrepreneurs and decision-makers on the other side, which lead to misevaluations. "Yet unless policymakers, managers, and staff, both in developing countries and development agencies, internalise the processes and lessons of evaluation, evaluation will have limited benefits on the ground" (Picciotto & Rist, 1995: xiii-xiv).

Reliable evaluation results will have to become embedded within the values, processes, and incentive framework that inform the decision making process. Evaluators need to write reports in such a way that everybody will feel good. Especially in an African context, Patel & Russon (2000:125) suggest that an evaluative report might be "selectively supportive, rather than critically comprehensive."

For Cronbach (1982:239), a pioneer on measurement, evaluation is as much art as science: "Developing an evaluation is an exercise of the dramatic imagination." Data and indicators can misrepresent. Indicators should be accurate because it presents a balanced presentation of financial, operational and impact performance, "what you measure is what you get", summarise complex information "at a glance" and ensures evaluability of projects (ITAD, 1999).

Validity of evaluation findings is important. Bamberger (2002:11) warns that "In their efforts to reduce time and costs evaluators have frequently ignored some of the basic principles of evaluation design such as: random sampling, specification of the evaluation model, instrument development, and full documentation of the data collection and analysis process. As a consequence many rapid evaluations suffer from serious methodological weaknesses which threaten the validity or generalizability of evaluation findings."

Patton (1997:251) refers to Sir Josiah Stamp an English economist who said already in 1911: "The government ministries are very keen on amassing statistics. They collect them, raise them to the n-th power, take the cube root, and prepare wonderful diagrams. But you must never forget that every one of these figures comes in the first place from the village watchman, who just puts down what he damn well pleases."

Alkin (Patton 1997:251) studied utilisation and found that "for evaluations to have impact, users must believe what evaluators have to say." The "believability" of an evaluation depends on much more than the perceived scientific validity of the data and findings. Believability depends on the users' perceptions of and experiences with the program being evaluated, users' prior knowledge and prejudices, the perceived adequacy of evaluation procedures, and the users' trust in the evaluator. Trust, believability, and credibility are the "underpinnings of overall evaluation validity."

Without wide participation by members of all partner organisations in the processes of planning the evaluation, the principles and priorities of each party will not be fully reflected in the final plan. Even the Logframe can "conceal differences in interest of the various actors involved, hence, dangerously ignoring potential areas of conflict that may jeopardise the success of the intervention" (Pasteur 2001).

2.15 Enhancing the usefulness and influence of evaluation

Evaluations should be used and be useful for managers, entrepreneurs and decision-makers. For Patton (1997:20) utilization-focused evaluation begins with the premise that evaluations should be "judged by utility and actual use", therefore, "evaluators should facilitate the evaluation process and design any evaluation with careful consideration of how everything that is done, from beginning to end, will affect use."

Creating a successful evaluation function means "bringing together skilled evaluators and helping them understand each other; choosing topics to evaluate that are both important in a policy sense and evaluable; finding the time, funding, and user

commitment to do the job properly; protecting the independence of the function; supporting evaluators in fighting against distortion of their findings; and ensuring that evaluators understand the culture and information needs of sometimes far-away users, on whom the impact of their findings may depend" (Chelimsky, 1995:11). Simple methods and graphical presentation of findings may be needed to communicate best (Scheifer 2000:143).

The construct of 'use' itself has multiple attributes (Caracelli 2000:102). Kirkhart's (2000) integrated theory of influence represents an incorporation of past understandings of use based on evaluation literature, as well as providing a deeper, more developed and differentiated construct of use in light of the changing circumstances of the field and its increasing diversity, argues Caracelli (2000:102).

Useful evaluations as well as "Evaluation Impact" are important for the America Evaluation Association. "Evaluations should be planned, conducted, and reported in ways that encourage follow-through by stakeholders, so that the likelihood that the evaluation will be used is increased" (AEA, 2002a). Since the objective is to empower the poor, their views should play an important role in the evaluation (Squire 1995:47). It is suggested by Scheifer (2000:139) that performance measure data that are already being collected could become much more useful, by further analysing the relationships among several types of measures, and then analysing variability among program delivery units for those measures by using logic models (Please refer to Chapters 6 & 7).

Useful evaluation reports should clearly describe the program being evaluated, including its context, and the purposes, procedures, and findings of the evaluation, so that essential information is provided and easily understood (AEA, 2002a). Beneficiary assessments could help to identify projects for which the assessments are likely to be most valuable and could measure the return (Squire 1995:51). Patton (1997) describes Stake's responsive evaluation (1975) as "an alternative to the dominant experimental paradigm and one that influenced evaluators to think about the connection between methods and use" (Caracelli 2000;101).

According to IPDET (2002:m12p22) the use of evaluation can be improved by "gaining support from the top, increase their awareness of the role, evaluations can play and how it can help them and help them set realistic expectations." Evaluations should be on time according to IPDET (2002:12-25) because "A good evaluation that arrives after the decision has been made is useless."

For evaluation findings to be used more in policy making, it is "almost as important for evaluators to understand their user – and thereby be able to explain their findings in terms that make sense to him or her – as it is for the findings to be methodologically strong and compelling in their own right" (Chelimsky, 1995:8).

To enhance evaluation influence, it should be conceptualised along three dimensions (Caracelli 2000:102):

- Source: addressing results-based and process-based influence;
- Intention: addressing intended and unintended influence; and
- Time: addressing influence that occurs during evaluation, at the end of evaluation, and in the future.

The Evaluator should according to IPDET (2002:m12p98) be a facilitator that:

- Is self-aware and self-critical;
- Promotes mistakes as opportunities to learn;
- Focuses on process, not outcome; and
- Sits, listens, and learns.

To maximize the usefulness of evaluations stakeholders at the "top, bottom, and side" should be involved according to IPDET (2002:m12p22). According to Caracelli (2000:102) the shift in terminology from use to influence creates a broader framework that allows for multiple perspectives.

Corporations that use corporate evaluators are in many cases progressive institutions that also know the benefits of corporate entrepreneurs to optimise on innovation, creative ideas, effectiveness and efficiency.

2.16 Similarities between the corporate entrepreneur and the corporate evaluator

Evaluators can learn from management and entrepreneurial constructs. The corporate entrepreneur (intrapreneur) as construct is important to discuss due to the similarities between the problems and experience of the evaluation construct.

Although the constructs of entrepreneurship has been limited to new venture creation by some scholars, according to Dess (1999), Corporate Entrepreneurship (CE) may be viewed more broadly as consisting of the birth of new businesses within existing organizations and the transformation of organizations through strategic renewal, i.e., the creation of new wealth through the combination of resources. Barrett et al (2000) sees CE wider: Researchers have defined numerous dimensions of individual

entrepreneurship that translate well to corporate entrepreneurship. CE can be defined as an organizational process that encourages and practices the utilization of innovation, constructive risk-taking, and pursuit of new opportunities.

Russell (1999) uses a cognitive mapping approach to build a model of corporate entrepreneurship from an organizational perspective. This approach analyzes corporate entrepreneuring from a systems viewpoint and facilitates an understanding of the process through which entrepreneurial firms generate innovation. Covin (1999) agrees with Russell (1999) in defining corporate entrepreneurship as the presence of innovation, and adds competitive superiority to his definition. "Fostering intrapreneurial behaviors and practices has assumed prime importance in the grand strategies of many firms where creating innovation is perceived as an important means of establishing and maintaining competitive advantage as well as a method for initiating corporate renewal" argues Russell (1999). Covin (1999) argues that innovation, broadly defined, is the single common theme underlying all forms of corporate entrepreneurship.

Schindehutte et al (2000) state that entrepreneurship can be found in any established organization, and not only businesses. She stresses the concept of "entrepreneurial intensity", which focuses on both the frequency and degree of entrepreneurship in a company or organisation.

The role of the evaluator, especially the corporate evaluator, fits neatly into the definitions of a corporate entrepreneur. Evaluations should be innovative; it should create new ideas on old issues, and should investigate alternative ways to reach effectiveness. Although difficult to achieve, obtaining the "appropriate level of venture autonomy can reap great rewards" according to Simon (1999).

Another similarity between intrapreneurship and evaluation is sometimes the "corporation's unwarranted prosecution" (Simon 1999), the impatience, jealousy and suspicion of middle management, the lack of adequate funds, and what Worthen (1997:291) calls punishment, misinterpretation, prejudgement and hostile environments that the evaluator must endure. Simon (1999) suggests a managerial approach that will stimulate innovation and "re-energise employees."

To counteract the above negative aspects, Simon (1999) suggests three roles to protect the corporate entrepreneur (venture management) as well as the company. Firstly, the Management will be responsible for the funding and general management.

Secondly, the Godparent will be an older and senior staff member that will act as lawyer for the intrapreneur to ensure that the plug will not be pulled too soon on the venture, and thirdly, the Ombudsperson that will act as a judge between the Management and the Godparent. According to Simon (1999) the ombudsperson should manage the tension between the godparent and corporation to provide venture management the necessary freedom and support to succeed and corporate management the necessary controls to avoid large losses.

Evaluators doing innovative work in hostile environments can benefit from a Godparent and Ombudsperson taking care of their ventures!

2.17 Conclusions

Adopting evaluation concepts is not an easy process as Worthen (1997: 510) agrees that "systems have most of the earmarks of classical bureaucracies and, historically, have been reasonably successful in resisting change in practices and policies." Recently strong social forces have coalesced to push many systems out from behind their barriers; change has become a much more frequent reality. However, without a tradition of planned programs, the changes that are occurring can be often little more than random adoption of faddish innovations. Perhaps the most important deficiency, which fosters such a situation, is the lack of dependable information in the performance of available products, practices, and programs. Without such information, practitioners cannot readily correct deficiencies in present pricks or intelligently select new products or practices for adoption.

Evaluation holds great promise in providing stakeholders with badly needed information, which can be used to improve the processes of human service management and entrepreneurship. This is of utmost importance, although not an easy task as Sanders (2002:253) explained. While obviously not a panacea, in line with Worthen (1997: 510), he agrees that evaluation can have a profound impact on the human services professions, including management and entrepreneurship.

Chapter 2 intended to present a theoretical foundation of evaluation as science but also as enterprise in its own right. Chapters 3 and 4 will investigate the place and propagate the extensive use of evaluation concepts in development, management, entrepreneurship and SMMEs.

Chapter 3. Evaluation and economic development

3.1 Introduction

Evaluating economic development is one of the prime targets for the Evaluation science and enterprise. Adam Smith, 1776 (in Todaro 2000:151) said: "No society can surely be flourishing and happy, of which by far the greater part of the numbers are poor and miserable." In 1979 the Nobel Prize was presented to Arthur Lewis and Theodore Schultz of University of Chicago who confirmed "Economic Development" as a separate field of study within the economic discipline (Todaro 2000:7).

According to Picciotto & Rist, (1995:ix) "Both evaluation and development have logged 50 years of practice." For Patton (2002:183) genuine collaborative approaches to development, research and evaluation require power sharing. "One of the negative connotations often associated with evaluation is that it is something done *to* people. Participatory evaluation, in contrast, involves working *with* people." According to Squire (1995:47) there will be no sustainable development if it is not done with people, therefore beneficiary assessment is increasingly recognized as a useful tool for conveying and eliciting information about the successfulness of an endeavour.

The Norwegian Agency for Development NORAD (1990:10) states that "No development projects exist in a social vacuum." According to Odwedo (2000:81) no African country has won its struggle against poverty. The whole of the African struggle is now in the third phase – "the economic struggle."

During the past decades paradigms for economic development shifted. Even views about women's roles in development have undergone fundamental changes as theoreticians and practitioners have evaluated and reassessed women's contribution to development (Moser 1995:127). The president of the World Bank (Wolfersohn 2002) said: "The World Bank will work with governments and civil society in client countries and with other donors to diagnose the gender-related barriers to and opportunities for poverty reduction and sustainable development, and will then identify and support appropriate action to reduce these barriers and capitalize on the opportunities." (Also refer to Chapter 5 for women in development).

This chapter will explore the concept of economic development and how development evaluation changed its emphasis and direction.

3.2 Economic development defined

Mohr (2001:639) defines economic development as "a complex phenomenon that involves a variety of social and economic processes." Economic development refers to the improvement of living conditions. It entails an improvement in the quality of life of the majority of the population as a result of economic growth, the reduction of inequality and the eradication of absolute poverty (Todaro 1994; Mohr 2001:635).

According to Todaro (2000:12) the ultimate purpose of development economics is to better understand 3rd World economies in order to help improve the material lives of ¾ of the global population. Development economics deals with dilemmas of hunger, poverty and ill health that plaque so much of the world's population, over and above normal institutional, social and political context. The concepts of economic development and modernisation represent implicit as well as explicit value, premises about desirable goals for achieving what Mahatma Gandhi called the "realisation of the human potential."

The concept of economic development is the economics of poor underdeveloped 3rd World nations with varying ideological orientations, diverse cultural backgrounds and very complex yet similar economic problems, that usually demand `new ideas and novel approaches, according to Todaro (2000: 7).

Economic development should embrace the three core values of sustenance, self-esteem and freedom, which are common goals, sought by individuals and societies alike. They have a bearing on the three objectives of development:

- to increase the availability and the distribution of basic life-sustaining goods (food, shelter, health and protecting);
- to raise the standard of living (better income, more goals, better educate, attention to cultural and human values); and
- to expand the range of economic and social choices available to individual and societies (Todaro 2000:18).

Development economics should strive to address central economic problems of all societies – "what, where, how, how much and for whom and goods and services should be produced as well as who actually makes or influences economic decisions and for whose benefit these decision are made" (Todaro 2000:19). There is no development if poverty, inequality and unemployment do not improve, even if real GDP is growing (Mohr 2001:641).

3.3 Sustainable development

Several countries recommitted themselves to sustainable development and Agenda 21 during the World Summit on Sustainable Development in Johannesburg (IIED 2002; World Bank 2002g; Australia 2002; Sweden 2002; USAID 2002).

Sustainable development involves people, planet and prosperity (PPP), which includes social, environmental and economic aspects. Programmes, projects and endeavours are now evaluated and measured against "multiple goals imbedded in sustainable development" (Picciotto & Rist, 1995:x). Development is growth that is sustainable and that substantially enhances the creation of employment, reduces poverty, empowers people, benefits the majority of the people, and increases their economic, political and social choices. The development concept is dynamic, emerging from a narrow concept of gross domestic product (GDP) growth rates to wider concerns about what GDP growth can do for the people (OEU 2002).

The old term 'economic growth' is too narrow. For Mohr (2001:641) "Jobless growth" becomes an enormous problem, but there can be no development if poverty, inequality and unemployment do not improve, even if real GDP is growing. Picciotto & Rist, (1995:x) are supporting this standpoint as programs are now assessed "not only in terms of the balance between their costs and benefits but also in qualitative terms for their policy relevance, environmental sustainability, and institutional development impact." For Todaro (2000:272) "this phenomenon of jobless growth or what has more formally been called the output-employment lag, continued into the 1980s, when the output growth slowed and real wages declined, particularly in Africa." This paradigm shift to outcomes and impact (what GDP can do for people) has major implications for the work of development evaluators.

Consistent with the Rio Declaration, from the 1992 United Nations Conference on Environment and Development, and the World Summit on Sustainable Development held in South Africa, the Comprehensive Development Framework also argues for evaluating the integration of environmental concerns into the design and implementation of development strategies (Essama-Nssah 2000; World Bank 2002g).

Sandstrom (1995:13) shared the following lesson: "Perhaps the most important lesson we have learned over the years is that, ultimately, development can only come from within. But external assistance - when it is used effectively - can help to supplement it." According to the World Bank (2002d) through the participatory

process people can make informed commitments, and by observing the participatory process, assessments can be made by Bank and government staff about the presence or absence of the commitment necessary to ensure sustainability.

Todaro (2000:710) explains that the causes of the African dilemma are many and varied. Some were beyond its control e.g. drought, depressed commodity prices, foreign capital withdrawal, diminished foreign aid. Others can be ascribed to poor government policies e.g. neglect of agriculture, inefficient state-owned enterprises, and lack of concern with promoting export growth. Surely rapid population growth in Africa, the highest in the world, must also be considered.

In the face of the challenge presented by the failure of past development efforts, the World Bank Group has decided in recent years to embed its vision of a world without poverty in an approach known as the *Comprehensive Development Framework* (CDF). The framework requires of development efforts to *empower* people to take charge of their destinies (Essama-Nssah 2000). This includes: "The empowerment of women and improvement of their status are important ends themselves and are essential for the achievement of sustainable development" (Ogula 2000:173).

3.4 The changing development fraternity

Todaro (2000:42) points out the following seven common characteristics of developing nations:

- Low levels of living, inequality, poor health and inadequate education.
- Low levels of productivity.
- High rates of population growth and dependency burdens.
- High and rising levels of unemployment and underemployment.
- Substantial dependence on agricultural production and exports.
- Prevalence of imperfect markets and limited information.
- Dominance, dependence, and vulnerability in international relations.

According to IPDET (2002:m1p8) there is rapid economic growth in industrialized countries while in developing countries suffer under:

- Effects of a debt crises;
- Collapse of central planning;
- Local conflicts;
- Poverty reduction efforts;
- Humanitarian and environmental concerns;
- Reduced resources;

- Increased citizen expectations; and
- Increased donor expectations.

The changing development fraternity brings new demands for development according to IPDET (2002:m1p8) that includes:

- Sound government;
- Private sector involvement;
- Participation;
- Equity; and
- Environmental sustainability.

3.5 The changing concept of development and new economics

Over the decades the concept and definition of development changed according to IPDET (2002:m1p9) to include the following Objectives, Approaches and Disciplines:

Figure 3.1: The changing concept of development

Decades	Objectives	Approaches	Discipline
Fifties	Reconstruction	Tech. Assistance	Engineering
Sixties	Growth	Projects	Finance
Seventies	Basic Needs	Sector Investment	Planning
Eighties	Adjustment	Adjustment Loans	Neoclassical
Nineties	Capacity-Building	Country Assistance	Multidisciplinary

According to IPDET (2002:m1p6) the definition of development should be formulated within a specific Development Context. "Evaluation in developed countries is not easily transferable to developing countries. Developing countries may lack data and resources. Even in the best of circumstances, it is not easy to design studies to measure outcomes. It is difficult to collect data over time and results are not always quantifiable."

For Todaro (2000:14) the experience of the 1950s and 1960s, when many Third World nations did realize their economic growth-targets, but the levels of living of the masses of people remained for the most part unchanged, signalled that something was very wrong with a narrow concept of development.

Persaud (2001:1) states that New Economics are:

- Anchored in human rights paradigm; dignity, equality and fundamental freedoms;
- Mandate for sustainable development; and
- Legal duties, social responsibilities and accountability particularly for business as the engines of economic development.

According to Eloff (2001:1) the nature of employment is changing. Hierarchical organisations are being replaced by networked learning organisations, and jobs have shifted dramatically. For example in the 1970's, 57% of the American population produced all the food for that country. This figure is less than 2% today.

Nowadays the role of the entrepreneur is stressed to bring about development. Hisrich (1998:9) is of the opinion "To an economist, an entrepreneur is one who brings resources, labour, materials, and other assets into combinations that make their value greater than before."

3.6 Evaluation, development and judgement

Major issues of development such as poverty, inequality, unemployment, population growth, rural stagnation and environmental decay are examples of the value **judgement** that this improvement or elimination is desirable and good. In development economics one's underlying assumptions or value premises must always be made clear (Todaro 2000:12).

Concepts such as economic and social equality, the elimination of poverty, universal education, rising levels of living, national independency, modernisation of institutions, political and economic participants, grass roots democracy, self-reliance and personal fulfilment all are to be considered in terms of **value judgments** of what is good and what not. Opposite values e.g. sanctity of private property and the right of individuals to accumulate unlimited personal wealth, the right to lead or to follow also comes to the fore in these considerations (Todaro 2000:12).

For Worthen (1997:119) the expertise-oriented approach to evaluation is probably the oldest and most widely used, and depends primarily upon professional expertise to judge an institution, programme, project, or activity.

Development Evaluation Approaches had to change according to IPDET (2002:m1p20) to include:

- Stakeholder analysis;
- Rapid assessments;

- Participatory evaluations; and
- Evaluation synthesis.

For Essama-Nssah (2000) there is an intimate relationship between *evaluation* and *development* to the extent that the very definition of development involves an "evaluative judgement."

3.7 Development evaluation versus classical evaluation

IPDET (2002:m1p6) distinguishes between Classic and Development evaluation: Classic evaluation includes concepts, cause-effect, experimentation and probability sampling. It describes program implementation and assesses its impact, and is:

- Often conducted by outsiders;
- Often looks backwards; and
- Judgment is made on success or failure.

Development evaluation:

- Focuses on performance indicators,
- Concepts, relevance, sustainability,
- Involves stakeholders,
- Emphasizes learning,
- Fast and flexible, current and future orientation, and
- Builds local capacity.

In June 1992, the second United Nations Conference on Environment and Development (UNCED) Earth Summit was held in Rio de Janeiro. The first meeting had been held in Stockholm in 1972 (Todaro 2000:706). These meetings provided valuable inputs into the Millennium 2000 Development Goals.

3.8 Millennium 2000 Development Goals

In the Millennium Summit website (www.developmentgoals.org) the Millennium Summit of Sept 2000 the states of the United Nations reaffirmed their commitment to working toward a world in which sustaining development and eliminating poverty would have the highest priority. The Millennium Development Goals grew out of the agreements and resolutions of world conferences organized by the United Nations in the past decade. The goals have been commonly accepted as a framework for measuring development progress. The goals focus the efforts of the world community on achieving significant, measurable improvements in people's lives.

Each of the eight Millennium 2000 Development Goals decided on at the 2000 Millennium Summit (www.developmentgoals.org) has identified a development issue:

1. Eradicate poverty and hunger.
2. Achieve universal primary education.
3. Promote gender equality and empower women.
4. Reduce child mortality.
5. Improve maternal health.
6. Combat HIV/Aids, malaria and other diseases.
7. Ensure environmental sustainability.
8. Develop global partnership for development (www.developmentgoals.org).

The Millennium Development Goals established yardsticks for measuring results, not just for developing countries, but also for rich countries that help to fund development programs and for the multilateral institutions that help countries implement them. The first seven goals are mutually reinforcing and are directed at reducing poverty in all its forms. The last goal-global partnership for development is about the means to achieve the first seven. Many of the poorest countries will need additional assistance and must look to the rich countries to provide it. Countries that are poor and heavily indebted will need further help in reducing their debt burdens, and all countries will benefit if trade barriers are lowered, allowing a freer exchange of goods and services.

For the poorest countries many of the goals seem far out of reach. Even in better-off countries there may be regions or groups that lag behind. So countries need to set their own goals and work to ensure that poor people are included in the benefits of development (www.developmentgoals.org).

The International Development Evaluation Association, IDEAS (2003:4) plans to do a short series of workshops on Evaluating the Millennium Development Goals, as well as the indicators they can use.

3.9 **The African Union and NEPAD** (New Partnership for Africa's Development)

Despite Africa's past efforts for economic development and poverty eradication as top priorities, the overall impact of the many programmes and projects that have been initiated in Africa to this end is questionable. In Africa, 340 million people, or half the population, live on less than US$1 per day (NEPAD 2002). The Mortality rate of children under 5 years of age is 140 per 1000, and life expectancy at birth is only 54 years. Only 58% of the population have access to safe water. The rate of illiteracy for

people over 15 is 41% (OEU 2002). Most African countries are still poor and "the entire African landscape is littered with failed projects" (Odwedo 2000:81).

According to the website of the SA Department of Foreign Affairs (www.dfa.gov.za) the "African Heads of State at the Extraordinary OAU Summit in Sirte, Libya on 2 March 2001 declared the establishment of the African Union, based on the unanimous will of the member states of the OAU. Related to the birth of the African Union, however being implemented as a completely different initiative on the African Continent, is the 'New African Initiative', which was unanimously adopted by the Lusaka Summit on 11 July 2001. The New African Initiative represents a merger between the Millennium Partnership for the African Recovery Programme (MAP) and the OMEGA Plan." NEPAD is a merger of the Millennium Partnership for the African Recovery Programme (MAP) and the OMEGA Plan (NEPAD 2002).

The development goals of Nepad are: (NEPAD 2002).

- To promote accelerated growth and sustainable development;
- To eradicate widespread and severe poverty; and
- To halt the marginalisation of Africa in the globalisation process.

Nepad is described as:

- a vision and programme of action for redeveloping the African continent;
- a plan that has been conceived and developed by African leaders;
- a comprehensive integrated development plan that addresses key social, economic and political priorities in a coherent and balanced manner;
- a commitment that African leaders are making to African people and to the a commitment African leaders are making to accelerate the integration of the African continent into the global economy;
- a framework for a new partnership with the rest of the world; and
- a call to the rest of the world to partner Africa in her own development on the basis of her own agenda and programme of action (NEPAD 2002).

Todaro (2002:59) pointed out that primary commodities form the main exports from developing to developed countries. These primary commodity exports "account for over 70% of exports." The unequal strengths are manifested not only in the "dominant power of rich nations to control the pattern of international trade but also in their ability often to dictate the terms whereby technology, foreign aid, and private capital are transferred to developing countries" (Todaro 2000:61).

Zadek (2002:2) agrees with this when he states "September 11 has starkly revealed what many already knew – that there is enormous anger and frustration across the world at how globalization is playing itself out. It was notable that contributors from outside the North Atlantic community highlighted the considerable support around the world for the view that the attack on the World Trade Centre was understandable, although unacceptable."

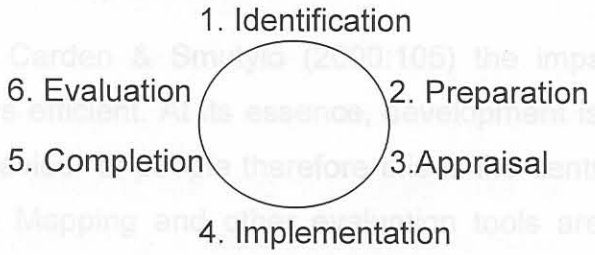
Public opinion surveys, for example in Brazil and South Africa, revealed support for the view that the US and the global business community need to understand the implications of the despair that communities feel in the face of globalization. Such views are indicative that for many this is not a "Muslim issue", but one that reflects the facts of how globalizing business and US foreign policy are undermining and disempowering people and communities (Zadek 2002:2).

In line with the above Eloff (2001:1) estimated that the top 500 multinational corporations generate, in total, revenue of $11trillion. This is disruptive and threatening, and developing countries are becoming increasingly marginalized.

3.10 The place of evaluation in development

Scheifer (2000:139) warns that international funders require greater accountability. The Project Cycle is used by developers, Development Finance Institutions (DFIs) and governments to execute large endeavours. "Projects go through a number of clearly defined stages in the process of their establishment, i.e. identification, preparations, appraisal, implementation and monitoring and ex post *evaluation*" (Odwedo 2000:81). "The project cycle includes *evaluation*" before the cycle ends according to Patel & Russon (2000:125).

Figure 3.2: The project cycle



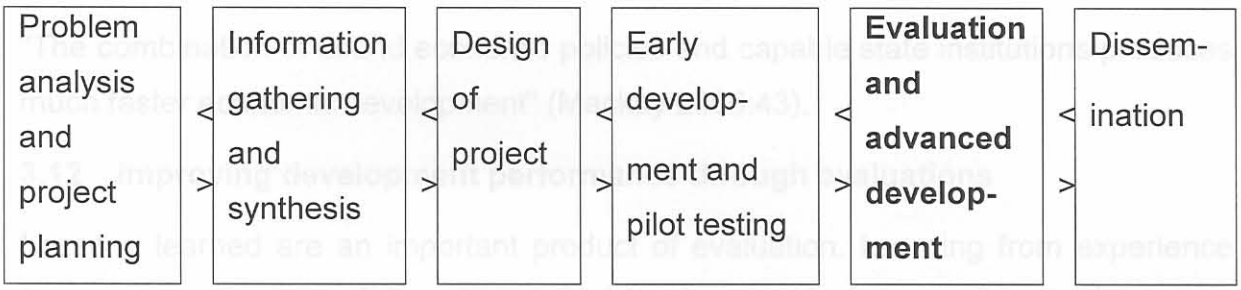
Evaluation is placed as the final assessment of how well a project/program achieved its objectives stated in the other elements of the cycle (ZOPP 1999). Ongoing evaluation (during project implementation) is referred to as 'review' and is linked closely with monitoring.

Evaluators have shown a long-standing interest in the nature and extent of impact (Kirkhart 2000:5). For each of the interventions in the project cycle quantitative indicators can be developed (Moser 1995:128).

For Lumsdaine & Lumsdaine (1995:223) evaluation has a place as a continuous part of judgement and critical thinking that stems from left-brain thinking. "Creative idea evaluation is in essence a second round of brainstorming" and a continuous process of deferring judgement and a key process involved in engineering.

De Vos (2000:385) place Evaluation and Advanced Development fifth in her Design and Development (D&D) and Intervention Research framework of six phases:

Figure 3.3: Evaluation within a research framework



It is vital for De Vos (2000:365) to know the place of evaluation and to understand the concepts, theory and practice of evaluation, as evaluations of individuals; of businesses and of projects are "an ever-present fact of live."

3.11 Inefficiency of development performance

Evaluators known worldwide such as Picciotto & Rist (1995:x) notify that the mounting dissatisfaction with the effectiveness of development assistance programs underlies a growing demand for monitoring and evaluation focused on critical performance indicators, as well as pressure for quicker feedback of evaluation results and dissemination of "best practice."

According to Earl, Carden & Smutylo (2000:105) the impact of development on people is not always efficient. At its essence, development is accomplished through changes in the behaviour of people therefore this is the central concept of Outcome Mapping. Outcome Mapping and other evaluation tools are designed to increase development efficiency and effectiveness.

It is a general problem in development work that programme objectives are often stated in over-ambitious terms, with a subsequent risk of quite useful projects being labelled as 'failures' in terms of their initial objectives. Development assistance

workers are very sensitive to problems this may cause with donors according to Patel & Russon (2000:125).

In the post communist era there is a need to redefine the roles of *state* and *market*. Government must focus on what is essential and on what they do best. As the same time, a healthy private sector reduces the burden on government; it broadens participation in the running of an economy; it attracts savings – domestic and foreign – to sound investment; and it promotes growth and jobs (Sandstrom, 1995:13). The revolution in economic management in the developing countries is well underway, but it is still far from complete. "We must do more to nurture private-sector growth because that will enable more countries to become competitive in the global economy – and to reduce poverty" (Sandstrom, 1995:13).

"The combination of sound economic policies and capable state institutions produces much faster economic development" (Mackay 2000:43).

3.12 Improving development performance through evaluations

Lessons learned are an important product of evaluation. Learning from experience (successes as well as failures) and applying lessons from evaluation, is the key to improving development performance – and to helping as many people as possible improve the quality of their lives as quickly as possible. That is a common goal we all share. It is also the ultimate result by which we must expect to be judged, and by which we must judge ourselves (Sandstrom 1995:12). Business motivation will act differently. “Faced with impoverished customers, degraded environments, failing political systems, and unravelling societies, it will be increasingly difficult for corporations to do business (Persaud 2001:2).

Squire (1995:44) discussed the necessary ingredients for rigorous evaluation of poverty alleviation programs in developing countries. Evaluation should confront such poverty-specific issues as empowerment of the poor, beneficiary participation in design, implementation of programs, and beneficiary assessments (Squire 1995:44).

There are several reasons for the increased use of evaluators to improve development performance e.g. a recognition that the major use of evaluation results was for purposes of program improvement, and the knowledge that the evaluation itself could be an "intervention and instrument of social change" (Caracelli 2000:103).

A change in recent years has been an "increasing willingness to discuss and address corruption publicly — corruption is generally no longer viewed as a taboo subject."

There is awareness that corruption within government acts as a "tax on development, that it is an impediment to the efficient operation of markets, and that it frustrates the development of a service-oriented culture within a country's civil service" (Mackay 2000:43). In response to a complex and rapidly changing development agenda, the World Bank has adapted and expanded its toolkit of assistance. New lending instruments, advisory and analytical tools, and partnership arrangements have been crafted to address the myriad needs and preferences of borrowers and to meet the challenge of the Bank's mission of poverty reduction (World Bank 2002c).

Some of the main barriers to Evaluation Capacity are "Lack of demand, ownership and support" (IPDET 2002:m12p56). From an entrepreneurial perspective Wickham (2001:5) acknowledges that "an individual take charge of the project."

The main focus is on efforts to strengthen the Monitoring and Evaluation (M&E) functions of governments, but there are also many important implications for civil society, and for its many actual or potential roles in M&E (Mackay 2000:43). In the planning stage, the Logical Framework can improve the identification, preparation and performance appraisal process by clarifying the project design and making it transparent to both borrower and lender (TEAM Technologies 1994:2). In response to unfavourable assessments of project performance in a number of sectors, the World Bank's Economic Development Institute (EDI) joined forces with Team Technologies, Inc., to develop a computer-based approach to upgrading managerial skills, especially team-based and Logframe methods (EDI 1995:2).

The International Development Evaluation Association, IDEAS (2003:2) focuses on the evaluation needs of developing countries and transition economies, as well as for demands for accountability.

3.13 Applying the fundamentals of evaluation to poverty alleviation

According to Squire (1995:44) the "fundamentals of evaluation" should be applied to poverty alleviation programmes, such as empowerment of the poor and beneficiary participation (Squire 1995:44). "Poverty and unemployment is a real threat to the economic and social survival of the entire African Continent. The real development challenge for most African countries is therefore how to get out of this quagmire" (Odwedo 2000:81).

Zadek (2002, 3) is of the opinion that the September 11 events have highlighted the need for those advocating corporate responsibility to honestly face the challenge of

what can and cannot achieved through its current forms. In so far as poverty and inequality have some bearing on those events. Corporate responsibility will have to go a lot further than the isolated good practices of individual companies if it is to make a serious contribution in the future.

The scope of development economies, in addition to being concerned with the efficient allocation of existing scarce or (idle) productive resources and with their sustained growth over time, also deals with economic, social, political and institutional mechanisms (public and private) and large scale improvements of living for the masses of poverty–stricken, malnourished and illiterate people of Africa, Asia and Latin America. In these 3rd world countries most commodity and resource markets are highly imperfect, consumers and producers have limited information, major structural changes are taking place in both the society and the economy and dis-equilibrium situations often prevail (Todaro 2000:8).

How should program impact be measured? "Program impact should be judged against what would have happened in the program's absence." Thus, evaluation requires specification of a counterfactual. And since the counterfactual is not observed, the technique for specifying requires careful thought (Squire 1995:45).

It is important to evaluate and disseminate developmental discrepancies. Todaro (2000:497) points out that the world has become a global financial village, but the poorest 20% of the world's people have benefited little from the increased globalisation of economies, because in world trade their share is only 1%.

It is not so easy to apply evaluation fundamentals to all cultures. In a study on evaluation standards done by Patel and Russon (2000:125) the participants thought that Africans have a different concept of time than Western audiences: E.g. in Africa, the "way in which a thing is done" is often considered more important than getting it done "on time and within the budget." "Timeliness" should be modified to make it more relevant to Malta and India. "To insist on holding someone to an officially stated deadline is viewed as nit-picking and unreasonable." The injunction to disseminate reports to intended users caused participants to raise the question, "Who are the intended users?" (Patel & Russon 2000:125).

What constitutes a program for the purpose of evaluation? An evaluation focuses exclusively on inputs (budgets costs, for example) and outputs (reflecting

intermediate objectives such as students' performance) might fail to account for the often-critical role of other factors (Squire 1995:45).

3.14 The World Bank policy on evaluating development

The World Bank is strengthening its evaluation measures: from intensified scrutiny of all the projects in the more broadly – establishing an independent inspection panel (Sandstrom, 1995:14). The World Bank's early focus on projects has evolved into a more comprehensive approach focused on policies, strategies, and institutions that influence the success of economic programs and projects (Choksi 1995:15).

"Since the Beijing meetings, which is when I really came in, many women's leaders were keen to point out to me that the Bank was not doing the job that it should and that, in fact, on gender issues, internally in our institution we were not giving an adequate recognition to the quality of women that we had in our own institution. That was a pretty bad signal for what we were doing on the outside" (Wolfersohn 2002).

A recent overview of gender issues in the World bank's lending, for instance, evaluates 615 projects in terms of their "WID / gender-related actions," using a rating system that covers intended gender-related actions at project appraisal but does not reflect what was achieved (Moser 1995:130). Michael Bamberger of the World Bank highlighted the relevance of Social Assessment (SA) at every stage of the project cycle and went on to explain that SAs are often conducted by local NGOs, women's organizations, local consulting companies, local consultants with international support, international consultants, and very rarely by implementing agencies of projects (Bamberger 2000). The Comprehensive Development Framework and the Poverty Reduction Strategy initiative are designed to centre the Bank's mission on poverty reduction through support of a country-driven, results-oriented framework jointly owned by the public, private, and voluntary sectors (World Bank 2002b).

The International Development Goals set by the Development Assistance Committee (DAC) focus on: *income*, *education*, *health* and *environment*. Evaluating public policy requires an assessment of the likely responses of the socio-economic system to the policy. This responsiveness depends on the *incentive properties* of the policy as revealed by the distribution of gains and losses among individuals and socio-economic groups. This consideration must govern the design of the *counterfactual*. Given that the appraisal of the aggregate merit of a state of affairs requires *value judgments* (Essama-Nssah 2000).

"So I set about trying to help change the culture and most particularly to align myself with the people in the organization who understood that we could not do our job unless we mainstreamed gender. That it simply was not possible not to be aware of the inhibitions placed on the development process by an inadequacy of attention to gender issues" (Wolfersohn 2002).

3.15 Evaluation, beneficiary assessment and participation

According to IPDET (2002:m3p13) "Local people know better how to get out of their own mess because they live in it." The World Bank (2002d) agrees with this standpoint when asking the following questions:

- How can experts positioned outside the local system figure out what the people in it are willing and able to change?
- More important, how can they know the speed and depth with which the local stakeholders are willing to make these changes?

The World Bank (2002d) comes to the following conclusion: If behavioural and organizational changes are necessary, then the people whose behaviour has to change should create the change and commit themselves to it. For Bamberger (2002:13) this is a sensitive process as "many indigenous people live in remote areas and do not participate actively in local (modern) political processes, their views are often not captured."

For Todaro (2000:439) it is important that community-based environmental programmes work closely with women because their own day-to-day activities may largely determine patterns of resource use and their ability to meet the needs of their families is dependent on the sustainable management of water and fuel supplies.

According to the World Bank (2002d) "Participation is a process through which stakeholders influence and share control over development initiatives and the decisions and resources which affect them." Participation is claimed to improve project implementation. The time allowed for consultations has often been insufficient for the orientation and involvement and participation of the local organisations. Another problem is that many of the local organisations do not fully understand the need for more rigorous quantitative methods to ensure that observed problems for changes can be attributed to the programs.

IPDET (2002:m3p14) states that Participatory Evaluation has many benefits such as:

- Increased credibility of results;

- Results are more likely to be used;
- Increased buy-in, less resistance;
- Increased sustainability;
- A tool for empowering the affected populations; and
- More flexibility in approaches.

The concept beneficiary assessment is used for participant observation, qualitative interviewing, and related techniques to "gauge beneficiary values and preferences" (Squire 1995:49). Beneficiary assessment is similar to the concept 'consumer satisfaction'. The method typically involves "participants observation and intensive interviewing" (Squire 1995:49).

3.16 Ownership of development programmes

Strong country *ownership* of strategies, policies and programs is recognized through evaluations as a key determinant of development effectiveness. This is necessary because development entails a transformation in *the way people think and behave*, and such a change cannot be imposed, explains Essama-Nssah (2000).

According to the *World Bank Participation Sourcebook* (World Bank 2002d) participation is worthless without commitment. "The absence of sufficient commitment in many of the projects the Bank finances comes, we believe, mainly from the external expert stance, in which small groups of experts ask the other stakeholders to commit themselves to a project the experts have designed. Even if these stakeholders do so, they often have not learned enough to understand fully the commitment they are being asked to make. Nor have they learned enough to judge their ability individually and collectively to fulfil it. We need to be clear that commitments made under such circumstances cannot be relied on."

True country ownership also requires *credible participatory mechanisms* involving key stakeholders at different levels of government, from civil society and from the private sector. *Inclusion* and *consensus building* are important factors to promote a sense of fairness about the process of development and minimize conflict related to the distribution of gains and burdens (Essama-Nssah 2000).

The key process factor, especially in poverty alleviation programs, is "the degree of participation by intended beneficiaries." (Squire 1995:48). ODA's WID marker goes beyond the identification of women as beneficiaries to measure women as intended project participants (Moser 1995:130). As the capacity of poor people, and women, is

strengthened and their voices begin to be heard, "they become *clients* who are capable of demanding and paying for goods and services from government and private sector agencies" (World Bank 2002d). For many years the acronym ZOPP has stood for Objectives-oriented Project Planning. It has become GTZ's (German technical cooperation) trademark for participative planning procedures geared to the needs of partners and target groups (ZOPP 1999).

To have useful participation, participants need to understand the objectives and outcomes of an endeavour. Worthen (1997:92) states that discussions of appropriate objectives with the community being served have given objectives-oriented evaluation the appeal of face validity. "The program is, after all, merely being held accountable for what its designers said it was going to accomplish, and that is obviously legitimate."

Bamberger (2002:13) warns that many development programmes may have impacts, often potentially negative, on indigenous peoples that are often not captured by conventional impact evaluation methodologies. One of the major challenges is that indigenous people often have very different criteria for thinking about the potential consequences of development interventions and also different ways of communicating their concerns. Land and natural resources have spiritual values and communities have an obligation to conserve them for future generations. They are not viewed simply as productive resources.

During research interviews, the actual interactions that resulted from the door-to-door contacts turned out to be significantly different from the way the door-to-door process was designed and conceptualised. These findings, which, emerged from interviews and observations, had important implications for staff recruitment and training, and for how much time needed to be allocated to cover a neighbourhood in order to obtain real participation and ownership (Patton 2002:160).

3.17 Evaluating development effectiveness

To evaluate effectiveness is to assess whether an institution or business is 'doing the right things'. It is wider than efficiency, where it is monitored whether an institution or business is 'doing the things right'.

The 2001 Annual Review of Development Effectiveness, ARDE of the Operations Evaluation Department of the World Bank (2002b) found that there has been broad improvement in economic and sector work as it has become more participatory,

client-oriented, and results-focused. But there is room for improvement in the poverty focus of these instruments, as well as in their quality and impact in poor-performing countries (World Bank 2002b). Countries with fundamentalist regimes suffer economically because women are not allowed to participate (World Bank 2001). For Todaro (2000:19) it is not so easy to evaluate economic development effectiveness as the economy should be viewed as an interdependent social system in which "economic and non-economic forces are continually interacting in ways that are at times self-reinforcing and at other times contradictory."

Schnoes et al (2000:100) came to the conclusion that, while collaboration has proved very constructive, the time required and level of resources needed for full consultation and orientation probably need to be increased. Collaboration is also central to stakeholder-based evaluation, as stakeholders and evaluators work together to develop and finalize instruments and procedures, produce recommendations, and make decisions throughout the evaluation process (Schnoes et al 2000: 55).

Project outcomes could be regressed on a range of control variables and on measures of the "intensity and frequency of beneficiary assessments" (Squire 1995:51). As development is essentially about people relating to each other and their environment, the focus of Outcome Mapping is on people and organizations. The originality of the methodology is its shift away from assessing the products of a program (e.g., policy relevance, poverty alleviation, reduced conflict) to a focus on the changes in the behaviours, relationships, actions and/or activities of the people and organizations with whom a development program works (Earl, Carden & Smutylo 2000:105).

NGOs undertake substantive reviews and evaluations of government performance in Bangalore, India, since 1993. The surveys focus on the services provided by the municipal government, such as water and electricity, garbage collection, and hospitals. Ordinary citizens are asked about their level of satisfaction with these public services, which aspects are most or least satisfactory, whether government staff is helpful, and whether bribes have to be paid to officials to obtain these services. The results of the surveys have been widely published, with lively press coverage (Mackay 2000:43).

The wide dissemination of evaluation reports is a means of civil society groups' participation for effectiveness. In Uganda, monthly transfers of government funds to schools are reported in the press and on radio, and are displayed on public notice

boards in schools and district government centres. This is a useful step in encouraging a fuller flow of information to the ultimate beneficiaries, according to Mackay (2000:43).

Participatory methods for intended project beneficiaries can be used to obtain beneficiaries' perspectives on the impacts of the projects and policies once they become operational (Schnoes et al 2000:98). Civil society can play an important role by inputting beneficiary views on government service delivery. Ordinary citizens are the ultimate beneficiaries of most government services, and their level of satisfaction (or dissatisfaction) with these services provides an important input to any evaluation of government's performance in delivering them. A number of African governments regularly conduct service delivery surveys, also known as beneficiary surveys to evaluate development effectiveness (Mackay 2000:43).

3.18 Conclusions

According to Todaro (2000:151) the "unfinished business of the 21st century is the eradication of poverty." Despite this, evaluation science and enterprise principles and practice proved to be useful in improving economic development over the years. Caracelli (2000:103) even go so far to note that the increased use of evaluators to improve development performance and effectiveness e.g. a recognition that the major use of evaluation results was for purposes of programme improvement, and the knowledge that the evaluation itself could be an "intervention and instrument of social change." The most critical factor is of course that evaluations prove to be useful, warns Bastoe (2000:117).

For evaluation to reach success in improving economic development takes time. Orientation and involvement of the local organisations are necessary as "Many of the national NGOs and women's organisations that would like to participate in the studies are not familiar with the kinds of policies and programs being evaluated or with the research methods used by World Bank economists" according to Schnoes et al (2000:100).

The economic and social dimensions are important according to Wickham (2001:7) for management and entrepreneurship. The entrepreneur is an individual who lives and functions within a social setting. Although the importance of higher levels of entrepreneurship for the well being of South African society will be emphasised in the next chapter, it is important to note that the entrepreneurs seldom initiate business

ventures with the primary aim of benefiting to the society in which they live. Entrepreneurs tend to be people who recognise business opportunities and marshal the necessary resources to exploit business opportunities for personal gain, according to van Aardt (2000:3). This is an unfortunate but real attitude that will have to be changed with the introduction and reality of AccountAbility and Evaluation concepts. Eloff (2001:2) states that business has to "go beyond its traditional role of maximising shareholder value, employing people, paying taxes and keeping within law... business is emerging as a principal engine of growth and development." Scheifer (2000:139) warns that international funders require greater accountability.

The launch of the International Development Evaluation Association, IDEAS (2003:1) on 11 September 2002 in Beijing, one year after the 11 September 2001 World Trade Centre disaster, was a "landmark for development evaluation." The new association fills a gap in the international evaluation architecture regarding developing countries.

The success that evaluation as science and enterprise achieved in economic development and development programmes as illustrated in Chapter 3 will in Chapter 4 be extended to enhance the effectiveness of business management and entrepreneurship.

Chapter 4. Evaluation, management and entrepreneurship

4.1 Introduction

To move from the economic development emphasis of Chapter 3 to the management and entrepreneurship emphasis of Chapter 4, Wickham (2001:6) provides a useful linkage by acknowledging: "Economists have long recognised the importance of the entrepreneur." Even in this discipline, known for its rigour, the entrepreneur remains an illusive beast. Entrepreneurs are however more interested in the growth and development of their own enterprises, and according to Crijns (2002), in entrepreneurship stable growth means: "Growing step by step, without heart attacks." The development of Public Private Partnerships (PPPs) to handle huge projects brought the public and private sectors together as partners in development. After the World Summit on Sustainable Development (WSSD) the acronym PPP also became People, Planet and Prosperity (World Bank 2002f).

Evaluation is also crucial for management and entrepreneurship as its aim is formulated by IPDET (2002:m1p18): "to determine the relevance of the objectives, efficiency, effectiveness, impact and sustainability so as to incorporate lessons learned into the decision-making process." Ramsden (2001:1) warns that the following phrase is outdated and dangerous: "The role of well run companies is to make profits, not save the planet." Eloff (2001:2) agrees that companies are increasingly required to be "good corporate citizens with emphasis on corporate social investment and responsibility."

For many decades Research and Development (R&D) were the affection of many organisations. Similarly Evaluation and Development (E&D) need to become an important buzzword in development. This should not be too difficult as evaluations are necessary to maximise development outcomes and impacts for all inhabitants, while accountable entrepreneurship and responsive management also aim to maximise development outcomes, impacts and the well being of people.

Evaluation thoughts may change the way managers and entrepreneurs think. According to Dollinger (1999:69) changes are not always negative as he describes "change as the most important thing to notice about the business environment" and for Wickham (2001: 211) there is always the potential to create new value. This chapter will point out how evaluation can bring 'new value' to management and entrepreneurship.

According to IPDET (2002:m2p5) Government officials; Parliament; Programme managers and staff; Citizens; Businesses; NGOs; Civil society; Donors; and Participants should use and benefit from evaluation. The International Development Evaluation Association, IDEAS (2003:3) newsletter explored the demands for accountability among the leadership of African countries and stressed that qualitative evaluative criteria are essential. For Shay (2001:1) "Accountability is at the heart of NGO's credibility and ability to function, ...trust and credibility are two of the foundations for any organisation to be effective."

This chapter will propagate the use of evaluation concepts and constructs in management and entrepreneurship, and explain why managers and entrepreneurs should take note of evaluation as science and as enterprise.

4.2 Entrepreneurial versus managerial concepts

Wickham (2001:5) takes three broad approaches when dealing with entrepreneurship. The first defines the entrepreneur as a manager undertaking particular tasks. The second regards the entrepreneur in economic terms and concentrates on the function they have in facilitating economic processes. The third regards the entrepreneur in psychological terms as and individual with a particular personality.

Although the entrepreneur is usually associated with the management of a business, there is a difference between the entrepreneur and the business manager according to van Aardt, (2000:7) in that: "Entrepreneurs, by definition, conceive of, gather the sources for, organize, and run private businesses. They tend to be risk takers who are strongly motivated to achieve their goals, including profits. Management, by contrast, involves organizing and running all kinds of organizations, but is usually not concerned with conceiving or owning them. Managers, therefore, are high-level employees who identify more closely with other employees than with the owners."

The vast majority of organisations offer a role for a single, most senior manager, according to Wickham (2001:12). Businesses often use the term the *managing director* or *president*. Generically, the role is referred to as the *chief executive officer* (CEO) while all organisations have a chief executive officer of some description, "not all are led by someone we would recognise as an entrepreneur."

An entrepreneur is defined by Van Vuuren & Nieman (1999) as "A person who sees an opportunity in the market, gathers resources and creates and grows a business

venture to satisfy these needs. He/she takes the risk of the venture and is rewarded with profit if it succeeds." An entrepreneurial venture/mindset is defined by Van Vuuren & Nieman (1999) as "one that constantly seeks growth, innovation and has strategic objectives."

On a lighter note Wickham (2001:6) compares the many definitions of an entrepreneur with a character in Milne's Winnie-the-Pooh, described as: "...a rather large important animal. He has been hunted by many individuals using various trapping devices, but no one so far has succeeded in capturing him. All who claims to have caught sight of him report that that he is enormous, but disagree on his particulars."

According to Mayne (1999:8) governments are trying to create good managers in the pubic service by trying to turn their public servants into managers rather than administrators, adopting many characteristics and values from the private sector. The term "manager" is used here to identify a management style that expects and encourages individuals to use the resources and authorities entrusted to them to innovatively achieve agreed upon results. The term "Administrators" is used to describe a management style that is more concerned about following proper procedures, that does not encourage innovation, and rewards caution.

Wickham (2001:6) defines *Entrepreneurship* as what the entrepreneur does. *Entrepreneurial* is an adjective describing how the entrepreneur undertakes what he or she does. The *Entrepreneurial process* in which the entrepreneur engages is the means through which new value is created as a result of the project: the *entrepreneurial venture.*

4.3 Similarities between evaluation and entrepreneurial concepts

According to Crijns (2002), Cantillon (1755) already defined an entrepreneur in 1755 as: "An entrepreneur is someone who exercises business *'judgement'* in the face of uncertainty" From Jennings (1994: 28-29,63,65,147); Dollinger (1999:4), Hisrich & Peters (1998:9) and Wickham (2001:26-29) the following definition of an entrepreneur is developed: An entrepreneur is someone, who in the face of uncertainty, exercises business *'judgement'* in perceiving an idea, based on a need or gap in the market, transforming it into a business opportunity, creating an organisation with strategic goals to pursue it and to make a profit, using leadership skills. The entrepreneur innovates through new combinations to create new value in terms of service,

products or processes, thus promoting economic growth, with moderate risk-taking and through co-ordination of productive resources.

The definition of evaluation that integrates entrepreneurial endeavours is the one of Bastoe (2000:117) who defines evaluation as "careful retrospective assessment of the merit, worth, and value of administration, output, and outcome of interventions, which is intended to play a role in future, practical action situations". For Patton (1997:23) evaluators make *'judgements'* and inform decision-makers about the future.

From the above concepts, for both Evaluation and Entrepreneurship "Judgement" and "Value" are thus of crucial importance.

4.4 Entrepreneurship creating economic growth and development

Timmons (1999:4) finds it amazing that over 95% the economic wealth in America today has been created by the E-Generation of revolutionaries since 1980 and one of every three households includes someone who has had a primary role in a new emerging business.

Van Aardt (2000:3) noted that society is the social and physical context in which people establish or acquire businesses. Entrepreneurship is important for societies to generate economic growth and ensure economic and socio-economic development. In this regard, Van Aardt (2000:3) quoted Porter (1990) who noted in his book, '*The competitive advantage of nations',* that "entrepreneurship is at the heart of economic advantage." This means that a large pool of entrepreneurs is required to benefit a society by increasing the size of the economic pie.

Timmons (1999:4) describes entrepreneurship as "America's Secret Economic weapon" and presents examples of how Apple Computer, Lotus Development Corporation, Dell Computer, Gateway 2000, Microsoft, and others caused disarray for the giant IBM. IBM's staff size shrank by nearly half and its stock plummeted. Timmons (1999:4) noted that IBM had become a "victim of the entrepreneurial revolution."

4.5 Evaluation of development projects versus SMME endeavours

Evaluators mostly evaluate projects. According to the Norwegian aid organisation NORAD, (1990:10) the concept "project" is often used to signify "all types of development interventions" such as entrepreneurial endeavours, business ventures, projects, programmes, studies, etc. For developers a "project is a discrete package of investments, policies, institutional and other actions designed to achieve specific

development objectives within a designed period" (Odwedo 2000:81). Entrepreneurs in the construction sector are involved in projects that are subject to all kinds of evaluation.

According to Wickham (2001:5) the word "entrepreneur" is widely used, both in everyday conversation and as a technical term in management and economics. Its origin lies in seventeenth-century France, where an entrepreneur was an individual commissioned to undertake a particular commercial project.

"Entrepreneurship is the dynamic process of creating incremental wealth", according to Hisrich (1998:9). The wealth is created by individuals who assume the major risks in terms of equity, time, and career commitment or provide value for some product or service. The product or service may or may not be new or unique but the entrepreneur must somehow infuse value by receiving and locating the necessary skills and resources (Hisrich, 1998:9).

In a world of shrinking investment and aid flows, there is a heightened emphasis on "securing value-for-money from the aid dollar." This is closely related to the growing "twin pressures for debt relief and for accountability" (Mackay 2000:43). Entrepreneurs need to learn how to plan for, how to survive during and how to prosper after evaluations as it is not a question 'if' the evaluation will take place, but '*when, how and how many*?' "The issue of evaluation, then, is not *whether*...but rather *how* it will be evaluated" (De Vos 2000:365). "The question is no longer, *can* we do evaluations, but rather, why aren't *more* of them done?" agrees Bastoe (2000:117). For Patton (2002:187) "evaluation focuses on *helping people learn to think and reason evaluatively*." Evaluative reasoning is thus crucial for projects as well as business endeavours to survive in a competitive environment.

4.6 The role of evaluators in entrepreneurship and management

According to IPDET (2002:12-1) "development and development evaluation is becoming a pluralistic enterprise." Sanders (2002:257) asks the questions: "How many publishers rush to market with untested curricula? How many manufacturers only test their products out of fear of litigation? If it weren't for the FDA, how many pharmaceuticals would hit the market without adequate testing? Or spot checks of meat packers by the USDA?.. How many of our civil right would be in jeopardy if it weren't for the ACLU or NAACP?"

Evaluators might find it easier to work with entrepreneurs than with managers. The following distinction that Wickham (2001:9) makes between a manager and entrepreneur reinforce this statement: "A more meaningful, though less precise, idea is that the entrepreneur *makes major changes in their organisational world.* Making a major change is a broad notion, but it goes beyond merely founding the organisation, and it differentiates the entrepreneur from managers who manage within existing organisational structures or make only minor or incremental changes to them."

Todaro (2000:13) however warns that the interdependent relationships between economic and non-economic factors, as factors "vary widely from one region of the world to another and from one cultural society to another." Longenecker (2003:525) takes a similar view saying that a relativist ethical approach is not necessarily ethical! E.g. look what everyone else is doing - "when in Rome do as the Romans do!" On the other hand Longenecker (2003:533) advises that cultural differences complicate ethical decision-making especially in global trade. In African cultures it is not regarded as bribery but rather as custom or a gesture of goodwill to present the chief with a gift.

Evaluators have much in common with entrepreneurs regarding their standing in society. Hisrich (1998:9) mentions that to one businessman, an entrepreneur appears as a threat, an aggressive competitor, whereas to another businessman the same entrepreneur may be an ally, a source of supply, a customer, someone who creates wealth for others as well, who finds better ways to utilize resources, and reduce waste, and who produces jobs other are glad to get.

Evaluators also learned a lot from management concepts. According to Worthen (1997:103) the management-oriented approach has guided programme managers through programme planning, operation, review and evaluation.

4.7 Evaluation and knowledge management

For IPDET (2002):m1p12) the development environment has evolved from "Conditionality to Knowledge Management and Participation." Knowledge about evaluation has also grown impressively in the last quarter century according to Worthen (1997:510). For Dollinger (1999:69) there are seven sources of opportunity to look for in the micro-environment, namely "the unexpected, the incongruous, the process need, industry and market structures, demographics, changes in perception and new knowledge."

Makhubela (2001:1) states "Integral to Research and Knowledge Management is preparedness to learn. It is about leveraging government departments to efficacy, efficiency, and better service delivery. Measuring impact is therefore about learning from our clients what we are doing wrong and how to get it right." Knowledge Management draws extensively from the intellectual capital theorists on how to measure impact on the intangible assets of organisations such as people skills and knowledge and the management of these assets, concludes Makhubela (2001:1).

To illustrate this rapid growth in knowledge Eloff (2001:1) notes that more information was produced in the 30 years between 1965 and 1995 than was produced in the 5000 years between 3000BC and 1965. The rate of change is increasing, tremendously causing knowledge to degrade very rapidly and reducing the life span of technical information. For example, it took the pager 41 years to reach 10 million users, the fax machine 22 years, the VCR 9 years and the internet a mere 10 months according to Eloff (2001:1).

At one extreme, thinking is impossible without some information and knowledge on the subject. At the other extreme perfect information would make things unnecessary. In between these two extremes both thinking and information are required, according to Couger (1995:135). Evaluation findings and lessons learned are valuable knowledge assets to an organisation.

Sveiby (2001) notes that it is probably still correct to regard Intellectual Capital (IC) and Knowledge Management (KM) as twins - two branches of the same tree. According to Sveiby (2001) it is Tom Stewart who in his June 1991 article *Brain Power - How Intellectual Capital Is Becoming America's Most Valuable Asset*, brings IC firmly on to the management agenda. He defines IC in his article as: the sum of everything everybody in your company knows that gives you a competitive edge in the market place. In Sweden terms such as a "Community of Practice" in measuring "Knowledge Capital" and "Intangible Assets" was born in 1988 out of the Swedish language work of Sveiby (2001). Individual competence is people's ability to act in various situations. It includes skill, education, experience, values and social skills. Competence cannot be owned by anyone or anything but the person who possesses them, because when all is said and done employees are voluntary members of the organization.

According to Sveiby (2001) it is clearly to the advantage of the knowledge firm to transform the innovations produced by its human resource into intellectual assets, to

which the firm can assert rights of ownership. One major task of IC managers is to transform human resource into intellectual assets. For Sveiby (2001) sentences such as " 'people are our most important resource,' repeated by tired CEOs with no imagination" in Annual Reports are words only. According to Sveiby (2001) it is better to help managers learn how to create value from knowledge. E.g. Chevron has created a "best practice" database. It captures experience of drilling conditions and innovative solutions to problems on site in a database for sharing globally with other sites. Hewlett-Packard (HP), famous for its overall culture of collaboration, which encourages knowledge sharing and risk taking on all levels, HP even supports people who try out things that don't work.

Eloff (2001:1) describes the new economy as a knowledge and idea-based economy where the keys to job creation and higher standards of living are innovative ideas and technology that are embedded in services, products and manufacturing processes. In this economy risk, uncertainty, dynamism and constant change have become the norm.

Knowledge management should also be an integral part of corporate entrepreneurship (or intrapreneurship). Corporate entrepreneurship (CE) is described by Barrett et al (2000) as the ability to simulate the attributes of the smaller entrepreneurial firm in the larger, more mature organization. Larger firms have greater and more varied resources than small businesses, and they have more aggregate knowledge. Evaluating and managing this knowledge in an entrepreneurial way can ensure businesses a competitive advantage.

4.8 Evaluation and management of change

Dollinger (1999:69) describes change as the most important thing to notice about the business environment. Changes in business environment offer opportunities for entrepreneurs. Existing firms have their resources, strategy and organisation structure geared for the past of current micro-environment. When a change occurs, it is frequently easier for the new firm to spot the change and configure a set of resources and an organisation to meet the new needs and the new realities.

Persaud (2001:2) states that when business is faced with “impoverished customers, degraded environments, failing political systems, and unravelling societies, it will be increasingly difficult for corporations to do business.”

E.g. the construct of intrapreneurship brings change to conventional management thought. Russell (1999) in his model conceptualizes corporate entrepreneuring as a set of behavioural changes at the organizational level. The changing behaviours include degree of top management risk taking, the frequency of product innovation, and the firm's propensity to "proactively compete with industry rivals." These behavioural changes and tendencies are encapsulated within a variable that the authors call "entrepreneurial posture." Entrepreneurial posture is considered to influence firm performance directly and to be influenced by environment, the business and mission strategies of the firm, and organizational variables such as resources and competencies, structure, culture, and top management values.

For Eloff (2001:1) the past decade was characterised by unprecedented change. For example, "the world entered the 1990's with the use of the Internet and ended the 1990's with almost one billion people communicating and conducting business on the Internet." A changing and dynamic context also requires transformational leadership. It calls for people who understand the need for change, are able to clearly articulate a vision, are focused, develop systematic plans and structures for participation and constantly reinforce an organisational culture. "These leaders must have passion and energy, people skills, be decisive, assertive and, importantly, entrepreneurial" (Eloff 2001:3).

Entrepreneurs can in many cases act faster on change than managers that sometime need to deal with more red tape. Wickham (2001:12) admits that while the entrepreneurs *may* be chief executive officer, the chief executive officer is not *necessarily* an entrepreneur. Clearly, both roles present considerable management challenges. Both demand vision, and ability to develop strategic insights and provide leadership.

The events of September 11 2001 will test the foundations of corporate responsibility, accountability and evaluation. Zadek (2002:4) suggests: "Bites of what many of us have worked to create over the last decade will undoubtedly fail the test, revealed at best as being marginal significance and at worst as part of the problem. But the shake-out in the field will strengthen the resolve of those who are serious about business making a real contribution, and encourage them..." AccountAbility (2001b) states that effective corporate governance is about evaluating change and leadership, leadership for efficiency, for probity and for responsibility. Leadership, should be both transparent and accountable.

4.9 The new evaluation world of an entrepreneur and manager

In their Empowerment Construction Model (*IDC Public Works Contractor's Facility)* the Industrial Development Corporation (Ntloko 2002) distinguishes between "Traditional, Empowerment and Accountability" phases in entrepreneurship and empowerment. Taking this model into account, the traditional entrepreneurship phase (past) included big business, profits, shareholders, management, finances, contracts, corporations, inputs and outputs. The empowerment phase (current) includes SMMEs becoming big news, enabling, affirmative action, black economic empowerment, gender empowerment, AA legislation, procurement, processes, inputs and outputs. The entrepreneurial evaluation phase (future) will include accountability, responsibility, corporate cultures, environment, sustainability, outcomes and impact.

Figure 4.1: Traditional, current and future entrepreneurship realities

Traditional Entrepreneurs (Traditional)	Entrepreneurial Empowerment (Current)	Entrepreneurial Evaluation (Future)
Big business = (Anton Ruperts)	SMMEs = Big News	Affirmative action questioned
Profits	SMME Enabling	AccountAbility (AA)
Shareholders	Affirmative Action (AA)	Responsibility
Management	BEE	Corporate culture
Finances	Gender empowerment	Environment
Contracts	AA Legislation	Sustainability
Corporations	Procurement	Outcomes+impact
Inputs+Outputs	Inputs+Outputs	

Developed from Ntloko 2002.

4.10 Why are managers reluctant to do evaluations?

Evaluation principles and accountability should not be regarded as new according to Shay (2001:2) because business "are already committed to forms of accountability (annual audited statements, ISO standards, good management practices, Board meetings, industry standards or accreditation, etc.)"

Bamberger 2002:4) presents a few reasons why institutions and managers are reluctant to do evaluations:

- no attention was paid to evaluation until the endeavour or programme was well advanced;

- there is no systematically collected base-line data;
- no definition of a control group;
- the objectives of the endeavour may not have been clearly defined;
- only a very modest budget has been allocated for evaluation studies;
- the project is nearing completion so that there is considerable time-pressure to complete the evaluation making it difficult to collect longitudinal data;
- little secondary data has been collected; and
- there is only a limited pool of local evaluation expertise (Bamberger 2002:4).

Although evaluation concepts are important for both managers and entrepreneurs, the entrepreneur might be in a pro-active position to pick up and run with the benefits of evaluation. The manager's stance might be reactive, in order to be in line with the prescriptions of evaluation and the directions of non-financial accountability. This is in line with Wickham (2001:6) who noted: "The difficulty lies not so much in giving entrepreneurs a role, but in giving them a role that is distinct from that of 'conventional' employed managers."

Many managers, most of whom would not be called entrepreneurial, make decisions about resources allocation every day, according to Wickham (2001:10). Evaluation cannot survive if there is no budget for evaluation.

4.11 What are the costs for management of not using evaluation?

Sanders (2002:253) in discussing the work of Scriven (1991) suggest several costs of not using evaluators:

- Bad products and services cost lives and health, destroy quality of life, and waste the resources of those who cannot afford waste.
- Justice is not served without evaluation of both programmes and personnel.
- Needs will not be addressed without evaluation-based programme direction.
- Ambiguity, prejudice, and mythology will continue without evaluation.
- Motivation and self-esteem that comes from evaluation will be missed without it.

According to Sanders (2002:257) the trouble is, "we can only regulate or monitor so much that comes out of organizations, and even then such regulation and monitoring can only be so effective. Most services and products go unmonitored. Put another way, external monitoring and evaluation is needed when internal evaluation is ineffective or nonexistent, that is, when evaluation has not been mainstreamed."

4.12 Impact assessment, social assessment and SMMEs

Impact assessment, simply defined, is the process of identifying the future consequences of a current or proposed action, according to the International Association for Impact Assessment (IAIA 2003).

IAIA (2003) introduces itself as a forum for advancing innovation, development and communication of best practice in impact assessment. Its international membership promotes development of local and global capacity for the application of environmental assessment in which sound science and full public participation provide a foundation for equitable and sustainable development. IAIA supports individuals and organizations involved in these and related disciplines by providing a forum for the exchange of ideas and opportunities for collaboration. IAIA promotes ecologically sustainable and equitable development and is committed to environmental justice and the preservation of human rights.

Important for SMMEs are the principles that IAIA underwrites, e.g.: The polluter pays principle; prevention of negative social impacts and ecological damage; Principle of Subsidiary where accountable decisions being made as close as possible to the individual citizen that might be affected; Multi-sectoral integration where important decisions will be fully integrated with existing programmes; "Intergenerational equity" looking at the impact of an endeavour on future generations; and Intragenerational Equity looking at the impact of an endeavour on the disabled, women and children.

Social Assessment (SA) is a process used to incorporate social information and stakeholder participation into the design and implementation of policies and projects. SA examines the social diversity of stakeholders, identifies critical issues among the target populations, and determines how to address these issues (Bamberger 2000). Using Gender Analysis, Social Assessment can be helpful in gathering gender specific data and can also contribute to understanding intra-household resource allocation, different social and cultural constraints affecting women and men, and their constraints on access to institutions and public resources (Bamberger 2000).

4.13 Accountability and SMMEs

As described in Chapter 2 “accountability is an essential feature of managerialism” for Mayne (1999:9). Similar to the prescriptions of Impact Assessment, managers need to meet regulations even if they are costly, because mistakes can be more costly in

terms of legal claims. Accountability is closely related to ethical behaviour and integrity. (Please refer to Chapter 2 regarding Accountability definitions.)

According to Shay (2001:2) accountability is a powerful management tool because it:

- Receives high quality feed back from stakeholders to help with strategic planning
- Manages stakeholders relationships;
- Is a process for integration of varied and competing interests;
- Focuses management's attention on improvements in specific areas; and
- Clarifies stakeholders' expectations and perceptions (Shay 2001:2).

AccountAbility (2001a) explains how the social and ethical accounting process fit with existing management systems. The management systems required for social and ethical accounting have close similarities with other management systems.

Common concerns include:

- Defining the organisation's policy;
- Communicating this policy within the organisation;
- Identifying key issues;
- Collecting and documenting information; and
- Monitoring performance against the identified issues.

Social and ethical accounting also provides an opportunity to explore the role of stakeholder engagement in environmental management (AccountAbility 2001a). It is a way for organisations to be accountable to their stakeholders, but is also a management tool to improve the performance of the organisation.

4.14 Ethical vulnerability of SMMEs

Longenecker (2003:529-530) states that small firms are extremely vulnerable regarding ethical aspects and mention the following examples:

- Cultural differences complicates ethical decision-making in global trade;
- Breach of trust, intimidation, manipulation, fraud, corruption;
- Spreading untruths to harm other business, product, service or persons;
- Bribery to level the playing field against fierce competition;
- Struggle for survival brings pressure and temptation;
- According to surveys most people do not feel pressurized to compromise personal standards;
- Contracts obtained by offering improper inducements;
- Trust accounts, public moneys; Bait advertising;

- Lack of resources makes it difficult for small business owners to resist extortion by public officials.

In order to get behind the ethical aspects and truth evaluators visiting SMMEs should be patient. Worthen (1997:163) explains that the best way to find out is not to ask questions at all. "If you fire off a question, it is like firing off a gun – bang it goes, and everything takes flight and runs for shelter. But if you sit quite still and pretend not to be looking, all the facts will come and peck round your feet, situations will venture forth from thickets, and intentions will creep out and sun themselves on a store; and if you are very patient, you will see and understand a great deal more than a man with a gun does." (Worthen 1997:163).

4.15 Managing the modus operandi of international funders

Develop finance institutions (DFIs) do not construct these projects themselves, but they are always on the lookout for suitable entrepreneurs that have a 'feeling' for development, to take up these projects. The World Bank frequently calls for entrepreneurs to bid on their projects. However these entrepreneurs should be 'eligible': "Interested eligible bidders who wish to be included on the mailing list to receive an invitation to [*prequalify/bid*] under ICB procedures, and interested consultants who wish to receive a copy of the advertisement requesting expressions of interest for large-value consultants' contracts, or those requiring additional information, should contact the address..." (World Bank 2002).

Procurement of contracts financed by loan/credit is conducted through the procedures specified in the World Bank's Guidelines (World Bank 2002). The independent Operations Evaluation Department (OED) tracks the Bank's development performance, analysing the effectiveness of Bank projects, programs, and processes; draws lessons of operational experience; and provides advice to the Board based on evaluations at the project, country, and sector levels. OED also guides evaluation capacity development of borrowing governments. Each year, evidence from these evaluations is marshalled to produce a summary report on the Bank's development effectiveness, called the Annual Review of Development Effectiveness, ARDE (World Bank 2002b). Effectiveness and quality is crucial. For Patton (2002:146) "Quality is ballet, not hockey."

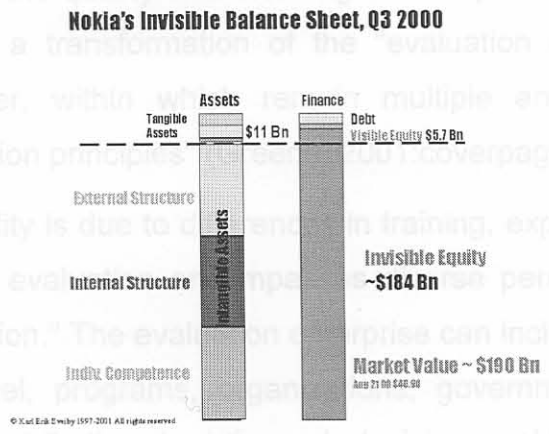
4.16 Assessing and evaluating the "Invisible" Balance Sheet

A company such as Nokia has little capital and machinery, other than its employees. Only people can act, therefore they are both the minders of the machines and the machines themselves according to Sveiby (2001). For the most part, their competence is directed outwards, to the task of generating revenue, by solving customers' problems. It is this outward-directed energy that creates the relationships, networks, and image that comprise the organisation's external structure.

According to Sveiby (2001), take a look "under the surface" at Nokia, where you find no less than $183 Billion in intangible assets. The "invisible" intangible part of the balance sheet can be classified as: Internal structure consists of patents, concepts, models, and computer and administrative systems. These are created by the employees and are thus generally "owned" by the organization, and adhere to it.

External structure consists of relationships with customers and suppliers, brand names, trademarks and reputation, or "image." Some of these can be considered legal property, but the bond is not as strong as in the case of internal assets because investments in them cannot be made with the same degree of confidence.

Figure 4.2:



(Sveiby 2001).

Evaluation practices can pick up such intangible assets, which the traditional auditing profession is unable to do.

4.17 Evaluating job creation in SMMEs

It is not always the case that entrepreneurs are not creating jobs, but only chase profits. Timmons (1999:4) proves that SMMEs are responsible for job creation. He uses the example that twenty years ago MIT researcher David Birch began to report his landmark findings in his seminal work "The Job Creation Process" (1979).

His evaluation results defied all previous notions that the large established businesses were the backbone of the economy and the generator of new jobs. "One Nobel Prize-Winning economist gained his award by 'proving' that any enterprise on the face of the planet with fewer than 100 employees was irrelevant to the study of economics and policy making." Birch surprised researchers, politicians and the businesses world with just the opposite evaluation: It was the new and growing smaller firms that created 81.5% of the net new jobs in the economy from 1969 to 1976. This general pattern has been repeated yearly. Since 1980 America has created over 30 million new jobs with a large SMME component (Timmons, 1999:4).

4.18 Evaluation enterprise flexibility to suit management and entrepreneurs

Given evaluation's transdisciplinary nature, the evaluation enterprise is continuously developing to suit the needs of decision-makers, managers and entrepreneurs. The American Evaluation Association welcomes new opportunities to "fulfil its mission to members and to the profession ...." The Board is pleased to accept "review proposals for endeavours that show promise" of furthering the goals (AEA, 1997).

In 'New directions for evaluation' Vol. 92 the editors introduced the subject of 'Responsive Evaluation' as reframing evaluation to "an engagement with on-site practitioners about the quality and meaning of their practice. These innovative ideas helped accelerate a transformation of the "evaluation enterprise" into its current pluralistic character, within which remain multiple and varied legacies of key responsive evaluation principles" (Greene, 2001:coverpage).

Evaluation's flexibility is due to differences in training, experience, and work settings, "the profession of evaluation encompasses diverse perceptions about the primary purpose of evaluation." The evaluation enterprise can include the following: "bettering products, personnel, programs, organizations, governments, consumers and the public interest; contributing to informed decision making and more enlightened change; precipitating needed change; empowering all stakeholders by collecting data from them and engaging them in the evaluation process; and experiencing the excitement of new insights." Despite that diversity, the common ground is that evaluators aspire to construct and provide the best possible information that might bear on the value of whatever is being evaluated (AEA, 2002b:3).

Evaluation's flexibility is also due to different traditions in which it operates. According to Bastoe (2000:117) in countries like Norway, "evaluation" as a concept is extremely

flexible and has been different in different sectors of society. There is, for instance, a "planning and auditing" tradition established in the Ministry of Finance, the Central Bank, and the Central Bureau of Statistics. There is another tradition associated with the sociology of law, which involves the study of the effects of legislation on society. Yet another tradition is the strongly applied social science tradition that includes a strong interest in conducting surveys of the well-being of individuals and clients. In addition to these three traditions, a fourth has emerged, based on the influence of business administrators. Stakeholders in these different traditions have different views (Bastoe 2000:117).

Similar to entrepreneurs and managers the evaluator "must capture the political climate in which the interventions operate as well as any cultural differences that might affect variation in experiences and outcomes." Stakeholders' participation is important since they can help the evaluator to be more flexible towards the local situation (IPDET 2002:3-2).

Entrepreneurs and managers should take note that evaluation enterprises are increasingly becoming flexible and democratic processes. These processes were extensively discussed in ten articles from 'New directions for evaluation' Volume 85 under the theme: 'Evaluation as a Democratic Process: Promoting Inclusion, Dialogue, and Deliberation' (Ryan, 2000).

4.19 Paving the way for a wider use of the evaluation enterprise

Flexibility and broadening the spectrum of evaluation are necessary as evaluation is not supposed to give "headaches for the searches, threats for the innovators, and distressing articles for journals devoted to evaluation" (Patton, 1997:8). In her article Kirkhart (2000:5) mentioned that historically, the "evolution of evaluation use has been marked by an increasing recognition of its multiple attributes."

Fetterman (1993) paved the way for the wider use of evaluation. He defined the 'Self-determination' part of 'Empowerment Evaluation' as the ability to chart one's own course in life, which forms the theoretical foundation of empowerment evaluation. It consists of numerous interconnected capabilities that logically follow each other such as the ability to identify badly expressed needs, establish goals or expectations and a plan of action to achieve them, identify resources, make rational choices from various alternative courses of action, take appropriate steps to pursue objectives, evaluate short and long-term results, reassessing plans and expectations and taking

necessary detours, and persist in pursuit of those goals. Political processes begin to work with the first inspiration to conduct an evaluation and are pivotal in determining the purposes to be served and the interests and needs to be addressed. According to Worthen (1997: 230) "Evaluation is inherently a political process." Any activity that involves applying the diverse values of multiple constituents in judging the value of some object has political overtones. Whenever resources are redistributed or priorities are redefined, political processes are at work.

According to Bamberger (2002:4) the micro-finance sector illustrates the growing demand for rapid, cost-effective evaluations. The earlier focus on rigorous and expensive impact evaluations of micro-finance programmes is being increasingly replaced by demand for middle-range, client-level impact evaluations. Practitioners are mainly concerned to use impact evaluation to answer basic questions such as: which clients are receiving most and least benefits, why the growth, decline and saturation of different market sectors, how to improve institutional understanding of what products and services clients prefer, what barriers they face, and what they value in a programme.

Evaluation will need to be "retooled" in order to sustain its credibility and enhance its wider use. Among the improvements proposed for development evaluation are: greater focus by evaluators on relevant policy questions, speedier and more cost-effective responses to emerging needs more open and participatory evaluation processes, more focus on evaluation dissemination, and greater responsiveness to the capacity development needs of developing countries (Picciotto & Rist, 1995:xii).

4.20 Mainstreaming evaluation in organisations

With mainstreaming evaluation should become part of the culture and job responsibilities at all levels of the organization. According to Sanders (2002:253) "Mainstreaming refers to the process of making evaluation an integral part of an organization's everyday operations. Instead of being put aside in the margins of work, evaluation becomes a routine part of the organization's work ethic.

The corporate evaluator should, similar to the corporate entrepreneur, be recognized as a potentially viable means for promoting and sustaining corporate efficiency, effectiveness, competitiveness, innovation and creative ideas. As mentioned in Chapter 2 the role of the evaluator, especially the corporate evaluator, shows similarities with the definitions of a corporate entrepreneur. Evaluations should be

innovative, it should create new ideas on old issues, and should investigate alternative ways to reach effectiveness. If the evaluator is treated as such, it will not be difficult to mainstream evaluation in organisations.

According to Gray (1998) referred to by Sanders (2002:253) the role of evaluation in most organizations, including community agencies, schools, government agencies, and businesses, "has been marginal up to now." It is ignored, given lip service, delegated to external consultants, or left to autocratic leaders. The mainstreaming of evaluation to reach excellence should be enhanced (Sanders 2002:254).

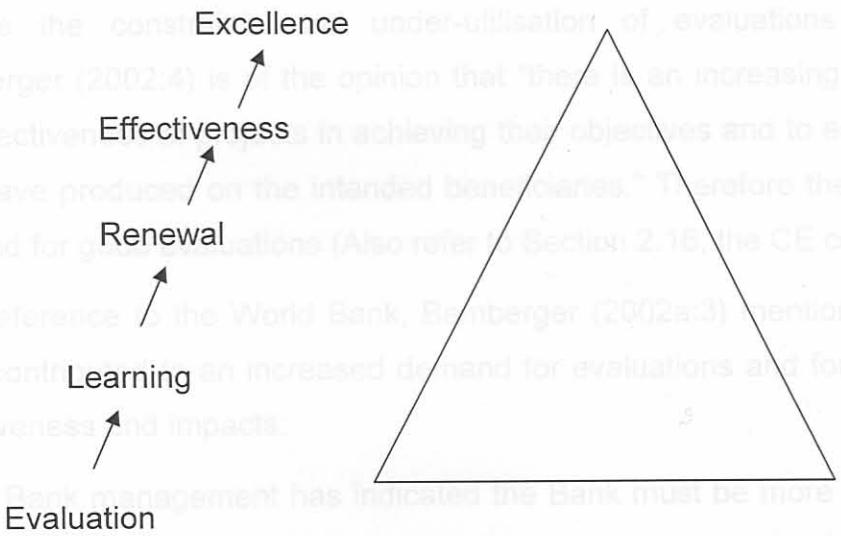


Figure 4.3: Role of evaluation to improve excellence (Sanders 2002:256).

Sanders (2002:253) also suggested six stages to mainstream evaluation in organisations and businesses:

- Awareness: being aware of the importance of evaluation to the organisation.
- Compliance: evaluation is done because it is required.
- Obligation: a feeling of guilt when evaluation is absent.
- Desire: organization members ask for evaluation.
- Leadership: true believers doing evaluation on their own initiatives.
- Capacity: to support evaluation are evident.

Evaluations should be mainstreamed to be consumer-oriented. There is a place for field-trial programmes before products are fully adopted. By developing long-term

plans for change, educators and other service providers can give untested products a chance without consuming large portions of the budget.

Worthen (1997:116) warns that mainstreaming and consumer-oriented approaches to evaluation are not without drawbacks, although they seem small compared to their benefits. They can increase the cost of products. The time and money invested in product testing will usually be passed on to the consumer. Moreover, the use of stringent standards in product development and purchase may suppress creativity because of the risk involved.

4.21 The evaluation enterprise itself is becoming big business

Despite the constraints and under-utilisation of evaluations by management, Bamberger (2002:4) is of the opinion that "there is an increasing demand to assess the effectiveness of projects in achieving their objectives and to estimate the impacts they have produced on the intended beneficiaries." Therefore there is an increasing demand for good evaluations (Also refer to Section 2.16, the CE concept).

With reference to the World Bank, Bamberger (2002a:3) mention some factors that have contributed to an increased demand for evaluations and for information on the effectiveness and impacts:

- Bank management has indicated the Bank must be more accountable for the outcomes of its investments and must be able to provide better information on the effectiveness of its investments.
- The poverty reduction initiative has generated a huge demand for simple, cost-effective ways to monitor and evaluate the impacts of different kinds of interventions on poverty reduction.
- The Board recently endorsed a new strategy for gender mainstreaming in the Bank. One of the central pillars of the strategy is to put in place a strategy to monitor the implementation of the strategy in the short run and to evaluate its outcomes and impacts in the medium to long-term. There is a strong emphasis on simple and economical evaluation approaches.
- A number of initiatives emphasize the need for new participatory evaluations with a strong emphasis on the use of evaluation as a form of community empowerment. Examples include: the Community Driven Development [CDD] initiatives, *Voices of the Poor* and much of the evaluations of the Bank's community water supply and rural development programmes.

- Social Funds have also generated a large demand for rapid and economical effectiveness, impact assessments and evaluations.
- Many of these concerns are reflected in the "Monterrey Consensus" which emphasizes the need for greater accountability in the management of aid.

The "evaluation enterprise" (Greene, 2001) is becoming big business, and evaluators are like entrepreneurs also looking for opportunities. "Recognising opportunities is one of the key elements that defines entrepreneurship and makes it unique" (Kuratko 2001: 157). It is therefore crucial for entrepreneurs to have an "Evaluative Focus" (Essama-Nssah 2000) when they plan their endeavours, but also for evaluators to have an "Entrepreneurial Focus".

4.22 Conclusions

Evaluation theory and practice can be enriched by, but can also enrich managerial and entrepreneurial sciences. For the American Evaluation Association (AEA, 2002b:4) the purpose of documenting guiding principles is "to foster continuing development of the profession of evaluation." The International Development Evaluation Association, IDEAS (2003:4) discusses a programme called "Ideas to Shape the Future of Development Evaluation."

Mainstreaming evaluation in organizations depends in part on capacity building in evaluation, but it also depends on evaluation being internalised as a value throughout the organization and depends on an infrastructure that supports and maintains evaluation. With mainstreaming evaluation should become part of the culture and job responsibilities at all levels of the organization. Institutionalising organisational structure, policies, procedures (e.g. accreditation), and systems (e.g. quality control) can contribute to organizational improvement, but will not be effective if they are not in the mainstream of organisational life. "I believe these distinctions to be important in getting the best use out of evaluations in organizations" (Sanders 2002: 254, 255).

The consequences of the new "Paradigms for Business" are according to Persaud (2001:2):

- New models of corporate behaviour: corporate citizenship and corporate social responsibility;
- Inclusiveness not exclusiveness – "trust me, show me, involve me", and
- Cross-sectoral partnerships: "no one can do it alone; complex issues e.g. poverty alleviation."

Zadek (2002:3) is of the opinion that managers and entrepreneurs should work more closely with public bodies and civil society organizations to explore which international frameworks would support companies committed to enhancing their social and environmental performance as part of their core business process.

Wickham (2001:9) describes an opportunity as a gap in a market where the potential exists to do something better, enhance effectiveness and create value. New opportunities, such as the evaluation enterprise, exist all the time, but they do not necessarily present themselves. If they are to be exploited, they must be actively sought out.

Entrepreneurs and managers should take leadership in propagating and utilising evaluation concepts and prove that it can contribute to their success. Wickham (2001:10) states that one special skill that entrepreneurs would seem to have contributed to their ventures is leadership, and leadership is increasingly recognised as a critical part of managerial success.

The use of evaluation concepts and constructs is an opportunity that entrepreneurs and managers should not overlook. This will not only buy them goodwill from stakeholders, but will facilitate to optimise their efficiency and effectiveness. It is thus of utmost importance for entrepreneurs and managers to acquaint themselves with evaluation concepts and constructs.

Chapter 5. Evaluation concepts and women construction SMMEs

5.1 Introduction

Recognition of women's role in the development process is "not new" (Moser 1995:127). International funders are involved in construction endeavours worth billions of Dollars, but "funders of intervention programmes and services at the federal, state and local levels are requiring greater accountability" notes Scheifer (2000:139).

The World Bank spends approximately $40billion (R350billion) and the Development Bank of Southern Africa about R3billion on development projects per annum. A large percentage of these funds find their way to the construction sector, and is earmarked for qualifying women entrepreneurs.

Women are nowadays regarded as the hidden resource of construction entrepreneurial potential and development. Women were however appreciated as entrepreneurs nearly three millenniums ago by King Solomon (Proverbs 31: 10-30): "She is worth far more than rubies ... She selects wool and flax and works with eager hands ... she gets up when it is still dark ... she provides food for her family ... out of her earnings she plants a vineyard ... she sets about her work vigorously ... her arms are strong for her tasks ... she sees that her trading is profitable, and her lamp does not go out at night ... She opens her arms to the poor and extends her hands to the needy ... She is clothed with strength and dignity ... She speaks with wisdom ... and does not eat the bread of idleness ..."

Research on gender is one of the "enduring entrepreneurship research topics" for Crijns (2002). According to Moser (1995:130) three operational procedures are particularly important in developing indicators for use in evaluating impacts on women development: A comprehensive database on what women do and why; identification of contextually specific problems of development; and a description of the relationships between these problems, with a cause and effect hierarchy established. Makhubela (2001:1) warns against traditional accounting and organisational models that only regard revenue and physical assets as 'valuable', and that regard people as liabilities rather than important resources and investments.

This chapter propagates the use of evaluation concepts and constructs in management and entrepreneurship of women construction SMMEs particularly, and

explains why women construction entrepreneurs should take note of evaluation as science and as enterprise.

5.2 Women and construction SMMEs

Women's involvement in the construction industry in a leading role dates back as far as 1315, when "a road-building project through the mountains of Fujian province was directed by a women engineer" (Lumsdaine & Lumsdaine, 1995:409). The SMME Act (South Africa 1996) defines the SMME construction as:

Figure 5.1: The SMME construction sector

Sector or sub-sector in accordance with the Standard Industrial Classification	Size of class	Total full-time equivalent of paid employees <	Total annual turnover <	Total gross asset value (fixed property excluded) <
Construction	Medium	200	R18.00 m	R3.50 m
	Small	50	R4.00 m	R0.80 m
	Very Small	20	R0.50 m	R0.20 m
	Micro	5	R0.15 m	R0.20 m

In Africa rural women are building their own homes. The concepts father as 'head of the house' and as the "bread winner" should be done away with, recommends the ILO (1995:8). In the rural areas women are ploughing the lands and place food on the table agrees Lazar (1993:6). This is now recognised as essential to ensure that the needs and interest of women are identified and met, and that women are "active participants rather than passive beneficiaries" notes Moser (1993:130).

At the Housing Awards Ceremony held 10 May 2002 the Keynote speaker said: "Women must take back the share in construction that is rightfully theirs. For centuries women in Africa built their huts, houses and homes, clayed floors, thatched roofs, cultivated the land, made money and raised their kids, while men were busy with more important things elsewhere" (Mthembi-Mahanyele, 2002).

5.3 Assessing the uniqueness of women entrepreneurs

The uniqueness of women entrepreneurs is emphasised by many authors: A successful women professor of Business Ethics at Auckland's Unitec said: "Passion is what gets you up in the morning" (Smith, 2000: 97). Entrepreneurial ventures stem

more from prior job with men, as compared to a woman where her's stem more from hobby or interest (Kuratko, 2001:152). "... patience and attention to detail, says the U.S. Small Business Administration, also contribute to the high success rate of women-owned businesses" (Davis & Long, 1999:26). The nature of our process is what makes us unique (Patton 2002:160). Women tend to start their entrepreneurial careers later than men (Hisrich & Peters, 1998: 78). This is probably because of marriage and raising children. According to Wolfersohn 2002 "family assets can be better used when they're made available to women, where women can take the lead in terms of education of their children. I've seen that in the poorest countries, women have the worst deal, and so it's hardest to advance their cause."

Women are unique. They have a "different touch", a "different point of departure" and a different "view of affairs" (CGE Mpumalanga, 1998:53). "Because we are different yet striving for the same ideals ... we must play a decisive role on constitutional, political and community levels" (CGE Mpumalanga, 1998:53). Women do not want to become like men as "...we need to liberate ourselves but without losing our gentle touch and femininity" (CGE Northern Province, 1997:26,27). "We already have everything by just being women" (CGE Mpumalanga, 1998:54).

According to Wickham (2001:71), Hillary Clinton mentioned that women lead half of all new businesses in the US, whilst in Britain it is only 30%. A serious handicap for women to realise their entrepreneurial potential, is reliable, affordable and conveniently situated day care facilities operating on flexi hours to suit their entrepreneurial work situation. According to Berger and Buvinic (1989:1), "Women entrepreneurs seem to be invisible in Latin America." Their specific characteristics and needs are often overlooked and only "passing reference" is given to the importance of women's contribution.

Women inspire good work by "interacting with others, by encouraging employee participation, and by showing how employees' personal goals can be reached as they meet organizational goals" agrees Lumsdaine & Lumsdaine (1995:104). This social leadership style is particularly relevant for sectors like the building industry where teamwork is important. "Women entrepreneurs tend to be more motivated by the need for achievement" is the finding of Hisrich & Peters (1998:78).

Forced to become the heads of their families when their men left to work as migrant labourers in the cities for months on end, women assumed the responsibilities of their

absent men. They built their dwellings, supported their families, and farmed the lands. "Whole communities became matriarchal, with the exception of the brief periods when the men folk temporarily returned" noted Lazar (1993:12).

5.4 Assessing the barriers women face and its negative impact on their entrepreneurial performance

"It is cheaper to hire or fire a woman." In Japan's recession, women employees were "the first to go." The seven-year-old equal opportunities in employment law "doesn't mean anything in an economic recession" according to Women's Watch (1993:4). "Women have the lowest paid and least skilled jobs. Women are more likely to be employed in temporary, casual or part-time positions which are less well-paid, less secure and enjoy fewer benefits" according to the Beijing conference (1995:24). Women are vulnerable as their support groups are a spouse, family, women's professional groups and trade associations, as opposed to men who lean on friends, professional acquaintances and business associates, note Hisrich & Peters (1998:78). For more on this aspect, please refer to Verwey & van Vuuren 2002.

For Dollinger (1999: 217) women have difficulties getting financing "partly because of discrimination"…"Clawing your way to the top without nails" is the phrase Sharon McCollick used to describe the scratching at the doors of banks to secure financing for her now successful business (Dollinger, 1999: 205). "Women usually rely solely on personal assets or savings" according to Hisrich & Peters (1998:78). Formal financiers are in any case not always good for new ideas, and "Banks are sometimes passion killers" agrees Crijns (2002). According to Wickham (2001:71) "...access to capital is one of the main stumbling blocks preventing women from starting their own businesses in greater numbers." For finances women entrepreneurs also make use of four Fs: "Family, fools, friends and formal financiers" (Crijns, 2002).

In 1970 women-owned US businesses employed less than one million persons, and increased in 1991 to 12 million (Timmons 1999:5). The proportion of women board directors to male board directors is, however, very low: only 4,6% of all directors are women. Not a single company in the SA Top 50 listings has more than 3 women directorships (Corporate women directors report, 2000:11). Unfortunately the woman entrepreneur must "already be rich or have the ability to borrow capital based on connections" agrees Jennings (1994:45).

"Women may be in the labour force but they are certainly not achieving their full potential," warns Wickham (2001:71). High numbers of educated women are found in part-time jobs. A UK survey revealed that 18% of British mothers with a tertiary education work less than 20 hours a week. "There is a widespread general mismatch between women's skills and what they are actually doing, which means that, for the government, there is a serious issue about skilled, highly educated women dropping out of the labour force completely or working in jobs where their talents cannot be used to the full" cautions Wickham (2001:71). Todaro (2000:266) states that: "Women are routinely discriminated against in terms of pay scales, job advancement, and job security. They are also more likely to be unemployed than men."

"The issue of development and the issue of poverty is very much bound up with the issue of gender and gender equality" informs Wolfersohn (2002). For Marguerite Berger (Berger and Buvinic 1989:1) the activities undertaken by women in society are not always "considered to be entrepreneurial despite the fact that they risk their own capital, create jobs and an income." However their male counterparts are "considered to be micro-entrepreneurs" by society. In several countries around the world, women still "cannot travel outside the home" according to World Bank (2001b).

The nature of the multitude of challenges facing women entrepreneurs in South Africa confirms that their full economic potential is not fully enhanced by both business and government. Women owned enterprises continue to remain isolated and are always the last to receive support. The main challenge identified in the NTSIKA report of 1999 is the need for the DTI to intervene by setting up a structure that will enable women to review the impact of policy interventions on their enterprises and to lobby for possible improvements. Without this, women will continue to be denied the opportunity to feature in the mainstream economic agenda, warns SAWEN (2002).

Economists have long argued that countries with fundamentalist regimes suffer economically because women are not allowed to participate (World Bank 2001). It is against this background that the DTI initiated the process of establishing the South African Women Entrepreneurs Network (SAWEN).

5.5 HOW can the hidden resource of women entrepreneurs be uncovered?

Much has been written on discrimination against women entrepreneurs, but this section is approaching the problem also from another angle: If all discrimination, old and new sophisticated, are eliminated, will all women obtain business opportunities

and will they survive as entrepreneurs? The problem is thus whether the external 'enabling' measures on their own are sufficient to 'empower' women, or should they also empower them internally with sufficient skills, training and knowledge.

Translating this problem statement into simplified economic terminology, it seems that there is a demand-supply gap. The legislation contributed by creating demand for women in business opportunities, also for women entrepreneurs in construction, but employers, contract providers, and even women still do not regard themselves as empowered to provide sufficient and competitive supply of skilled women to access these business opportunities. This is due to continued sophisticated discrimination, but more important due to a limitation in their supply qualities. Aspects limiting their supply qualities and therefore diminishing their acceptability for business opportunities need to be addressed (e.g. insufficient training, inadequate networks, and a shortage of finances). Empowerment from within, i.e. training, skills, know-how, liability, responsibility and accountability, seems more suitable.

Women should admire and honour women entrepreneurs in their communities. While Greece celebrates Plato and Austria acclaims Mozart, Americans honour Henry Ford and Bill Gates according to Barrett et al (2000).

The level of skills and training as well as the acceptability of women construction entrepreneurs need to be investigated. Chapter 8 will empirically test these outcomes aspects of women construction entrepreneurs.

5.6 Evaluation for empowerment vs. empowerment evaluation

According to Todaro (2000:8) development economics must be concerned with the economic cultural political requirements for effectively rapid structural and institutional transformations of "entire societies in a manner that will most efficiently bring the fruits of economic progress to the broadest segments of their populations." This includes the empowerment of these segments.

The theme of the 1993 American Evaluation Association (AEA) National Conference was “Empowerment Evaluation.” David Fetterman (1993:115), AEA President that year, defined empowerment evaluation as “the use of evaluation concepts and techniques to foster self-determination. The focus is on helping people help themselves." The World Bank agrees with this statement: "Evaluation should confront such poverty-specific issues” according to Squire (1995:44). Empowerment

evaluation is shared by other evaluation approaches such as stakeholder-based, participatory, and utilization-focused evaluation for Schnoes et al (2000: 55).

The empowerment evaluation process consists of four steps:

- Taking stock of concerns and resources, a process that includes all members of an organization or project.
- Planning to establish a vision that all members are dedicated to, and developing strategies and action plans to achieve the vision.
- Implementing strategies and action plans to facilitate the process.
- Generating outcomes to document competence and progress relevant to goals or vision (Schnoes et al 2000: 56).

One of the first applications for empowerment evaluation was to assess the impacts of economic and administrative reform programmes, often referred to as structural adjustment programmes (Schnoes et al 2000: 96).

Empowerment evaluation is a politically loaded concept, and is often misused to give an endeavour an unfair benefit of acceptability. The evaluation is conducted in a way that affirms participants' self-determination and political agenda (Patton, 1997:193). The idea behind stakeholder involvement and empowerment approaches can be linked to the concept of 'action research' in the 1940s (Caracelli 2000:103). Evidence on the impact of participation in project implementation is growing rapidly but is mainly in the form of case studies (Squire 1995:48).

Empowerment evaluation should comply with the evaluation standard of "political viability": Evaluation should be planned and conducted anticipating the different positions of various interest groups, so that their cooperation may be obtained, and so that possible attempts by any of these groups to curtail evaluation operations or to bias or misapply the results can be averted or counteracted (AEA, 2002a:2).

Evaluation for empowerment is different. It uses the evaluation concepts to empower people in order to perform better.

5.7 Misusing empowerment evaluation

In the 1930s concepts of empowered worker teams and continuous quality improvement to reduce defects were applied at Western Electric's Hawthorne Works in Chicago (Patton 2002:146). Empowerment evaluation should however not be used as cloak of legitimacy to cover up highly corrupt or incompetent evaluation business. Stufflebeam (1994:325) warns that many potential clients are willing to pay much

money for a good, empowering evaluation. Many administrators caught in political conflicts would likely pay handsomely for such friendly, non-threatening, empowerment evaluation services.

Stufflebeam (1994:323) does not agree with the term empowerment in the concept of evaluation. 'Evaluation' should rather be "narrowly and consistently defined." For him the common sense meaning of evaluation is the "worth of an object." Anything other is not evaluation. Adding terms such as *empowerment* or *development* to evaluation changes focus and undermines the essential nature of evaluation as a phenomenon unto itself advises Patton (1997:110). For Zadek (2002:2) a lot of frustration and disempowerment are present amongst entrepreneurs "in the developing world regarding globalisation and the inability of them to penetrate first world markets."

Evaluation on empowerment and gender aspects are used sparingly in developing countries. One reason is that evaluation has often suffered from "defects that limit its usefulness" warns Squire (1995:44). While most of the indicators used to assess the gender impact of programmes and projects still measure implementation progress rather than outcomes and impact of women's endeavours notes Moser (1995:125).

5.8 Empowerment evaluation and social justice

According to Patton (1997:102) the phrase "empowerment evaluation" can bridle. Like the strategic planning term *proactive,* the word *empowerment* can create hostile reactions. Empowerment carries an activist, social change connotation. "Empowerment, what is this new thing? What happened to what we used to call justice?" Karen Kirkhart, President for the American Evaluation Association National Conference in 1994 (the year after Empowerment Evaluation was the theme) chose the theme "Evaluation and Social Justice." (Patton, 1997:102).

Social injustice flourish in a state of poverty. All governments and institutions engaged in development should be encouraged to undertake more evaluation, and to share the results with each other, so that faster progress can be made in reducing poverty (Sandstrom, 1995:14). Agents posing questions are often closely identified with the donors whose programme is being evaluated. It is traditional, in many parts of Africa, to attempt to anticipate and provide answers that would reflect positively on the programme (Patel & Russon 2000:125). Empowerment evaluation can be "a means to an end in enabling programs to become independent in their program evaluation efforts" (Schnoes et al 2000: 55). It is important that the desired

empowerment is described in such a way that it is possible "to check at a later stage to what extent the project has been successful in relation to its objectives and the target groups" (NORAD, 1990:10).

According to Todaro (2000:172) women make up "a substantial majority of the world's poor." Social justice is absent in many cases as "everywhere, women and children experience the harshest deprivation. They are most likely to be poor and malnourished and less likely to receive medical services clean water, sanitation, and other benefits."

Many agencies adopted the Logframe to accommodate more rigorous evaluation techniques that included the intended women beneficiaries, social justice as well as the identification of casual linkages in the project environment (Moser 1995:125).

5.9 Empowerment through equal education and health

According to Todaro (2000:710) "The draconian cuts in health and educational expenditures during the 1980s and 1990s must be reversed."

Greater equality in education between women and men means healthier families. If African women and men had more equal schooling, child mortality would have been 25% lower than it was in 1990 (World Bank 2001b).

In South Asia, women have only about half as many years of education as men, and female secondary school enrolment rates are only two-thirds of male rates (World Bank 2001b). According to Todaro (2000:333) young females receive considerably less education than younger males in almost all developing countries. In 66 out of 108 countries, women's enrolment in primary and secondary education is lower than that of men by at least 10 percentage points. This "educational-gender-gap" is the greatest in the poorest countries and regionally in the Middle East and North Africa. In a study done in Ecuador, Bamberger (2002:18) concludes that "When farm work, paid work, community work and housework are combined, women in the treatment group worked an average of 144 minutes per day longer than men. For the control group the difference was even greater, namely 184 minutes."

A cross-country study of 63 countries finds that gains in women's education made the single largest contribution to declines in malnutrition in 1970-95, accounting for 43% of the total (World Bank 2001b). Smaller gender gaps in literacy translate into lower HIV infection rates, even after accounting for the effects of per capita income and other factors known to affect HIV prevalence (World Bank 2001b). According to

Todaro (2000:301), the provision of affordable health, child-care and family planning services would lighten the burden of women's reproductive roles and permit them a greater degree of economic participation.

Empowerment of women through education and knowledge is delivering. According to IPDET (2002):m1p12) the development environment has evolved to Knowledge Management and Participation. Small businesses, especially those owned by women are changing the face of America's economy. According to the National Foundation for Women business Owners' projections, (Federal Reserve Bank of New York, 2000), the number of women owning businesses exceeded their male counterparts since the year 2000. The earning power of these businesses is growing at astonishing rates. In fact over the last decade women-owned businesses showed nearly a 205% growth in revenues. The goal of this publication was to explore new strategies and methods for encouraging the expansion of women-owned-businesses as a catalyst for economic growth.

5.10 Evaluation concepts for empowering women

In South Africa the term 'empowerment' became a legal reality since the morality of empowerment evaluation debates between Stufflebeam (1994) and Fetterman (1993). Stufflebeam feared that empowerment evaluation would undermine the integrity of evaluation, while Fetterman argued that empowerment evaluation could contribute in creating a better world for the 'disempowered' (Patton, 1997:124).

Gender empowerment is not everywhere appreciated. Cultures exist in which there are very strong limits to the type of interactions that an evaluator can have with persons associated with the evaluation. There may be prohibitions against interactions between genders and even between population groups. For example, in some parts of the world there are caste or religious systems which place limits on dialogue between men and women and on some topics of discussion even between members of the same sex (Patel & Russon 2000:125).

The term empowerment derives from the concept power, which is defined as the control over material assets, intellectual resources and ideology. Empowerment embodies the idea of self-determination, a process through which women and communities increasingly control their own destinies. The link between controlling one's own life and valued resources while simultaneously respecting others' rights to do the same, is crucial to empowerment advises Ogula (2000:173).

Empowerment data sets are not limited to the evaluation of macro-economic policies. Examples of other potential applications include the assessment of trends in the incidence and distribution of poverty, and cross-country comparisons to test the association between female-headed households and poverty (Schnoes et al, 2000:98).

Although Evaluation for empowerment contains the empowerment concept, it differs from empowerment evaluation, because it uses the evaluation concepts to empower people in order to perform better. For women both concepts are useful, although using the 'evaluation concepts to empower themselves', is a less political loaded concept than 'empowerment evaluation'.

5.11 Evaluation concepts empowering women construction entrepreneurs

In the highly competitive construction sector, with large projects and even larger financial institutions overlooking these projects, women construction entrepreneurs should start to "think evaluation" (Patton, 1997:26) if they want to obtain business opportunities. It is important for their survival and growth that they prepare their enterprises for evaluation. Evaluation concepts should be made part of their managerial and entrepreneurial toolkit. Evaluation can be a mechanism for women construction entrepreneurs to find out whether what's supposed to be, is going on.

For Chelimsky, (1995:11) evaluations will spread internationally, "and as political support for its developers, it may be that we will at long last get our chance to see evaluation do what it was intended to do: help make institutions more effective, more responsive, more trusted, more accountable, and even – who knows? – better managed." Evaluations focus on measuring attainment of goals and objectives, that is, finding out if a "program works", that is, if it's effective, notes Patton (2002:147).

It is not so easy to reach women in remote rural areas. Access to some geographical, ethnic of linguistic groups may be difficult for logistical or security reasons. Communications infrastructure is often not well developed. In developing country conditions, administrative infrastructure often does not extend far beyond the tarmac. Stakeholders within reach of passable roads are often over-sampled, one of the characteristics of 'development tourism' warns Patel & Russon (2000:125).

The World Bank (2002) is "walking the talk on gender" because it makes sense from every relevant perspective: from the perspective of development effectiveness; from the perspective of ensuring women and men's human rights; and from the

perspective of reducing poverty for all (Valdivieso 2002). "Engendering Development" a Policy Research Report by the World Bank shows that societies that discriminate by gender pay a high price in terms of their ability to develop and to reduce poverty.

To be successful, women construction entrepreneurs should have an "Evaluative Focus" (Essama-Nssah 2000). Women should "think evaluation" as the OECD group PUMA puts it: to "foster evaluation culture" (Bastoe 2000:120).

5.12 International focus on women construction entrepreneurs

Small businesses, especially those owned by women are changing the face of America's economy. According to the National Foundation for Women business Owners' projections, the number of women owning businesses exceeded their male counterparts since the year 2000. The earning power of these businesses is growing at astonishing rates. The goal of the publication *Women's Access to Capital and Educational Services,* was to explore new strategies and methods for encouraging the expansion of women-owned-businesses as a catalyst for economic growth. It focussed on Western New York region where growth was slower than in the rest of the United States of America and the potential contributions that women businesses can make were greater (Federal Reserve Bank of New York, 2000).

Its contents were divided into: Educational Resources via Technical Assistance and Lending Resources through Traditional and Non-traditional lenders such as Venture Capital Resources, Government Agencies, Industrial Development Agencies, Development Corporations, and other lenders (Federal Reserve Bank of New York, 2000).

The recommendations from the publication were to co-ordinate and market a network of financial resources, mentoring services, training and technical assistance centres. This directory contains the financial and educational resources in the 14-county Buffalo/Rochester area. It quoted the Small Business Administration Office of advocacy stating that the number of women-owned businesses increased 89% over the last decade to an estimated 8,5 million. It also addresses the 8 most frequently asked questions by entrepreneurs starting a new business venture or seeking access to a variety of resources (Federal Reserve Bank of New York, 2000).

According to the International Development Evaluation Association, IDEAS (2003:4) newsletter, private sector organisations involved in public-private partnerships will be brought together in a regional workshop in southern Africa on Development

Evaluation in Public-Private-Partnerships (PPPs). This will examine best practice evaluation methods for empowering such partnerships.

5.13 Evaluation of gender sensitivity and impact

The recent shift from "women in development" to "gender and development" has resulted in changes in the evaluation practices of development agencies advises Moser (1995:125). Recent work by the Swedish International Development Agency (SIDA) on water resource management illustrates indicators to measure gender-differentiated project output, using tools such as gender role identification, intra-household resource allocations, and gender-needs assessments (Moser 1995:132).

"Who Are the Poor? The poor include people in remote and impoverished areas. Women and children make up a large proportion of the very poor, which also includes people marginalized by virtue of their race and ethnicity as well as those disadvantaged by circumstances beyond their control, such as disabilities and natural or man-made disasters" according to the World Bank (2002d). Todaro (2000:114) therefore rightfully asks the question: "What is the meaning of growth if it is not translated into the lives of people?"

Beneficiary assessment might be helpful in the evaluation of gender sensitivity. This approach can elicit information on many factors at household and community levels that more quantitative techniques cannot, advises Squire (1995:47).

According to Ogula (2000:173) gender sensitivity and impact includes to achieve equality and equity between men and women and to involve women fully in policy and decision–making processes and in all aspects of economics, political and cultural life as active decision makers, participants and beneficiaries, and to ensure that all women, as well as men, receive the education required to meet their basic human needs and to exercise their human rights. The World Bank (2002a) agrees with these statements.

5.14 Evaluating World Bank projects for gender sensitivity and impact

"Since the Beijing meetings, which is when I really came in, many women's leaders were keen to point out to me that the Bank was not doing the job that it should and that, in fact, on gender issues, internally in our institution we were not giving an adequate recognition to the quality of women that we had in our own institution. That was a pretty bad signal for what we were doing on the outside" (Wolfersohn 2002).

Gender Dimension of Bank Assistance: An Evaluation of Results, is a recent report examining the results of the Bank's Women in Development (WID)/ Gender and Development (GAD) policy over the last decade. It addresses the following questions:

- to what extent did the Bank help to reduce gender disparities in the health and education sectors?
- to what extent did the Bank increase the participation of women in economic activities? and
- to what extent did the Bank influence institutional changes that support the advancement of women? (OED 2002a).

The evaluation assesses Bank assistance in twelve countries with varying degrees of gender disparity. It finds that Bank assistance has achieved satisfactory results in the health and education sectors. The Bank has, however, been weak in promoting the economic participation of women and in improving the Borrower's institutional framework for gender, thereby reducing the overall development effectiveness of its assistance at a country level (OED 2002a:1).

The Executive Board of the World Bank endorsed a Gender Mainstreaming Sector Strategy Paper (GSSP) on September 18, 2001. The GSSP addresses the main issues highlighted in OED evaluation reports. The strategy involves working closely with countries to prepare periodic, multi-sectoral Country Gender Assessments that analyse the gender dimensions of development; identifying gender-responsive policies and actions important for development effectiveness in the country; and integrating these policies and actions into policy dialogue and the country assistance programmes. It establishes accountability for gender mainstreaming with the country director, requires the establishment of results based monitoring systems, and asks for periodic reports by operational Vice-Presidents on progress in policy (OED 2002a:1).

Efforts to address the increased participation of poor women in economic development have been made in only about one-quarter of the projects outside the health and education sectors. These efforts have been without a strategy, limited to small ad hoc WID components. There is also no indication that either the Bank or the Governments have been able to effectively upscale or replicate any of these efforts (OED 2002a:14).

Women constitute the backbone of the agricultural labour in many of these countries. Increased access to services, assets, and capital is very important for increasing their

productivity and incomes. In addition, given the different roles and responsibilities in the sector and the wide gender disparity in access to land and other resources, the impact of gender-blind development interventions is bound to be different and often adverse vis-à-vis women (OED 2002a:16).

The evaluation only examined whether the Bank provided strong and gender-aware safety nets. Accompanying social safety net interventions were weak in protecting economic risks. Social Fund projects were implemented in Ecuador and Zambia to provide decentralized mechanisms to assist the poor through community-initiated and managed sub-projects. The projects focused on constructing large numbers of small infrastructure in remote areas. None of the projects included a gender strategy. The projects generated temporary employment mainly for men, while in many cases, women provided free community labour warns OED (2002a:16).

5.15 Gender sensitivity in evaluation practice

Some of the religious systems prohibit contact between women and men, especially outsiders. And a topic such as HIV/AIDS would be strictly taboo. A male evaluator may not be able to administer a questionnaire on sexual practices directly to a woman. At the same time, a female evaluator might not be admitted to the household at all. If the husband considered that women should not leave the home, he might consider a female evaluator to be setting a bad example, say Patel & Russon (2000:125).

Women as important stakeholders should be involved at an early stage. For IPDET (2002:4-3) it may be somewhat unwieldy, but involvement of stakeholders in this first step is likely to:

- Generate better questions;
- Generate support for the evaluation;
- Increase access to whatever information is available; and
- Enhance the acceptance of the final report and recommendations.

By engaging women early on, "everyone will have a better understanding of the intervention and the challenges it faces in implementation. In addition, the evaluation team will be better informed about what information is needed, when, and by whom" (IPDET 2002:4-3).

Over the last few years, the World Bank has reaffirmed its mission of poverty reduction, and identified two key pillars of focus: improving the climate for investment,

jobs and growth; and empowering poor people to participate in development and investing in them. In this development environment, the empowerment of women has become a central element in the World Bank's strategy for poverty reduction (Valdivieso 2002).

According to IPDET (2002:m12p77) "Gender in Development Evaluation" includes:

- Gender mainstreaming within the thematic area of Sustainable Human Development;
- Gender equity within the poverty reduction strategy;
- Participatory evaluation include women views and voices; and
- Community mapping may reveal the gendered-nature of community life.

It cannot be assumed that women are always being accompanied by men. Todaro (2000:300) warns: "Though historically many women were simply accompanying their spouses, a growing number of unattached women in Latin America, Asia and Africa migrate to seek economic opportunity."

5.16 Development and the gender development agenda

The first crucial stage in evaluating gender impacts is to make women "visible" through the introduction of gender-disaggregated data. For Caroline Moser (1995:129) the goal is twofold:

- to quantify the full extent of women's participation in economic and social life (the economic justification for investing in women), and
- to demonstrate women's true status in terms of income, health, and education, as well as legal and other human rights (the equity justification for gender concerns).

For Moser (1995:129) "Grafting women onto impact evaluation" and gender-disaggregated data is crucial "What is not counted is usually not noticed" (Galbraith quoted in Moser 1995:129).

The development effort can only ensure its credibility "by getting results on the ground – and good evaluation is central to improving our effectiveness" (Sandstrom, 1995:14). To explore the multiple intersections between the new development agenda and the methods, instruments, and processes of evaluation, the World Bank sponsored a conference on 'Evaluation and Development', which was held in Washington, DC, in December 1994 (Picciotto & Rist, 1995).

The most important consequence of the fundamental paradigm shift that has taken place from Women in Development (WID) to Gender and Development (GAD) is that women are no longer treated as a special interest group but as an integral part of any development strategy that place women and men within their socio-cultural and political context (Moser 1995:127). Gender Analysis no more looks into the problems of women, but provides a forum to identify and address issues of both men and women (Bamberger 2000). "WID recognizes that women are active, if often unacknowledged, participants in the development process, providing a critical contribution to economic growth. This approach argues that, as an untapped resource, women must be brought into the development process. GAD, in contrast, recognizes the limitations of focusing on women in isolation. It highlights the need to look at women in society, at the social relations between men and women, and at the way in which unequal relations between these categories have been socially constructed" (Moser 1995:127). It is thus clear that *participatory equity* belongs to the domain of poverty-focused evaluation (Essama-Nssah 2000).

Evaluators must take note of the threefold role of women in development. In most poor communities men have the primary productive role while women are responsible for reproductive work, the childbearing and rearing required to guarantee the biological and social reproduction (Moser 1995:127). Nowadays Women also have a productive role, as well as a community-managing role, plus their "reproductive role." At the community level men more generally are involved in community politics. The most important planning implication is that women, unlike men, are severely constrained by the need to balance three roles, with value placed only on their roles as paid labourers" (Moser 1995:127).

According to IPDET (2002:12-9) women, because of their social role as caregivers, have different development needs. "But women are not all the same; some are old, while others are young. Rich and poor women, single and married women and those with and without children will vary in their needs and ability to participate in development. Development needs to be responsive to this variation."

5.17 Evaluation for development and women construction entrepreneurs

"As a follow-up to the World Conference on Women and Development, many African countries are currently implementing programmes that address gender issues and women empowerment. Monitoring and evaluation (M & E) is considered an integral component of successful social action projects" (Ogula 2000:173). The ultimate test

of development is results in the field and a "critical tool for achieving results is evaluation" (Sandstrom, 1995:). More than ever, the focus is on implementation and results. Evaluation must aim at "strengthening this orientation" (Choksi 1995:15).

An important area for women construction entrepreneurs to take note of is the development project cycle. "Detailed interventions to introduce gender-consciousness at each stage of the cycle include terms of reference for staff and consultants, training, and guidelines on the composition of mission teams (Moser 1995:128). The major purpose of logic analyses is not necessarily to rule out alternative explanations, but "to use the available evidence to suggest potential leverage points for improving the program in the next program cycle" (Scheifer 2000:144). The project cycle includes evaluation (Patel & Russon 2000:125). Part of the tension between the programme implementing and the monitoring and evaluation staff comes from cost. Programme Officers are often keen to use all of their funding for programme implementation within the project cycle, rather than spend any of it on evaluation. In other cases, donors may require formal evaluation, even if it is considered unnecessary by other stakeholders, such as the government (Patel & Russon 2000:125).

"Let's develop the plans of action, and then let's monitor it, and let's have a group here whose task it is to keep us honest. So that you will not get tokenism in what we're doing or even large numbers, which, as we all know, can conceal quite a lot. But we'll have a chance country by country and region by region to try and determine how it is that this issue of engendering development can be carried through" (Wolfersohn 2002).

An evaluator who is forced to administer a questionnaire on gender specific aspects of behaviour to a woman through her father or husband may not receive valid information. The father or husband may not have accurate knowledge of the women's behaviour and further may not admit that but instead give inaccurate answers to the questions (Patel & Russon 2000:125).

Gender concerns are integrated into development initiatives to serve a wide range of goals. Since these initiatives are evaluated against their original goals, these goals have important implications for evaluating gender impacts and for choosing indicators to be used for measurement (Moser 1995:126). Atkinson's (1970) framework for inequality analysis illustrates how to factor efficiency and equity considerations in a *social evaluation function* (Essama-Nssah 2000).

"Engendering Development" a Policy Research Report by the World Bank further examines the conceptual and empirical links between gender, public policy, and development outcomes and demonstrates the value of applying a gender perspective to the design of development policies (World Bank 2002).

There appears to be emerging a much greater focus on finding out which types of government and donor interventions work well for women, which do not, and the reasons why (Mackay 2000:43). One important message was that poverty has different consequences for each gender and that women's and men's distinct needs are often not fully recognized through conventional methods of poverty analysis and other quantitative/ operational studies (Bamberger 2000).

5.18 Prescriptions of international donors and DFIs

Todaro (2000:595) asks the question "Why Donors Give Aid?" and answers it as follows: Donor countries give aid primarily because it is in their political, strategic, or economic self-interest to do so. Some development assistance may be motivated by moral and humanitarian desires to assist the less fortunate (e.g., emergency food. relief programmes), but there is no historical evidence to suggest that over longer periods of time, donor nations assist others without expecting some corresponding benefits (political, economic, military etc.) in return. Todaro (2000:595) characterizes the foreign aid motivations of donor nations into two broad, but often interrelated, categories: political and economic.

Logframes are required by most development agencies for funding applications over a certain sum (£100,000 in the case of DFID) (Pasteur 2001). DFID recommends the use of evaluation constructs like the Logframe on their projects to:

- bring together a clear, concise and accessible statement of the key components of a project;
- clarify how the project is expected to work and what it is going to achieve. It helps to ensure that inputs, activities, outputs and purpose are not confused with each other;
- identify the main factors related to the success of the project; and
- clarify how project success (qualitative and quantitative) will be judged or measured, thus providing a basis for M&E (Pasteur 2001).

Specific procurement notices for contracts to be bid under the World Bank's international competitive bidding (ICB) procedures and for large-value consultants'

contracts are announced from time to time (World Bank 2002; World Bank 2002a). Although logical thinking is a prerequisite for most construction projects, "not all organisations, however, devise their own Logframes. There is a vibrant industry of consultants who 'Logframe' proposals on behalf of organisations" (Pasteur 2001).

A "Country Assistance Rationale" is used by DFIs according to IPDET (2002:m12p48) that includes:

- Test the performance against country plan;
- Test the relevance of the country program activities relative to country needs;
- Test the implementation and results of country program;
- Identify different outcomes and experiences in different sectors and approaches; and
- Demonstrate the effectiveness of aid.

For Todaro (2000:541) bankers are an unknown factor to many developing countries: "If I were the president of a Third World nation… I would be far more frightened by a well-dressed gentleman bringing loans from the IMF or Citibank than by a bearded guerrilla muttering threats of revolution…"

5.19 A window of opportunity for women construction entrepreneurs

DFIs do not bring in their own people from their own countries to do the construction, but make use of local construction entrepreneurs that understand development evaluation concepts and operate within the legislation and enabling measures of that specific country. At the moment the legislation and procurement procedures in South Africa benefit women construction entrepreneurs and is in itself an important window of opportunity.

Wickham (2001: 211) identifies the "five stages of the strategic window: spotting, locating, measuring, opening and closing." A window of opportunity is defined by Hisrich & Peters (1998: 41) as the time period available for creating the new venture. The market size and the length of the window of opportunity are the primary risks and rewards. To recognise these opportunities is one of the key elements that "defines entrepreneurship and makes it unique" (Kuratko 2001: 157).

For Eloff (2001:1) the new economy has seen the elimination of boundaries, major technological advances, the opening of global markets, entrepreneurial dynamism and intense global competition. It is estimated that more than $21 trillion of the world's combined output will be open to global competition.

Results orientation is important to survive and grow. Women construction entrepreneurs, who acquaint themselves with these prescriptions and include it in their business plans, will find it much easier to obtain business opportunities. In a competitive construction sector women entrepreneurs should follow the advice of professor Crijns: "You need to be quick, or else another hunter seizes the opportunity" (Crijns, 2002). The change from output orientation to outcomes, provide a window of opportunity to women construction entrepreneurs, because it is crucial "if change occurs, to spot the change and configure a set of resources and an organisation to meet the new needs and the new realities" (Dollinger 1999:69). Programme evaluation and quality assurance are important for survival in construction and both functions can now be built on a single, comprehensive programme information system (Patton 2002:147). An opportunity analysis or assessment (e.g. the opportunity to change emphasis from outputs to outcomes), is not a business plan, but is shorter and focus on the opportunity, not the venture (Hisrich & Peters 1998: 41).

For Wickham (2001:211) a business environment is full of opportunities because existing businesses always leave gaps. The strategic window of opportunity is a visual metaphor, which allows entrepreneurs to make sense of the opportunities they pursue. Women construction entrepreneurs, who are aware of the advantages of using international accepted methodologies, ensure that fundamental questions are asked and weaknesses are analysed, in order to provide decision makers with "better and more relevant information" (NORAD, 1990:10). For Wickham (2001:11) "At the end of the day, the entrepreneur is a *manager.*" Women construction entrepreneurs need to manage these opportunities.

5.20 Conclusions

Social injustices flourish in a state of poverty. Then, women and children experience the harshest deprivation. Women make up a substantial majority of the world's poor, they are most likely to be poor and malnourished and less likely to receive medical services clean water, sanitation, education and other benefits.

The situation is changing and women are nowadays regarded as the hidden resource of construction entrepreneurial potential and development. IDEAS (2003:4) is interested in private sector organisations involved in public-private partnerships. Development Evaluation in Public-Private-Partnerships is an important theme that will examine best practice and evaluation methods for such partnerships.

KPMG (2001) notes that in today's business environment, pressure is increasing on companies to make the right decisions, and to make those decisions faster than ever before, just to ensure survival. At the same time, stakeholders are becoming much more involved in those decisions, or the way in which those decisions are made. AccountAbility (2001a) asks the question: What does it mean for an organisation to perform well? To answer, of course, depends on whom you ask: a shareholder or an employee, a customer or a supplier, a local or international community, a regulator or a government.

There are many ways that women construction entrepreneurs could optimise the benefits of evaluation concepts and practice. This is similar to entrepreneurial success as Kuratko (2001: 157) states: "There is no one correct path, but rather many paths that can lead to entrepreneurial success." Women construction entrepreneurs who acquaint themselves with evaluation principles, and include it in their business plans, will find it much easier to obtain business opportunities. Legislation and procurement procedures in South Africa benefit women construction entrepreneurs, and are in itself an important window of opportunity.

This chapter propagated the use of evaluation concepts and constructs in management and entrepreneurship of women construction SMMEs particularly. It also pointed out that to be successful, women construction entrepreneurs should have an evaluative focus, women should think evaluation and foster an evaluation culture in order to give them a competitive advantage. The next chapter will point out HOW this could be done.

Chapter 6. Evaluation tools, constructs, logic models and outcomes

6.1 Introduction

It is important to understand the use, benefits and technical language of evaluation tools, logic models and outcome constructs (How). According to the International Development Evaluation Association, IDEAS (2003:4) the "current complex technical language, can create a barrier to the spread of monitoring and evaluation." The aim of this chapter is therefore to explain the current complex evaluation constructs within entrepreneurial and managerial perspectives.

From an economic development perspective Todaro (2000: 754) describes a model as: "An analytic framework used to portray functional relationships among economic factors." From an entrepreneurial perspective the Timmons (1999: 50) model is at the heart of spotting its three driving forces: Opportunity, the Team and the Resources and the concepts of fit and balance are crucial. From an evaluation perspective evaluation models should be equipped to ensure this "fit and balance." The International Development Evaluation Association, IDEAS (2003:2) strives to "resolve the methodological implications of the ongoing changes in the development paradigm" by developing models and quantitative indicators that will fit.

The next two chapters will describe and develop some models and techniques in the toolbox of evaluators that might be useful in entrepreneurship and management.

6.2 Why Evaluation Tools and Models?

Among the most common models and techniques used by management and entrepreneurs for estimating time on task are PERT charts and Gantt charts. PERT is an acronym for "Program Evaluation and Review Technique" and was developed by the U.S. Department of Defence as a management tool for complex military projects to reach the outputs in time (Worthen 1997:287). For many evaluations, PERT may be more cumbersome and time-consuming than it is enlightening. In most evaluation studies, a simplified version of PERT, in which one estimates the time required for each task and links the task with others to be performed either simultaneously or before or after the task at hand, is sufficient (Worthen 1997:287), up to the stage when the output is produced or delivered. Logical modelling is an extension of PERT, because it reaches beyond the output phase by emphasising outcomes.

According to Patton (2002:169) conducting an evaluation can be a heavy load, and evaluation models help with the heavy lifting. "Models provide frameworks like the

metal frame on a backpack that gives support and shape to the load on a hiker's back. Models offer evaluators structure and support. They structure certain methodological decisions, offer guidance about the appropriate steps to follow in design, provide direction in ways of dealing with stakeholders, and identify the important issues to consider in undertaking a study. Models provide frameworks rather than recipes, helping evaluators and evaluation users identify and distinguish among alternative approaches" (Patton 2002:169).

KPMG 2001 states that corporate leaders, management and entrepreneurs are "seeking tools to enable them to manage their organisation's social relationships, to address the demands of stakeholders, to make informed decisions, and to communicate effectively with stakeholders in order to build trust and loyalty." The practice of social and ethical accounting, auditing, evaluation and reporting provides a set of tools that can address these emerging needs. IDEAS (2003:1) arrived at a time when the demand for improved methods of development performance, M&E is at an all-time high.

6.3 The concept of Reality testing

For Patton (1997:26) the idea of "reality testing" is helpful in working with intended users to increase the value of something. To add value is of crucial importance to management and entrepreneurship. The willingness to be actively engaged in the work makes the evaluation useful. Reality testing implies that being in touch with reality can't simply be assumed. When individuals lose touch with reality, they become dysfunctional, and may be referred for psychotherapy. Management, entrepreneurs, organizations and businesses can also lose touch with reality, operate on myths and behaving in ways that are dysfunctional to goal and outcomes attainment (Patton, 1997:26). Shay (2001:2) agrees that business should be "committed to the truth and not afraid of facing reality."

Pasteur (2001) warns that the very spatial format of the logical models leads to rigidity and oversimplification. It assumes a fairly constant environment, and though it allows some assumptions to be expressed, it neither suggests ways to ensure assumptions are realised, nor offers alternatives in case they are not.

The processes of evaluation support change in organizations by getting people engaged in reality testing, that is, helping them think empirically, with attention to specificity and clarity, and teaching them the methods and utility of data-based

decision-making (Patton, 1997:103). For Patton (1997) evaluation is therefore nothing more than "outcomes based realty testing."

Realty testing might be useful in entrepreneurship and management as Shay (2001:2) warns that reality will dawn and truth will prevail, and "organisations that try to hide their shadows or mediocre sides only fool themselves...hiding things catches up with you in many subtle ways."

6.4 The 'outcomes' concept

The concept of 'Outcomes' is the single most important aspect in logical thinking. There is an important logical difference between outputs and outcomes. De Vos (2000:373) argues that "in contrast to the view of effectiveness that focuses entirely on what we do - or inputs - a second and entirely different view of effectiveness is one that focuses exclusively on outcomes. In other words, did the problem get solved or did the client improve in some way?" On the other hand a focus on process and outputs involves looking at how something happens rather than why (Patton 2002:159). For the output oriented manager the construct "Outcomes" might sound abstract. From an entrepreneurial perspective Ramsden (2001:1) agrees that "the way in which the company addresses the more abstract aspects of the business can have a material impact on long-term shareholder value and success."

On a lighter note, output versus outcome is the same as "leading a horse to the water versus getting a horse to drink the water" (Patton, 1997:157). Giving the horse water might be the output of an endeavour. Only when the horse drinks the water there is an outcome. The water that the horse **accepted** and **utilised** might now have an influence on the impact and performance of the horse.

The shift of thinking to 'outcomes' often proves difficult in programmes and agencies with a long history of focusing on services, performance, activities and outputs (Patton, 1997:157). Outcomes therefore point to "detectable and measurable change" (De Vos 2000:373). Scheifer (2000:139) agrees with this and points out that there should be strong connections among delivery, outputs, and desired outcomes. According to Todaro (2000:740) allocating expenditures to maximum consumer satisfaction (Utility and outcomes) is of utmost importance. Only after the output merged into outcome, there could be talk of economic development and impact. According to IPDET (2002:m4p25) 'Outcomes' are more immediate changes while 'Impacts' are longer-term changes when the 'Goal' is reached.

Wickham (2001:5) acknowledges the concept of outcomes in entrepreneurship. Thus he notes the idea that the entrepreneur is someone who undertakes certain projects to realise outputs as well as outcomes: "Undertaking particular projects demands that particular tasks be engaged in with the objective of achieving specific outcomes..."

The outcomes and impact of evaluations should also be improved. For Worthen (1997:23) "So many key evaluations have been disappointing or have made such little impact that even some evaluation advocates have expressed reservations about evaluation's living up to its high potential. Indeed, unless evaluation practices improve significantly in the years ahead, its potential may never be realized." The International Development Evaluation Association, IDEAS (2003:2) encourages an outcome-driven rather than an input-driven approach.

6.5 Logical thinking as concept

6.5.1 Defining logical thinking

Logical thinking is what it describes, to think logically. From an entrepreneurship perspective Couger (1995:135) defines thinking as "the operating skill through which innate intelligence is put into action." Thinking is a general term covering numerous activities from daydreaming to reflection and analysis. Couger (1995:135) presents some of the verbs Roget's Thesaurus includes for the word think: appreciate, consult, fancy, reason, believe, contemplate, imagine, reflect, cerebrate, deliberate, mediate, ruminate, cogitate, digest, muse, speculate, conceive, discuss, ponder, suppose, consider, dream, realize and weigh.

Shay (2001:2) notes that accountability and evaluation provides a comprehensive framework using "systems thinking" approaches and tools. Makhubela (2001:1) agrees by stating "It is not enough to change policies, strategies, structures and systems, unless the thinking that produced those policies, strategies, structures and systems changes." Kim & Mauborgne (1996:105) explain that conventional strategic logic and the logic of value innovation differ along the basic dimensions of strategy. Those differences determine which logical questions managers ask, what opportunities they see and pursue, and how they understand risk.

Since the late 1970s evaluators and development agencies realised that something is wrong with development thinking. According to Todaro (2000:708) conventional development efforts by donors and governments have largely failed to halt the poverty spiral, and indeed in some cases have aggravated it! This necessitated new

thinking in development. For too many decades the output of an endeavour was taken as development achieved. Even today donors are eager to build structures, name them after themselves, thinking that the outcome and impact will follow the delivery of the output automatically.

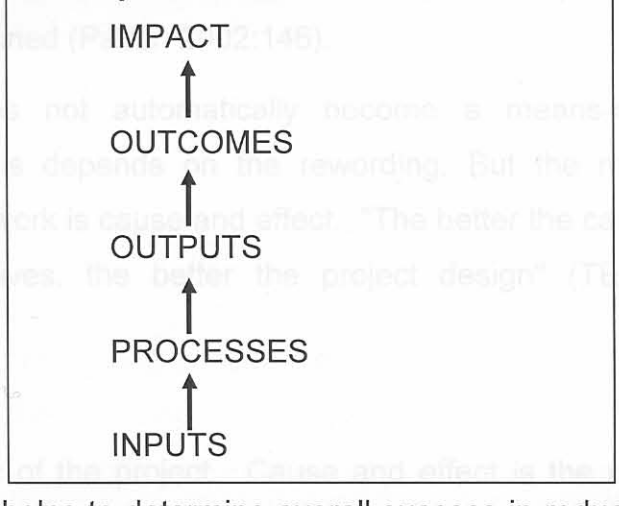
According to Worthen (1997: 92) "Probably the greatest strength and appeal of the objectives-oriented approach to evaluation lies in its simplicity. It is easily understood, easy to follow and implement, and produce information that programme directors generally agree is relevant to their mission." The simplicity is embedded in its logic of asking why? An output or product has no logic if the question "why was it done? or why was it produced?" cannot be answered. Unfortunately many "white elephants" are visible on the development frontier, simply because not enough attention was paid to the WHY?

6.5.2 Vertical logic and results chains

Another way of thinking about the nature of demand for M&E and vertical logic is to consider the "results chain" for any activity of government or any development actor.

The greater emphasis on development impact ensures that all development actors remain tightly focused on poverty-reduction. This focus needs to be complemented by an understanding of the efficiency and effectiveness of individual sectors, programmes and projects — measuring and evaluating their inputs, processes, outputs and outcomes. The performance of development activities at these levels helps to determine overall success in reducing poverty (Mackay 2000:43). The World Bank states it clearly: "A logical framework should be used, and results chains specified, to link instruments with country/sector objectives, taking full account of past performance" (World Bank 2002b). The Logical Framework (Please refer to Chapter 7) leads to the identification of performance indicators at each stage in this chain, as well as risks, which might impede the attainment of the objectives (OED 2002b:9).

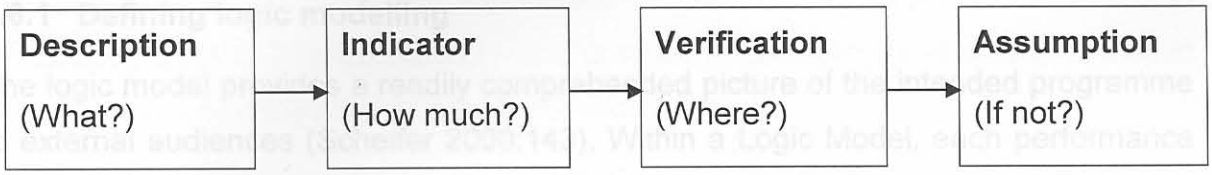
Figure 6.1: Results Chain for Development Activities



6.5.3 Horizontal logic and information trains

Horizontal logic normally points out how the vertical logic will be dealt with regarding: Description, Indicators, Means of verification and Assumptions. These aspects are dealt with in detail under the Logframe discussion.

Figure 6.2: Horizontal logic and information trains



This logic is dealt with in detail under Chapter 7 on Logframes.

6.5.4 Cause-effect logic

By definition, each project has this 'if/then' or cause and effect logic embedded in it. "If we produce certain outcomes under certain conditions, then we can expect to achieve certain other outcomes to results" (TEAM Technologies 1994:4). The Logical Framework forces you to make this logic explicit. But it does not guarantee a good design. The validity of the cause and effect logic depends on the quality and experience of the design team (TEAM Technologies 1994:4). This is also part of quality management, which is a systematic way of guaranteeing that organized activities happen the way they are planned (Patton 2002:146).

Every cause-effect relationship does not automatically become a means-end relationship (NORAD, 1990:12). This depends on the rewording. But the main concept underlying the Logical Framework is cause and effect. "The better the cause and effect linkages between objectives, the better the project design" (TEAM Technologies 1994:4).

6.5.5 Internal and External logic

Cause and effect is the internal logic of the project. Cause and effect is the core concept of good project design, necessary and sufficient conditions are the consequence. The cause and effect relationships between levels in the Hierarchy of Objectives (the activities to output, output to purpose and purpose to goal relationships) describe the necessary conditions for accomplishing purposes. But it does not define the sufficient conditions at each level for accomplishing the next higher level (TEAM Technologies 1994:4).

These sufficient conditions between the levels in the Hierarchy of Objectives are the Assumptions. This is the external logic of the project. "The objectives (necessary conditions) plus the assumptions (sufficient conditions) give us a much clearer idea of the project's design" (TEAM Technologies 1994:4).

6.6 The concept of Logic modelling

6.6.1 Defining logic modelling

The logic model provides a readily comprehended picture of the intended programme to external audiences (Scheifer 2000:143). Within a Logic Model, each performance measure will correspond to a specific part of the logic model, showing the chain of events between the programme's resources, activities, and goals (Scheifer 2000:142). "A logic model or theory of action depicts, usually in graphic form, the connections between program inputs, activities and processes (implementation), outputs, immediate outcomes, and long-term impacts" (Patton 2002:162).

6.6.2 The relationships

According to IPDET (2002:4-8) logic theory is where "the connection between the intervention and outcomes should sense." The relationships hypothesized to underlie a programme are usually facilitated by generating the "logic model" (Scheifer 2000:142). By using logic models evaluators could provide evidence for the hypothesised connections among programme delivery, outputs, and desired outcomes (Scheifer 2000:139). The logic of the Logframe can be helpful for projects with a clear, linear relationship between inputs and outcomes (such as infrastructure or service delivery projects), but it sits less comfortably with social development issues and does not cope well with complexity (Pasteur 2001). It is important to use logic models correctly as organizational theorists introduced what has become a classic distinction between "espoused theories" and "theories-in-use." The espoused theory is what people say they do; it's the 'official' version of how the organization operates (Patton 2002:163). Entrepreneurs should be cautious not to say that they use a logic model, but do not present or understand the crucial relationships necessary.

6.6.3 The uses of logic modelling

Developing and presenting the programme's logic encourages programme designers and managers to articulate its underlying "program theory," and may help to uncover conflicting or unrealistic expectations among various stakeholders (Scheifer

2000:143). Worthen (1997:92) agrees with this when stating that the objectives-oriented evaluation approach has "caused program directors to reflect about their intentions and to clarify formerly ambiguous generalities about intended outcomes."

The American Evaluation Association took stock of progress in the application and use of evaluation findings for decision-making and in the development of evaluation methods, and emphasizes the importance of credibility – through eclecticism in methods and clarity of presentation – and of realism, sensitivity, and independence in relationships with decision makers (Chelimsky, 1995:3).

It also would help to reduce the "stand alone" nature of current performance measure reporting by examining the "arrows" as well as the "boxes "in a program's logic model (Scheifer 2000:147). Certainly, such analyses are preferable to simply assuming that any desirable trends over time show worthwhile program "performance." More sophisticated and thoughtful approaches are needed to support the responsible use of performance data. Evaluators could be the "navigators" to help agency managers and administrators get more "bang" for their investments in performance measures "bucks" (Scheifer 2000:147).

Thinking and logic modelling go hand in hand. Couger (1995:135) notes that most of the authorities in the field of thought and reasoning agree that intelligence and thinking ability are not necessarily mutually dependent. He uses the example of a car to prove this point: A powerful car may be driven with little skills. A humble car may be driven with great skill. There is of course a connection between driving skill and the power of a car in as much as a *skilled* driver would do better in the powerful car than in the humble car. Innate intelligence or IQ can be compared to the intrinsic power of the car. The skill with which the power is used is the skill of thinking. Thinking is the operating skill through which innate intelligence is put into action. (Couger, 1995:135).

Logic modelling could help to link two major purposes for performance measurement: 'program improvement' and 'accountability to the public', which are often viewed as contrasting or even incompatible (Scheifer 2000:139). Logic models are also used to determine whether a project or endeavour is evaluable. "Clarifying the program logic model or theory of action is an important purpose of many evaluability assessments" (Patton 2002:164).

A wide range of participatory methods have been developed to give voice to the intended project beneficiaries, or affected groups, in the identification, design, and management of projects. These methods include rapid rural appraisal (RRA), beneficiary assessment, stakeholder analysis, and a wide range of social assessment methods. The *Participation Tool Kit* presents a wide range of participatory evaluation methods. These are mainly to consult with beneficiaries during project design (Schnoes et al, 2000:98).

6.7 Outcomes Mapping concept

Outcomes Mapping was developed in the late 90s by the International Development Research Centre (IDRC) in Canada (IDRC 2002). In the IDRC context, defining outcomes as "changes in behaviour," emphasizes that, to be effective, development research programs must go further than information creation and dissemination; they must actively engage development actors in the adaptation and application (Earl, Carden & Smutylo 2000:105). Outcome Mapping focuses on one particular category of results - changes in the behaviour of people, groups, and organizations with whom a programme works directly. These changes are called "outcomes." With Outcome Mapping, development programmes can claim contributions to the achievement of outcomes rather than claiming the achievement of development impacts (Earl, Carden & Smutylo 2000:105).

Although these outcomes, in turn, enhance the possibility of development impacts, the relationship is not necessarily a direct one of cause and effect. Instead of attempting to measure the impact of the programme's boundary partners on development, Outcome Mapping concentrates on monitoring and evaluating its results in terms of the influence of the programme on the roles these boundary partners play in development (Earl, Carden & Smutylo 2000:105).

The following are important concepts in outcomes mapping:

Boundary Partners: Those individuals, groups, and organizations with whom the programme interacts directly to effect change and with whom the programme can anticipate some opportunities for influence.

Outcomes: Changes in relationships, activities, actions, or behaviours of boundary partners that can be logically linked to a programme's activities although they are not necessarily directly caused by it. These changes are aimed at contributing to specific aspects of human and ecological well-being by providing the boundary partners with

new tools, techniques, and resources to contribute to the development process (Earl, Carden & Smutylo 2000:105).

Summary of the key characteristics of Outcome Mapping:

- It defines the program's outcomes as changes in the behaviour of partners.
- It focuses on facilitating change rather than controlling or causing change.
- It recognizes the complexity of development processes and of the contexts in which they occur.
- It looks at the logical links between interventions and outcomes, rather than trying to attribute impact to any particular intervention.
- It locates a program's goals within the context of larger development challenges beyond the reach of the program to encourage and guide the innovation and risk taking necessary.
- It requires the involvement of program staff and partners throughout the planning, monitoring, and evaluation stages Earl, Carden & Smutylo 2000:107).

Outcome Mapping is a new methodology in the toolkit of evaluators similar to Logframes. It seems to be a dynamic methodology that is currently being tested at the project, programme, and organizational levels by the Evaluation Unit of IDRC.

6.8 ZOPP, a participatory Logframe

The "Project Cycle Management (PCM) and Objectives-oriented Project Planning (ZOPP)" guideline describes the principles along which GTZ (German technical cooperation) plans and manages its cooperation inputs (ZOPP 1999). According to the World Bank Sourcebook (2002e) ZOPP is a kind of "participatory Logframe." ZOPP comes from the German term "Zielorientierte Projektplanung," translates in English to "Objectives-Oriented Project Planning." ZOPP is a project planning and management method that encourages participatory planning and analysis throughout the project cycle with a series of stakeholder workshops. The technique requires stakeholders to come together in a series of workshops to set priorities and plan for implementation and monitoring. The main output of a ZOPP session is a project planning matrix, which stakeholders build together. The purpose of ZOPP is to undertake participatory, objectives-oriented planning that spans the life of project or policy work to build stakeholder team commitment and capacity with a series of workshops (World Bank 2002e).

ZOPP helps a project team create a project-planning matrix (PPM), similar to a Logical Framework or LogFRAME, to provide in-depth analysis of project objectives, outputs, and activities. The PPM results from stakeholder workshops that are scheduled through the life of a project to encourage brainstorming, strategizing, information gathering, and consensus building among stakeholders (World Bank 2002e). "ZOPP should illustrate the quality of planning GTZ strives for, but it does not dictate specific tools or methods for individual planning steps" (ZOPP 1999).

The PPM is central to ZOPP based project work because the process of building it relies on repeated, collaborative stakeholder input. In the stakeholder workshops in which the matrix is developed systematic attention is paid to five important issues:

- *Participation analysis.* Taking stock of the range of stakeholder identities, interests, biases, expectations, and concerns.
- *Problems.* Often made visually clear through a "problem tree," through which key problems the project is meant to address are identified, grouped, and prioritised and their causes and effects brought to light.
- *Objectives.* In a corresponding objectives tree, the desired solutions are articulated, clustered and prioritised.
- *Alternatives.* A project strategy is created by understanding the range of means for meeting objectives.
- *Assumptions.* These conditions are necessary for successful transformation of problems into secured objectives. Assumptions are systematically examined and arranged in the PPM (World Bank 2002e).

Participants first review the variety of means available to achieve the project objective. The project-planning matrix shows activities and results as well as the conditions necessary for achieving both. These conditions are important assumptions on which rest decisions about activities, location, timing, procurement, and so on. The information is organized along two axes that show *(a)* why the project is being undertaken and *(b)* what the project outputs are that signal success. The PPM thus systematically answers the following questions:

- Why does the project aim for this overall goal?
- What is the project purpose?
- What results/outputs will the project achieve?
- How will the project achieve these results/outputs?
- What external factors (assumptions) are important?
- How can achievement of the objectives be measured?

- Where are the means/sources of necessary data?
- What will the project cost? (World Bank 2002e).

Objectives-oriented planning assumes that joint analysis and planning is necessary throughout the project cycle. If instituted early in the life of a project, ZOPP can provide a ready forum for extensive participation of diverse stakeholders. ZOPP is also a helpful approach to jump starting stalled project initiatives (World Bank 2002e).

For a variety of reasons, promising projects have been known to falter unexpectedly in midstream. In these cases, ZOPP can be a powerful tool for reorganizing if stakeholders' resolve to "save" the project is grounded in a broader commitment to collaboration. In its initial form, ZOPP was created to be closely tied to the project cycle; hence, it has mostly been used in a variety of sector and country settings for project work. The two main component tools of ZOPP, the stakeholder workshop and the PPM, can also be used for the participatory planning of policy and economic sector work (World Bank 2002e).

6.9 TeamUp, a team based ZOPP

TeamUp is a flexible, team based method for improving both the substance and process of project cycle management. It was developed to expand the benefits of ZOPP and to make it more accessible for institution wide use. PC/TeamUp, a software package, automates the basic step-by-step methodology and guides stakeholders through team oriented research, project design, planning, implementation, and evaluation (World Bank 2002e).

The ZOPP model "applies in principle to all types of projects – no matter whether the partner is a government organisation, a bank, an association or a non-governmental organisation, or whether the target group consists of a private enterprise or people in a village" (ZOPP 1999).

The TeamUp method is an organized process for building high performance teams. It has two dimensions, (a) task functions, which assist stakeholders in planning, decision-making, and acting and *(b)* team building, which encourages stakeholders to collaborate as an effective work group (World Bank 2002e).

The TeamUp method is a series of steps or modules designed to enable a group of individuals to perform essential management functions collaboratively. Typically, the team meets for a two and a half or five-day workshop. Software (PC/TeamUp) is available to facilitate the process. The software accommodates input from a broad

range of stakeholders who stand to benefit or otherwise be affected by design or implementation decisions and adjusts as the range of stakeholders changes through the planning and implementation process (World Bank 2002e).

TeamUp is developed in the late 1980s by the World Bank's Economic Development Institute and Team Technologies. They use the basic ZOPP method and then expands it. TeamUp assumes that the past and future are two different sources on which to draw when designing and implementing project related events. ZOPP, mainly concerned with anticipating and avoiding problem situations, looks to the past to understand the present. TeamUp, concerned with both problems and opportunities, looks to the past and the future to understand the possibilities that offer themselves to the present.

Furthermore, TeamUp adds depth to basic problem identification and design features by encouraging teams to anticipate implementation arrangements and inform the quality of their designs with these realities (World Bank 2002e).

6.10 A glossary of other tools of the trade in use by evaluators

Most of the methods described are a combination of tools, held together by the guiding principle e.g. output vs. outcome, participation, access etc. Some tools are used by social scientists and others by development practitioners. Some tools are designed to inspire creative solutions, others are used for investigative or analytic purposes. For management and entrepreneurs one tool might be useful for sharing or collecting information, whereas another is an activity for transferring that information into plans or actions. This is a brief glossary of terminology by the World Bank that evaluation practitioners use to describe the tools of their trade (World Bank 2002e; OED 2002b).

Access to resources measures how access to resources varies according to gender and other important social variables

Analysis of tasks is a gender analysis tool that raises community awareness about the distribution of domestic, market, and community activities according to gender.

Focus group meetings are relatively low-cost, semi structured, small group (four to twelve participants plus a facilitator) consultations used to explore peoples' attitudes, feelings, preferences, concerns and opinions.

Force field analysis. A tool similar to one called "Story With a Gap," which engages people to define and classify goals and to make sustainable plans by working on thorough "before and after" scenarios (Please refer to Chapter 11 of this thesis).

Logical Framework or LogFRAME. A matrix that illustrates a summary of project designs, emphasizing the results that are expected when a project is successfully completed. These results or outputs are presented in terms of objectively verifiable indicators.

Mapping. A generic term for gathering in pictorial form baseline data on a variety of indicators. This is an excellent starting point for participatory work because it gets people involved in creating a visual output that can be used immediately.

Needs assessment is a tool that draws out information about people's varied needs, raises participants' awareness of related issues, and provides a framework for prioritising needs. This sort of tool is an integral part of gender analysis (Please refer to Chapter 5 of this thesis).

Participant observation is a fieldwork technique used to collect qualitative and quantitative data that leads to an in-depth understanding of peoples' practices, motivations, and attitudes. Participant observation entails studying the general characteristics of a beneficiary population (Please refer to Chapter 3 of this thesis).

Pocket charts. Investigative tools that use pictures as stimuli to encourage people to assess and analyse a given situation.

Preference ranking also called direct matrix ranking, is an exercise in which people identify what they do and do not value about a class of objects.

Role-playing enables people to creatively remove themselves from their usual roles and perspectives to allow them to understand choices and decisions made by other people with other responsibilities.

Seasonal diagrams or seasonal calendars show the major changes that affect a household, community, or region within a year, such as those associated with climate, crops, labour availability and demand, livestock, prices, and so on.

Secondary data review also called desk review, is an inexpensive, initial inquiry that provides necessary contextual background. Sources include academic theses and dissertations, annual reports, archival materials, census data, maps, and so on.

Semi structured interviews. Also called *conversational interviews,* interviews that are partially structured by a flexible interview guide with a limited number of preset questions. This kind of guide ensures that the interview remains focused.

Socio-cultural profiles. Detailed descriptions of the social and cultural dimensions that in combination with technical, economic, and environmental dimensions serve as a basis for design and preparation of policy and project work.

Surveys. A sequence of focused, predetermined questions in a fixed order, often with predetermined, limited options for responses.

Tree diagrams. Information is organized into a treelike diagram that includes information on the main issue, relevant factors, and influences and outcomes of these factors. Tree diagrams are used to guide design and evaluation systems.

Village meetings. When multiple tools such as resource mapping, ranking, and focus groups have been used, village meetings are important venues for launching activities, evaluating progress, and gaining feedback on analysis.

Wealth ranking. Also known as well-being ranking or vulnerability analysis, a technique for the rapid collection and analysis of specific data on social stratification at the community level (Please refer to Chapter 3 of this thesis).

Workshops. Structured group meetings at which a variety of key stakeholder groups, whose activities or influence affect a development issue or project, share knowledge and work toward a common vision (World Bank 2002e).

Many other innovations have been introduced into the Bank's financial and non-financial toolkit (World Bank 2002b; OED 2002b:1-24; Mackay 2000:43). The list of tools and techniques currently in use at the World Bank includes, among others:

Performance indicators are measures of inputs, processes, outputs, outcomes, and impacts for development projects, programs, or strategies (Please refer to Chapter 6)

The Logical framework (LogFrame) and ZOPP help to clarify objectives of any project, programme, or policy (Please refer to Chapter 7).

Theory-based evaluation allows a much more in-depth understanding of the workings of an activity. For this reason every chapter of this thesis includes a strong theoretical part.

Formal surveys can be used to collect standardized information from a carefully selected sample of people or households. Surveys often collect comparable information for a relatively large number of people in particular target groups.

Multi-Topic Household Survey (also known as Living Standards Measurement Survey—LSMS) is a multi-subject integrated survey that provides a means to gather data on a number of aspects of living standards.

Single-topic household surveys cover a narrower range of issues in more depth.

Core Welfare Indicators Questionnaire (CWIQ) is a household survey that measures changes in social indicators for different population groups.

Client Satisfaction (or Service Delivery) Survey is used to assess the performance of services based on client experience.

Citizen Report Cards investigated the extent of corruption encountered by ordinary citizens.

Rapid appraisal methods are quick, low-cost ways to gather the views and feedback of beneficiaries and other stakeholders, in order to respond to decision-makers' needs for information.

Key informant interview is a series of open-ended questions posed to individuals selected for their knowledge and experience in a topic of interest. Interviews are qualitative, in-depth, and semi-structured.

Focus group discussion is a facilitated discussion among 8–12 carefully selected participants with similar backgrounds.

Community group interview is a series of questions and facilitated discussion in a meeting open to all community members. The interviewer follows a carefully prepared questionnaire.

Direct observation use a detailed observation form to record what is seen and heard at a programme site. The information may be about ongoing activities, processes, discussions, social interactions, and observable results.

Mini-survey is a structured questionnaire with a limited number of close-ended questions that is administered to 50–75 people. Selection of respondents may be random or 'purposive'

Participatory methods provide active involvement in decision-making for those with a stake in a project, programme, or strategy and generate a sense of ownership in the M&E results and recommendations. Providing knowledge and skills to empower poor people.

Stakeholder analysis is the starting point of most participatory work and social assessments. It is used to develop an understanding of the power relationships, influence, and interests of the various people involved in an activity.

Participatory rural appraisal is a planning approach focused on sharing learning between local people, both urban and rural, and outsiders.

Beneficiary assessment involves systematic consultation with project beneficiaries and other stakeholders to identify and design development initiatives, signals constraints to participation, and provides feedback to improve services and activities.

Participatory monitoring and evaluation involves stakeholders at different levels working together to identify problems, collect and analyse information, and generate recommendations.

Public expenditure tracking surveys (PETS) track the flow of public funds and determine the extent to which resources actually reach the target groups.

Impact evaluation is the systematic identification of the effects, positive or negative, intended or not, on individuals, households, institutions, and the environment caused by a given development activity such as a programme or project.

Cost-benefit and cost-effectiveness analysis are tools for assessing whether or not the costs of an activity can be justified by the outcomes and impacts. ***Cost-benefit analysis*** measures both inputs and outputs in monetary terms. ***Cost-effectiveness analysis*** estimates inputs in monetary terms and outcomes in non-monetary quantitative terms (World Bank 2002b; OED 2002b:1-24; Mackay 2000:43).

Concept Mapping: When working with stakeholders, one approach that might be useful is concept mapping. Concept mapping is a group process that provides a way for everyone's ideas to be heard and considered (IPDET 2002:4-5).

Value Innovation: Kim & Mauborgne (1996:106) explain the concept of Value Innovation with an example: In 1980, CNN came on the scene with a focus on creating a quantum leap in value, not on competing with the networks. CNN replaced the networks' format with real-time news from around the world 24 hours a day. CNN

not only emerged as the leader in global news broadcasting – and created new demand around the world – but also was able to produce 24 hours of real-time news for one-fifth the cost of 1 hour of network news (Kim & Mauborgne 1996:106).

Social and ethical accounting is concerned with learning about the effect an organisation has on society and about its relationships with an entire range of stakeholders - all those groups who affect and/or are affected by the organisation and its activities (AccountAbility 2001a).

Corporate social responsibility, corporate citizenship, and Social and Ethical Accounting are among the terms used to describe the programmes that measure, communicate, and improve the organisation's impact on society and the environment; and by this move the organisation towards operating sustainable (AccountAbility 2001b).

6.11 Conclusions

According to Worthen (1997: 92) the objectives (outcomes) approach has stimulated so much technological development over the years that the process of specifying objectives and developing or finding appropriate measurement procedures and instruments have been finally honed. The literature on objective-oriented evaluation is extensive, filled with creative ideas for applying the approach.

Evaluation Capacity Development (ECD) efforts can be focused on strengthening the supply of these tools if demand exists and if there is insufficient skills within the country, or if financial resources are inadequate, or if the tools require types of data not readily available. The cost-effectiveness of each tool will depend on country circumstances and priorities (Mackay 2000:43). "Good diagnosis, provided by high quality economic and sector work, is critical in establishing realistic development objectives" (World Bank 2002b).

In Chapter 8 the outcomes aspect regarding the acceptability of women construction entrepreneurs will be tested empirically.

Chapter 7 will illustrate and develop one of the frameworks that has its roots within the outcomes construct, namely the Logical Framework.

Chapter 7: The Logframe as evaluation tool

7.1 Introduction

The logical framework or Logframe is one of the most important evaluation tools. The logical framework integrates the outcomes construct, but add value to the outcomes construct by presenting it in a useable framework integrated with qualitative and quantitative aspects. The Logframe puts logical development thinking, explained in Chapter 6, into a practical framework.

7.2 The Logframe approach

7.2.1 Defining the Logframe approach

The Logical Framework Approach is based on the "Logical Framework" method, which is a way of structuring the main elements in a project, highlighting logical linkages between intended inputs, planned activities and expected results (NORAD, 1990:8). The Logical Framework Approach involves Problem analysis, Stakeholder analysis, Objectives analysis and selecting a preferred Implementation strategy. "The logical framework (Logframe) helps to clarify objectives of any project, program, or policy. It aids in the identification of the expected causal links ... in the following results chain: inputs, processes, outputs (including coverage or "reach" across beneficiary groups), outcomes, and impact" (OED 2002b:9).

7.2.2 Using the Logframe approach

The Logical Framework approach, also known as ZOPP, has become the defacto standard for International Development project design (Logframe 2002). The Logframe approach is an analytical, presentational and management tool which can help planners and managers to:

- Analyse the existing situation during project preparation;
- Establish a logical hierarchy of means by which objectives will be reached;
- Establish how outputs and outcomes might best be monitored and evaluated;
- Identify some of the potential risks; and
- Present a summary of the project in a standard format (OEU, 2002).

The Logframe is also a vehicle for engaging partners in clarifying objectives and designing activities. During implementation the Logframe serves as a useful tool to review progress and take corrective action (OED 2002b:9).

7.2.3 Problem analysis and the Logframe approach

Problem analysis involves identifying what the main problems are and establishing the cause effect situation. The key purpose of this analysis is to try and ensure that 'root causes' are identified and subsequently addressed in the project design, not just the symptoms of the problem.

Stakeholders analysis give further consideration to who these problems actually impact on most, and what the roles and interest of different stakeholders might be in addressing the problems and reaching solutions. It is useful to distinguish between the 'target group' and the broader group of stakeholders. The target group are those who are directly affected by the problems in question and who might be beneficiaries.

7.2.4 Problem tree analysis and the Logframe approach

Analysis of Objectives: An objectives tree should be prepared after the problem tree has been completed and an initial stakeholder analysis has been undertaken. While the problem tree shows the cause and effect relationship between problems, the objective tree shows the means and end relationship between objectives. LFA can be used not only during initial planning, but also as a management tool during project implementation (NORAD, 1990:11).

Analysis of implementation strategies will be a choice between different variables. E.g. should all the identified problems and/or objectives be tackled, or a selected few, what is the combination of interventions that are most likely to bring about the desired results and promote sustainability of benefits, what are the likely capital and recurrent cost implications of different possible interventions, and what can be realistically afforded and which strategy will best support participation by all?

Criteria that may be used to make a broad assessment of different options could include the benefits to target groups, total cost and recurrent cost implications, financial and economic viability, technical feasibility, ability to repair and maintain assets, sustainability, and contribution to institutional strengthening, environmental impact and compatibility with priorities (OEU, 2002). Identify substantial and direct effect of the focal problem. A problem tree shows the cause and effect relationships between the problems (NORAD, 1990:12).

7.2.5 Logframe Approach (LFA) versus the Logframe Matrix (LFM)

A distinction is made between what is known as the Logical Framework Approach (LFA) and the Logical Framework Matrix (LFM) (OEU, 2002). The Logical Framework

Approach involves Problem analysis, Stakeholder analysis, Objectives analysis and selecting a preferred Implementation strategy, mainly tree analysis.

The product of this analytical and Logical Framework Approach is the Logical Framework Matrix (the Logframe), which summarises what the product intends to do and how, what the key assumptions are, and how outputs and outcomes will be monitored and evaluated. Experienced evaluators sometimes start directly with the Logframe matrix. Team Technologies, Inc. specializes in introducing flexible, results-oriented and client-centred Project Cycle Management (PCM) systems based on the Logical Framework Approach (Logframe 2002).

7.3 Logframe matrix

7.3.1 Defining Logframes

The Logframe is a vehicle for engaging partners in clarifying objectives and designing activities by requiring the specification of clear objectives, the use of performance indicators, and assessment of risks (OED 2002b:9). The Logframe is a project improvement tool that has the power to communicate a complex and costly project clearly and understandably on a single sheet of paper (TEAM Technologies 1994:4). Similar to a logic model the Logframe makes explicit expected or hypothesised relationships (Scheifer 2000:143). The Logical Framework is the up-front planner on which the implementation and operations tools are based and the Logframe provides the basis for formative and summational evaluation efforts aimed at assessing the project's actual impact (TEAM Technologies 1994:2). Logframe or Zopp are compasses, which help with objectives, oriented project planning (ZOPP 1999).

7.3.2 The aim, origin, need and development of Logframes

Aim: Logframe helps strengthen the three main stages of the project cycle. Better project design, implementation, and evaluation leads to better project. The logical Framework helps provide the implementation team with essential planning decisions for developing operational plans (TEAM Technologies 1994:1).

Origin: Logical frameworks were initially developed for USAID in 1970 (TEAM Technologies 1994:4). The Logframe in its 4x4 format is designed for DFI projects by USAID in 1979 (OEU, 2000).

Development Finance institutions became frustrated with the emphasis put on output presented by techniques such as PERT (Program Evaluation and Review Technique), CPM (Critical Path Methods), etc. These programs ensure successful

completion or outputs of projects or endeavours without asking the questions: WHAT NOW? or SO WHAT? After several failures and "White Elephants" it can no more assumed that the successful completion or output of a business endeavour or project would automatically lead to an OUTCOME or IMPACT. Logframe origins can be traced back to private sector management theory, such as the 'management by objectives' approach, which was popular in the 1960s (OEU, 2002).

7.3.3 The Logframe 4x4 matrix

The result of the logical framework approach is presented in a matrix. The matrix usually has four columns and four rows. A Logframe table is built up from four main logic components namely the Activities, Outputs, Objectives and Goal. For each of them a Description, Indicators, Means of Verification and Assumptions should be provided. A typical Logframe table therefore consists of 16 blocks or cells. Activities and Outputs are supply related and driven by the project team, while the Project Objectives and Project Goal are demand driven to suit the needs of the beneficiary.

The vertical logic identifies what the endeavour intends to do, and clarifies the causal relationships between them. The horizontal logic defines how the endeavour's objectives are specified in the description, how it will be measured, the means by which the measurement will be verified, and assumptions. The project or endeavour's description is completed, the assumptions, indicators and the means of verification (Also refer to the trains and chains of Chapter 6).

Figure 7.1: Logframe 4x4 matrix

	Descriptions	Indicators	Verifications	Assumptions
Goal (Impact)				
Objectives (Outcomes)				
Outputs (Products)				
Activities (Inputs)				

The Logframe has four sections, namely:

- ✓ GOAL (or expected impact), e.g. Economic development or creation of jobs, Socio economic impact.

- ✓ OBJECTIVE (or purpose, or outcome), e.g. whether the project is socially, environmentally, institutionally accepted and utilised by the clients or envisaged beneficiaries in order to set the scene for the expected impact under the abovementioned GOAL;
- ✓ OUTPUTS (or deliverables or products) the technical output e.g. the dam built or report published, the institutional, environmental and social arrangements, or tangible asset delivered that will provide an outcome; and
- ✓ ACTIVITIES (or tasks and inputs) needed to accomplish the outputs, e.g. teams, meetings, budgets, and financial arrangements.

For each of these sections DESCRIPTION, INDICATORS, VERIFICATION and ASSUMPTION columns are presented. For every goal, purpose, output and activity, the framework requires specification of objectively verifiable indicators, means of verification (types of data), and important assumptions about the linkage between activities and outputs, outputs to purposes, and purposes to goals.

The four rows and four columns therefore present the 4X4 Logframe matrix often referred to. Working from the bottom upwards, ensure that cause-effect relationships have become means-end relationships (NORAD, 1990:12).

7.3.4 The description column of the Logframe 4x4 matrix

The description column provides a narrative summary of what the project intends to achieve and how. It describes the means by which desired ends are to be achieved (the vertical logic). The purpose describes the desired impact the project will hopefully have, or how the world will be changed as a result of producing the project's outputs (TEAM Technologies 1994:4).

Goal: Refers to the sectoral or national objectives to which the project is designed to contribute, e.g. Increased incomes. It can also be referred to as describing the expected impact of the project. The goal is thus a statement of intention. The goals of an endeavour should be clearly set. It is meaningless to say: "You're sure you've about arrived" if you were not sure where you have been going (Patton, 1997:183). For example, if farm production is increased (purpose), then farm family income will be increased (goal). Very often a portfolio of projects will share a common goal statement. Goals are derived from the borrower's Strategic Development Plans and supported by World Bank and Borrower collaboration (TEAM Technologies 1994:6).

Objectives/Purpose (Logframe Outcomes): Refers to what the project is expected to achieve in terms of development outcome e.g.: Increased agricultural production, or cleaner water. The purpose outcome is very often the change in behaviour of the project beneficiaries. For example, a purpose typically describes the use of project outputs: New production methods USED or new systems IMPLEMENTED (TEAM Technologies 1994:5). There is an important difference between outputs and outcomes. It is the same as "leading a horse to the water vs. getting a horse to drink the water." Giving the horse water might be the output of an endeavour. Only when the horse drinks the water there is an outcome. The water that the horse accepted and utilised might now have an influence on the impact and performance of the horse (Also explained in Chapter 6). The shift of thinking to outcomes often proves difficult in programs and agencies with a long history of focusing on services, activities and outputs (Patton, 1997:157). Some models even exclude the outcome aspect: "In developing gender impact indicators a threefold distinction can be made between input, output, and impact indicators" (Moser 1995:130). When the outcomes aspect is excluded the logic model is incomplete.

Outputs: Refers to the specific results and tangible products (goods and services) produced by undertaking a series of tasks or activities e.g.: Irrigation systems or water supplies constructed, areas planted/developed, buildings or other infrastructure built, or policy guidelines produced.

Activities: Refers to the specific tasks undertaken to achieve the required outputs e.g.: For a new community water supply might include: further design, establishing water users committee and maintenance procedures, site preparation, collection of local materials, tank construction and pipe laying. The Logframe should not include too much detail on activities, and should not replace PERT.

Activity Clusters give a detailed description how the project will be done. The main action components the project team must implement to accomplish the outputs. How many should you include at this stage of the project design? For the purposes of the Project Matrix, the activities are a brief summary of three to seven actions for each output objectives, just enough to outline the strategy for accomplishing each and to provide the basis for a Work Breakdown Structure (WBS) analysis or a more elaborate Activity Chart, Bar Chart or Gantt Chart (TEAM Technologies 1994:6).

Inputs are normally part of Activities: It refers to the resources required to undertake the activities and produce the outputs e.g. as personnel, equipment, and materials.

7.3.5 The indicator column of the Logframe 4x4 matrix

Indicators refer to the information needed to help determine progress towards meeting project objectives. Although gender-differentiated output indicators have long been used in the social sectors such as health, education, and family planning, initiatives to develop performance indicators focused on the clients / users of physical infrastructure provide important opportunities for identifying critical entry points for gender indicators (Moser 1995:132). The World Bank is making use of indicators for a wide variety of purposes (World Bank 2002f).

An indicator should provide, where possible, a clearly defined unit of measurement and a target detailing QQT the quantity, quality and timing of expected results. A logical framework identifies performance indicators at each stage in the logic chain (OED 2002b:9). "An indicator is just that, an indicator" (Patton, 1997:159). It's not the same as the phenomenon of interest, but only an indicator of that phenomenon. A score on a reading test is an indicator of reading ability but should not be confused with a particular person's true ability. Indicators are inevitably approximations, are imperfect and vary in validity and reliability (Patton, 1997:159).

How many indicators? "The fewer the better" (TEAM Technologies 1994:8). Use only the number of indicators required to clarify what must be accomplished to satisfy the objective stated in the Hierarchy of Objectives column (TEAM Technologies 1994:8).

"Good indicators should be **SMART**" (ITAD, 1999):

- **S**pecific: to project outcome in question;
- **M**easurable: using current techniques;
- **A**ttainable: within the time period of the project;
- **R**ealistic: and meaningful measure; and
- **T**ime-bound: to establish achievable targets (ITAD, 1999).

Indicators are important for because of the following reasons:

- Indicators provide the quantitative basis that will ensure evaluability;
- Indicators are an integral part of the Logical Framework,
- Indicators summarise complex information 'at a glance';
- Indicators measure development impact.
- Indicators provide a balanced presentation of financial, economic, social, institutional, technical, environmental and risk factors instead of a single measure (ITAD, 1999).

Using the **QQT** principle in indicators means:

Quality- regarding the nature of the indicator,
Quantity- number or percentage;
Time- timeframe to be provided.

Sectoral indicators can be developed for different sectors of the economy (ITAD, 1999): Agriculture, Economic adjustment, Education, Environment, Financial sector, Industry and mining, Oil and gas, Population, health and nutrition, Poverty reduction, Power, Private sector development, Technical assistance, Telecommunications, Transportation, Urban development, Water and waste water (ITAD, 1999).

These KPIs could normally be found and verified in:

- ✓ Tracer studies of alumnae students;
- ✓ Economic development studies and reports;
- ✓ Manpower studies; and
- ✓ Employment records.

Sectoral performance indicators also have the potential to be used as "trigger points" for donor funding. To the extent that this occurs, it will make performance indicators more than a technical issue — they might also become a political one, and this could create difficulties for sector ministries and national statistical offices which might perceive pressures to produce the "right" results. This again underlines the benefits of having independent judgements, from outside government, concerning the validity, objectivity and reliability of M&E findings (Mackay 2000:43).

Some of these indicators can only be fully quantified by means of impact studies between 5 and 10 years after completion of the project.

Using the Logframe indicators as a reporting tool can be problematic in a number of ways. Setting formal indicators at an early stage, and making them explicit in the framework can be good for accountability, however it also reduces flexibility and increases the tendency for indicators to become targets (Pasteur 2001).

Input indicators that measure the number of women as intended beneficiaries, identified through gender-disaggregated data on intended project beneficiaries, are widespread (Moser 1995:130).

7.3.6 The means of verification column of the Logframe 4x4 matrix

Means of Verification (MOVs) should clearly specify the expected source of the information for the indicator. Consider how the information will be collected (method), where it is available, who will be responsible, and the frequency with which the information should be provided. Indicators with complex information bases are often useless.

7.3.7 The assumption column of the Logframe 4x4 matrix

The lower the uncertainty that certain assumptions will hold true, the stronger the project design (TEAM Technologies 1994:4). Assumptions refer to conditions that could affect the progress or success of the project, but over which the project manager has no direct control e.g. price changes, rainfall etc. An assumption is a positive statement of a condition that must be met in order for project objectives to be achieved. A risk is a negative statement of what might prevent objectives being achieved. Assumptions are external conditions, which are outside the control of the project. The achievement of objectives depends on whether or not assumptions hold true (TEAM Technologies 1994:4).

7.3.8 Logframe halves

The upper half of the Logframe is DEMAND driven. This includes the Goal and Objective that are set with the client or beneficiary at project identification stage. The upper half is also known as the EFFECTIVENESS part, where the project is EVALUATED to determine whether the right project was done.

The lower half of the Logframe is SUPPLY driven. This includes the Activities and Output that are usually driven by the DFI (DBSA) at the project appraisal stage. The lower half is also known as the EFFICIENCY and OUTPUT QUALITY part where the project is MONITORED but also evaluated to determine whether the project was done right. W. Edwards Deming and Joseph M. Juran – were preaching quality in manufacturing before World War II (Patton 2002:146). In the 1930s, for example, Juran was applying concepts of empowered worker teams and continuous quality improvement to reduce defects (Patton 2002:146).

7.4 The Advantages of Logframe

Sartorius (1991) used the Logical Framework to offer a format for connecting levels of "impact with evidence." It is used during project planning to develop the overall design of a project (TEAM Technologies 1994:4). The Logframe is also used as a

tool to improve project implementation planning, monitoring and evaluation. The Logframe is a participatory planning tool (TEAM Technologies 1994:4).

- It ensures that fundamental questions are asked and weaknesses are analysed in order to provide decision makers with better and more relevant information.
- It guides systematic and logical analysis of the inter-related key elements, which constitute a well-designed project.
- It improves planning by highlighting linkages between project elements and external factors.
- It facilitates common understanding and better communication between decision makers, managers and other parties involved in the project.
- The use of the logical Framework and systematic monitoring ensures continuity of approach when original project staff is replaced.
- As more institutions adopt the Logical Framework concept, it may facilitate communication between governments and donor agencies.
- Widespread use of the Logical Framework format makes it easier to undertake both sectoral studies and comparative studies in general (TEAM Technologies 1994:2).

The World Bank (OED 2002b:9) agrees with TEAM Technologies (1994:2) and lists the following uses and advantages:

- Improving quality of project and programme designs—by requiring the specification of clear objectives, the use of performance indicators, and assessment of risks.
- Summarizing design of complex activities.
- Assisting the preparation of detailed operational plans.
- Providing objective basis for activity review, monitoring, and evaluation.
- Ensures that decision-makers ask fundamental questions and analyse assumptions and risks.
- Engages stakeholders in the planning and monitoring process.
- When used dynamically, it is an effective management tool to guide implementation, monitoring and evaluation (OED 2002b:9).

The cost of the Logframe is low to medium, depending on extent and depth of participatory process used to support the approach (OED 2002b:9).

7.5 The Limitations of Logframe

Although many practitioners find Logframes useful, they have also received considerable criticism from staff within development agencies; from trainers who try to convey appropriate methodologies for generating them; and from partners who are required to produce them in order to get funding (Pasteur 2001).

The Norwegian Development Agency already warned in 1990 that "Rigidity in project administration may arise when objectives and external factors specified at the outset are over-emphasised" (NORAD, 1990:12). The World Bank agrees with Pasteur but warned that if it is managed rigidly, it "stifles creativity and innovation" (OED 2002b:9).

"Hence it is an imposed procedure, thus maintaining a relationship of control and domination that does not reflect the Sustainable Livelihood (SL) principles of participation and partnership" (Pasteur 2001):

- Rigidity in project administration may arise when objectives and external factors specified at the outset are over-emphasised. This can be avoided by regular project reviews where the key elements can be re-evaluated and adjusted.
- The Logical Framework is a general analytic tool. It is policy-neutral on questions of income distribution, employment opportunities, access to resources, local participation, cost and feasibility of strategies and technology, or effects on the environment.

Training and follow-up are often required (OED 2002b:9). The Logical Framework is, therefore, only one of several tools to be used during project preparation, implementation and evaluation, and it does not replace target group analysis, time planning, impact analysis, etc (TEAM Technologies 1994:2). However, "If not updated during implementation, it can be a static tool that does not reflect changing conditions" (OED 2002b:9).

According to Patton (1997:235) the language of the Logframe can be confusing because what the logical framework calls a goal is what other models more commonly call mission; and purposes are similar to objectives or outcomes; outputs are short-term, end-of-project deliverables.

7.6 Computer models for Logframe

7.6.1 Computer tools needed for Logframes

The World Bank's Economic Development institute (EDI) and Team Technologies, Inc., a US management technology firm, developed a computer-based approach to upgrading managerial skills, especially team-based methods (EDI 1995:2).

The venture's innovative training tools are now becoming operational tools that can be used by project planners, managers, implementation teams, evaluators and development agencies to strengthen project impact and boost productivity (EDI 1995:2). The EDI/Team Technologies joint endeavour resulted in the development of software packages:

7.6.2 PC/Logframe

PC/Logframe was developed to meet critical requirements in managing project design. The software employs the Logical Framework matrix for project design (EDI 1995:3). PC/Logframe requires planners to set project objectives, define indicators of success, identify key activity groups, define critical project assumptions, identify means of verifying project accomplish and define resources required for implementation (EDI 1995:3).

7.6.3 PC/Logframe R&D

PC/Logframe R&D is a design and management tool for international development and research projects. PC/Logframe R&D can communicate a complex and costly project clearly and understandably on a single sheet of paper. It enables project managers to summarize the key features of project design before using project management scheduling software such a Primavera, TimeLine or Super Project (EDI 1995:3).

7.6.4 The PC/Team UP

The PC/Team UP methodology flows from the Logical framework Matrix and is used for building high-performance teams equipped with detailed implementation plans. PC/Team UP can be used at any time in the project cycle, but is best used at project launch (EDI 1995:4).

These packages do not provide all the answers to better project management, but they can provide the basic structures within which project teams can build their internal management fabric (EDI 1995:4)

7.7. Summarised guidelines for the 4x4 Logframe matrix (OEU, 2000)

Figure 7.2: Information to be included into the Logframe 16 cells (4x4)

Narrative Summary	Key Performance Indicators (KPI)	Means of Verification (MoV)	Critical Assumptions
Goal (Impact): Provide a one-sentence statement of the long-term strategic goal to which the project is designed to contribute.	Indicators of the sector-related goal are generally monitored and/or evaluated via various sector or country reports generated outside the project.	This column identifies where the information for verifying each indicator will be found, and the quantification process involved.	**(from Goal to Mission)** These assumptions often involve conditions, actions, or responses outside of the project and outside of the sector.
Project Objective (Outcomes): 1. From the standpoint of the beneficiary, provide a statement on client satisfaction, acceptance and utilisation at the end of the project as a result of the project outputs. 2. The purpose should express a single development aim that is realistic, specific and measurable.	1. These key indicators relate to the project's outcome. 2. Indicators at the project purpose level are not a restatement of those at the output level. 3. Collection of data for measurement of these indicators is generally funded by the project.	1. Indicators accompanying the project purpose are generally monitored via and quantified in various project reports. 2. Where data collection is required, specific mention should be made of methods and responsibilities, which may include inquiries from beneficiaries.	**(from Project Objective to Goal)** 1. Assuming that the project purpose is achieved, what additional assumptions are needed, if any, to justify the project's contribution to the stated overall objective? 2. These assumptions refer to the contribution(s) of additional projects, additional inputs, or additional responses from beneficiaries, which are critical to the achievement of the objective.
Project Outputs: 1. State here the end-of-project-milestone achieved by DBSA at the implementation of each component. 2. The DBSA project team is responsible for ensuring the delivery of the outputs as part of good design, and good implementation. 3. There should be one output statement for each corresponding project component and module.	1. Output indicators are verifiable in terms of QQT 2. These indicators generally include measures of cost efficiency. 3. For complex projects, a separate table may be used to provide a more detailed listing of specific indicators. 4. It is better to have only a few meaningful easily measured KPIs	1. Output indicators are generally monitored and/or evaluated via various project reports, supervision missions, and evaluation (mid-term & final). 2. Collection of data for measurement of these indicators is funded by the project.	**(From Outputs to Objectives)** 1. What additional assumptions are needed, if any, to achieve the project purpose? 2. These assumptions may encapsulate conditions, policies changes, or expected behaviours of beneficiaries that are necessary for project success. 3. These assumptions are critical to the achievement of the stated project purpose, but are outside the direct control of the project.
Project Activities 1. Activities can be clustered by component and contribute to a single project output. 2. List each project component as a main heading, followed by a list of the major sub-components. 3. Use sub-headings, or use a descriptive phrases	1. Activities will each have quantifiable elements (completion dates, numbers produced, days trained) 2. Again it is better to concentrate on the most important activities (those falling on the critical path), rather than expend time and resources collecting unnecessary detail.	**Project Inputs:** (budget for each component) 1. List component inputs in terms of the total cost of each component including contingencies 2. Inputs are generally monitored and evaluated via progress reports and disbursement reports.	**(from Activities to Outputs)** 1. Assuming that the components and activities listed in the far left box are implemented successfully, what additional assumptions are needed, if any, to achieve the stated outputs? 2. These assumptions are conditions outside the direct control of the project. 3. The project itself should not be spending money to achieve any of these conditions.

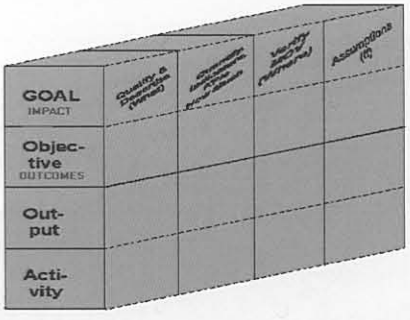
7.8 Logical model's range and scope

Projects and endeavours should not be "over motivated". It cannot be expected that one single project would save the world. When these endeavours fail to provide the envisaged impact, the Logframe is often blamed.

The Logframe is in the first place a design tool. If the incorrect information is fed into the Logframe, the results will be incorrect. The computer world created the term "Garbage in, garbage out" which is true for any framework, including the logical framework. In designing the project through the Logframe, the goal and objectives should not be stated too ambitiously. For the financier it might sound attractive, but for the evaluator to evaluate these statements a few years later becomes a dilemma.

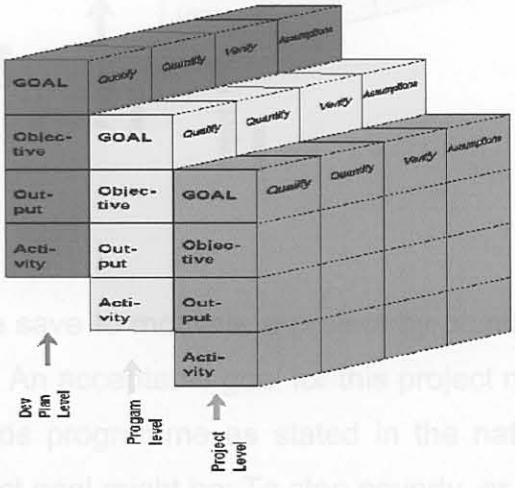
In order to point out the range of the Logframe, the 4x4 matrix needs to be drawn three-dimensionally:

Figure 7.3: Three-dimensional Logframe matrix.



The Logframe matrix presented in Figure 7.3 is the same as the ones presented in Figures 7.1 and 7.2. The reason for drawing it three-dimensionally is to illustrate its relationship between projects, programmes and national planning goals.

Figure 7.4: Logframes in relation to projects, programmes and national goals



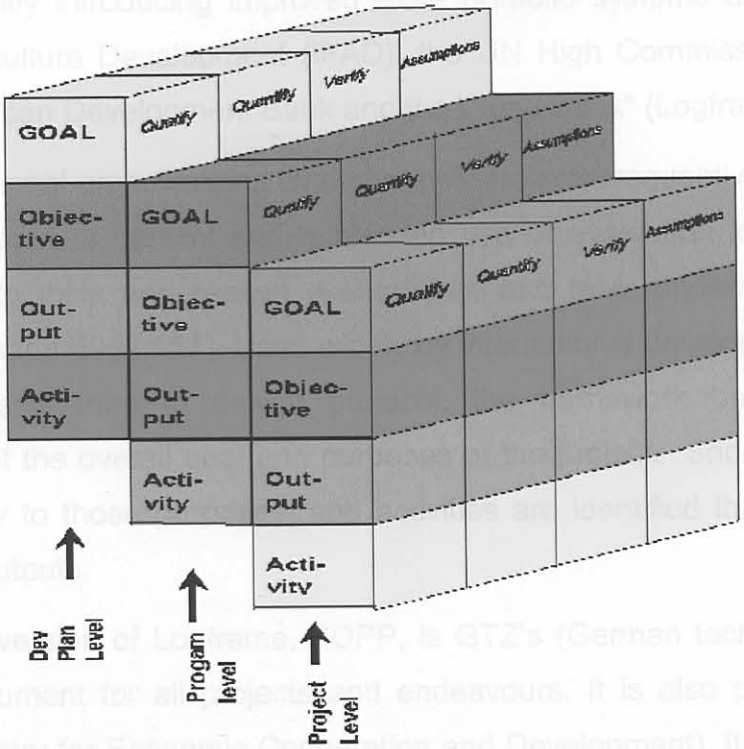
When combining the three Logframes for projects, programmes and national goals into one figure, it is clear that there is a hierarchical difference between them.

The goal of the project is only the outcome or objective of the programme, while the objective of the programme might only be one of the outputs of the national development plan.

For example: The goal of the national development plan might be Job Creation. In order to create jobs one of the many programmes might be a programme of erecting roads by means of block paving methods with its objective to be acceptable, cost effective and to be utilised by the communities. An entrepreneur might take up one of the projects in Township A. This output of erecting say 5km of paved roads is a project output into a larger programme objective impacting on the national goal.

Figure 7.5 illustrates this difference (Developed from TEAM Technologies 1994).

Figure 7.5: Logframe range limitations



It would therefore be save to motivate a project by pointing out its contribution within the above hierarchy. An acceptable goal for this project might be: To contribute to job creation via the roads programme as stated in the national development plan. An over-ambitious project goal might be: To stop poverty, or to halt unemployment.

7.9 International organisations prescribing logical models and frameworks

Logframes are used and prescribed for funding by the following Development Finance Institutions (DTIs): USAid (USA); CIDA (Canada); GTZ (Germany); AusAid (Australia); NORAD (Norway); DANIDA (Denmark); SIDA (Sweden); JICA (Japan); DFID (Britain); UNDP (United Nations); World Bank; AfDB (Africa); ADB (Asia); EU of Europe (OEU, 2000; TEAM Technologies, 1994:4; Pasteur 2001; World Bank 2002, ZOPP 1999). The World Bank prescribes logical models as the "bottom line" for the World Bank's "development effectiveness" (World Bank 2002b). The International Development Evaluation Association, IDEAS (2003:2) encourages an outcome-driven rather than an input-driven approach. Business plans can benefit from Logframes.

"We created TeamUp/PCM and established it at the British Department for International Development (DFID) and the British Council. We have also introduced MPDE at the African Development Bank, LogFRAME at the Pan American Health Organization, the LFA, and a variety of NGO's and government ministries worldwide. We are currently introducing improved PCM portfolio systems at the International Fund for Agriculture Development (IFAD), the UN High Commission for Refugees, the Inter American Development Bank and the World Bank" (Logframe 2002).

These international organisations evaluate their projects frequently. "While this thrust remains important, a parallel and reinforcing use of evaluation focuses on helping people learn to think and reason evaluatively, and how rendering such help can contribute" (Patton 2002:187). Used widely by international development agencies as a comprehensive map to design projects, the framework begins by requiring specification of the overall goal and purposes of the project. Short-term outputs are linked logically to those purposes, and activities are identified that are expected to produce the outputs.

The German version of Logframe, ZOPP, is GTZ's (German technical cooperation) planning instrument for all projects and endeavours. It is also prescribed by BMZ (German Ministry for Economic Cooperation and Development). Its baseline features are quality and process orientation. ZOPP incorporates GTZ's many years of cooperation experience (ZOPP 1999).

Not everybody is happy to fill in logical frameworks: "Correspondence between all parties during the preparation of the Logframes, including that from the donor itself, makes explicitly clear that the main driver behind the preparation of the Logframes

was the necessity of meeting the bureaucratic requirements of the donor" (Pasteur 2001). For this reason: "Prequalification of suppliers and contractors will be required for some contracts of the World Bank" (World Bank 2002).

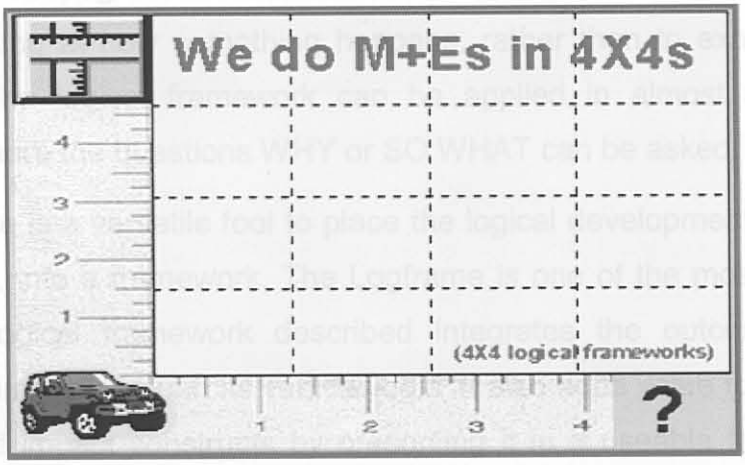
7.10 Logframe and M&E at the Development Bank (DBSA)

From the above it is clear that the Logframe matrix is a quantitative foundation for Monitoring and Evaluation (M&E). The M&E is a module of the CORE (Corporate Recording) System of DBSA. The M&E module has the facility to link into other system screens and utilise the information contained within those screens to assist in the monitoring and evaluation of projects on an ongoing basis. CORE is designed to streamline the M&E process.

From January 2003 it is compulsory for all development projects and programmes at DBSA to have a logical framework. The Operations Evaluation Unit (OEU) at DBSA is assisting project and programme managers to design their projects and programmes along the lines of logical development thinking. The move away from output designs to outcome designs in the DBSA's endeavours seems to be promising.

In order to propagate development logic, the Logframe and the 4x4 matrix OEU developed the following logo to attract attention:

Figure 7.6: Logframe 4x4 logo of OEU



The metaphor of the four-wheel drive vehicle points to the 4x4 matrix and the rough development terrain some of the projects find them both literally and figural. The 16-cell matrix behind it needs to be filled in before the CORE screens could be completed, while the ruler sign is the CORE activating button on the system and the question mark refers to the development effectiveness questions 'Why' and 'So what'.

7.11 Conclusions

Business plans could benefit tremendously from the Logframe concept. Managers and entrepreneurs already have to include Logframes in business plans where international or development funding is at stake in order to answer the WHY question.

Whether logical development thinking is called ZOPP, Logical Framework, Logframe, LogFrame, LogFRAME, TeamUp, PCM, Development Logic, Outcomes orientation or Reality testing, it has become the defacto standard for International Development project design and evaluation (Logframe 2002). No endeavour will ever again be regarded as complete only when the output is completed. This is a good thing as this will diminish the building of "white elephants".

For many bureaucrats, managers and even entrepreneurs who are process orientated the development logical thinking has this lesson: Processes are important, but they are only the first step towards outputs, outcomes and finally impact. A process can never be a goal in itself, unless the goal is to create unproductive jobs. Placing too much emphasis on processes (activities) might be like rocking chair motion: Movement without progress! It is a pity that so many performance appraisals are still placing so much emphasis on process. Auditing financial and process efficiency is important but should proceed to evaluating development effectiveness. The Logframe concepts could break these stereotypes.

Patton (2002:159) agrees with this conclusion when he states that a focus on process involves looking at how something happens, rather than to examining outputs and outcomes. The logical framework can be applied in almost all aspects of live, especially where the questions WHY or SO WHAT can be asked.

The Logframe is a versatile tool to place the logical development thinking, explained in Chapter 6, into a framework. The Logframe is one of the most flexible evaluation tools. The logical framework described integrates the outcomes construct with outputs and impact through its vertical logic. It also adds value to the activity, output, outcome and impact constructs by presenting it in a useable framework integrated with qualitative and quantitative aspects through its horizontal logic.

The logical framework will be illustrated in two case studies to follow in Chapters 10 and 11. The main constructs within the Logframe namely 'Outcomes: Acceptability and Utilisation' will now be tested empirically in Chapters 8 and 9.

Chapter 8: A survey to analyse the outcomes of women construction entrepreneurs

8.1 Introduction

The aim of this chapter is:

- To apply the Logical thinking approach of evaluation, specifically the Outcomes aspect's 'Acceptability' element, to women construction entrepreneurs; by
- performing an opinion survey of contract and business opportunity providers, service providers and public sector officials regarding the acceptability of the skills and outcome qualities of SMME construction entrepreneurs, both male and female.
- To develop an instrument to measure the above based on the evaluation constructs developed from the literature and the 13 SMME construction entrepreneurship constructs developed for the purpose of this study.

8.2 Research design and methodology for this chapter

8.2.1 Statistical methodology

The questionnaire was circulated amongst delegates who qualified for the four groups (See Section 8.2.5) at SAWiC meetings. For the purpose of this study, it is classified as a designated study of SAWiC delegate universum. It can also be regarded as a sample (although not a random sample) of the construction sector. As this is not a random sample survey, the sampling tests were therefore not done. According to Baker (2000:4) Quasi–experimental (non-random) methods can be used to carry out an evaluation when it is not possible to construct treatment and comparison groups through experimental design. Four versions of the questionnaire were developed and pilot tested before the final one was used. After the questionnaire was filled out a short interview was held with each respondent. This provided some qualitative information and ensured that all the questions were answered.

8.2.2 Managerial question (What is this questionnaire all about?)

The managerial question is: Do the providers of construction business opportunities and services in the different sectors accept the skills and outcomes of men and women construction entrepreneurs?

8.2.3 Respondents targeted (Who filled out the questionnaire?)

This questionnaire was directed to government officials, development finance institution's staff, main contractors, service providers and employers in the public and private sector who are responsible for decision-making regarding the appointment of contractors or sub-contractors, for awarding public or private sector projects and tenders, and for the allocation of any construction related business opportunities to SMME entrepreneurs.

8.2.4 Responses used (How many?)

A total number of 71 questionnaires were distributed amongst the targeted populations. Only 62 could finally be used. After the questionnaire was filled out, the author checked whether the respondent filled in all the questions, before the respondent left. The 9 questionnaires that could not be used were taken home by the respondents and sent back by mail, but had too many open spaces to be used.

8.2.5 Respondents per sector (Where are the respondents coming from?)

The 62 respondents who gave their opinions can be divided into the following sectors:

S1. Contract providers and officials of the Department of Public Works (DPW) responsible for adjudicating business opportunities, mainly in the form of tenders, to SMMEs in the construction sector. = 18 respondents.

S2. Local government staff, including councillors sitting on boards, responsible for handling feedback from clients regarding the quality of work, level skills and outcomes of SMMEs in the construction sector. = 11 respondents.

S3. NGOs, Financial and Training institutions providing services to both male and female entrepreneurs in the construction sector. = 12 respondents.

S4. Contract-providers at private sector construction companies responsible for allocating business opportunities in the form of sub-contracts to SMMEs in the construction sector. = 21 respondents.

Total all sectors n = 62 respondents.

Originally the sector classification included only the public sector and the private sector, but when the filled out questionnaires were considered for sector classification it was realised that the above four classifications will be more suitable. E.g. the training institutions and the financial banks are both private and public sector, and they work on a service provider level with the entrepreneurs, while the local

authorities, councillors and building inspectors deal more with complaints and feedback from clients on the construction work of the male and female construction entrepreneurs.

8.2.6 Respondents per gender (Of which gender are the respondents?)

The 62 respondents who gave their opinions can be divided into

Male = 23;

Female = 39

8.2.7 Development of questions in questionnaire

The questionnaire consists of 69 questions that were extracted and developed from the following construction industry sources and references:

- Association of SA Quantity Surveyors (ASAQS), Model Bill for Small or Simple Buildings (first edition); http://www.asaqs.co.za (ASAQS, 2001). Their model bill comprise of the elements involved in trades, building and construction.
- Building Industries Federation South Africa (BIFSA) State of the Civil Industry. http://www.bifsa.org.za (BIFSA, 2002). This source provides a comprehensive analysis of the important issues of the construction sector in relation to the economy.
- Construction Education and Training Authority (CETA) http://www.ceta.org.za (CETA, 2002). This source gave a comprehensive overview of the different learner-ships in building and construction.
- South African Women in Construction (SAWiC) Membership Database. http://www.dbsa.org/Sawic (Verwey 2002). This database of over 600 members gave an indication of the construction actual activities of women construction entrepreneurs.

8.2.8 Example of the outlay of the questionnaire

On a scale of 1 to 4, how would you rate the issues regarding Female and Male construction entrepreneurs? (Women in Construction vs. Men in Construction)

Please encircle O your choice:

1= Bad & not acceptable; **2**=Needs improvement; **3**=Good; **4**=Excellent

	Entrepreneurs: or Contractors:	**Female Women**	**Male Men**
1.	**Education, training and skills background**	1 2 3 4	1 2 3 4

8.3 Statistical tools used for the confirmation of validity and reliability

8.3.1 Cronbach Alpha analysis on deleted results of each question

Cronbach's Alpha is regarded as one of the most important reliability estimates. It measures internal consistency and the degree to which instrument items are homogeneous and reflect the same underlying construct(s) (Cooper & Schindler 2001:216-217). A Cronbach Alpha value of above 0.5 is regarded as an indication of reliability. From the 69 questions the 13 constructs in Table 8.1 were derived to measure the contract providers' acceptance of the skill and outcome levels of both women and men construction entrepreneurs. Should one question be deleted from the group, the Cronbach Alpha values in Table 8.1 present the value that the rest of the questions in the group will accept.

Table 8.1 Questions from which the Constructs were developed and Cronbach Alpha deleted results of the individual questions

	Female	Male
Construct1. Understanding plans, drawings, site layouts and levels		
Understanding site plans and drawings	0.895	0.948
Levelling and site readiness	0.889	0.947
Layout of buildings on site	0.876	0.944
Understanding architect plans	0.858	0.940
Foundations and engineering knowledge	0.875	0.946
Construct 2. Brickwork, bricklaying, plastering and 'wet-work'		
Brickwork skills	0.874	0.947
Bricklaying skills	0.867	0.951
Plastering skills	0.866	0.957
Walling	0.851	0.948
Cement flooring and finishing skills	0.904	0.951
Construct 3. General carpentry, doors, ceiling and roofing		
General carpentry skills	0.883	0.950
Hanging of doors, cupboards	0.888	0.951
Roof timbering	0.869	0.939
Ceilings	0.874	0.936
Roof covering	0.910	0.958
Construct 4. Plumbing, Drainage and piping		
Plumbing skills	0.899	0.961
Drainage	0.892	0.968
Fitting bathrooms	0.911	0.954
Water piping	0.916	0.960
Construct 5. Electricity, tubing, wiring and lighting		
Electricity and lighting	0.921	0.957
Electric tubing	0.903	0.956
Electric wiring	0.913	0.949
Hot water geyser installations	0.943	0.977
Construct 6. Wall tiling, glazing, painting and floor tiling		
Wall Tiling	0.901	0.956
Windows and glazing	0.926	0.950

Painting skills	0.906	0.945
Carpets and floor-tiling	0.910	0.937
Construct 7. Paving, road works, curbing and gabion		
Paving skills	0.928	0.962
Curbing and sidewalks	0.890	0.954
Road works	0.903	0.951
Storm water and culverts	0.890	0.950
Gabions and retaining of roadsides	0.920	0.961
Construct 8. Road maintenance, cleaning and grass cutting		
Road maintenance	0.847	0.908
Grass cutting along sides of roads	0.801	0.890
Cleaning of paved areas	0.803	0.902
Fencing and gates	0.865	0.908
Construct 9. Traditional African building, thatching, painting and flooring		
Traditional African building skills	0.900	0.886
Traditional thatching skills	0.913	0.882
Traditional painting of walls	0.902	0.888
Traditional flooring skills	0.892	0.880
Erection of traditional tourist attractions	0.922	0.884
Construct 10. General Education, language and terminology		
Language proficiency	0.928	0.935
Tender documentation concepts	0.922	0.929
Understanding technical terminology	0.924	0.927
Understanding procedures	0.919	0.929
Empowerment language and legislation	0.915	0.929
Procurement language procedures	0.918	0.927
Awareness of health, safety and HIV	0.929	0.943
Awareness of environmental sustainable development	0.923	0.937
Construct 11. General managerial, finance and business		
Financial management	0.915	0.947
Project management	0.921	0.934
Personnel and resource management	0.933	0.931
Turnover and cash flow projections	0.914	0.924
Bridging finance and guarantees	0.932	0.932
Construct 12. Future directed, innovation, creativity, business planning		
Business plans	0.886	0.880
Creativity and innovation	0.860	0.897
Competitive edging	0.849	0.868
Culture and climate of business entity	0.839	0.867
Compliance regarding time frames & deadlines	0.877	0.890
Construct 13. Tender, pricing, legal, tax and procurement		
Managing tender documentation	0.951	0.963
Understanding procurement documentation	0.951	0.962
Tendering and Pricing	0.953	0.962
Interpreting prescriptions of contract providers	0.952	0.963
Understanding evaluation theory and practice	0.952	0.962
Legal requirements on enterprise status	0.951	0.963
Tax clearance documentation	0.953	0.965
Delegated authority to sign	0.952	0.965
Providing track-record, skill profiles & résumés	0.950	0.964
Providing information on marketing	0.951	0.965

8.3.2 Cronbach Alpha analysis of the constructs

The Cronbach Alpha results of all the constructs are far above the 0.5 level that is required for reliability. The Cronbach Alpha results of each group of questions are in some cases higher than the individual deleted values of Table 8.1, which means that all the questions within each group are valid and reliable and is forming valid and reliable constructs. The constructs are thus measuring what they are supposing to measure, indicating a good and reliable instrument.

Table 8.2 Cronbach Alpha results of the constructs

Con-stuct No	Constructs developed: 69 questions (F= Female; M= Male) Acceptability of SMMEs on skills and outcomes regarding:	Gender	Cronbach Alpha values
C1	Understanding plans, drawings, layouts & levels	Female Male	0.901 0.956
C2	Brickwork, bricklaying, plastering and 'wet-work'	Female Male	0.896 0.960
C3	General carpentry, doors, ceiling and roofing	Female Male	0.906 0.957
C4	Plumbing, drainage and piping	Female Male	0.927 0.970
C5	Electricity, tubing, wiring and lighting	Female Male	0.940 0.969
C6	Wall tiling, glazing, painting and floor tiling	Female Male	0.932 0.960
C7	Paving, road works, curbing and gabion	Female Male	0.924 0.964
C8	Road maintenance, cleaning & grass cutting	Female Male	0.867 0.925
C9	Traditional African building, thatching, painting & flooring	Female Male	0.923 0.905
C10	General Education, language and terminology	Female Male	0.931 0.940
C11	General managerial, finance and business	Female Male	0.938 0.944
C12	Future directed, creativity innovation, business plans	Female Male	0.887 0.902
C13	Tender, pricing, legal, tax and procurement	Female Male	0.956 0.967

8.3.3. Factor analysis on the constructs

Established statistical tools such as Factor Analysis help determine the construct adequacy of a measuring instrument. Factors may be considered non-metric

independent variables in that they organise the data into groups. Factor analysis looks for patterns among the variables to discover if an underlying combination of the original variables (a factor) can summarise the original set. Factor analysis also attempts to reduce the number of variables and discover the underlying constructs that explain the variance (Cooper & Schindler 2001:214, 574, 575, 591, 604).

In order to confirm the validity of the grouping of the questions a factor-analysis was done of the instrument:

Table 8.3 Factor analysis of the constructs, male (M) and female (F)

Con-stuct No	13 Constructs developed from the 69 questions (F= Female; M= Male) Acceptability of SMMEs on skills and outcomes re:	Mineigen Criterion: Factors Reported:	Variance explained by factor	Commu-nalities differ from:	Commu-nalities differ to: (highest)
C1	Understanding plans, drawings, layouts & levels	1 F 1 M	3.59 4.27	0.62 0.83	0.83 0.89
C2	Brickwork, bricklaying, plastering and 'wet-work'	1 F 1 M	3.56 4.32	0.53 0.81	0.75 0.90
C3	General carpentry, doors, ceiling and roofing	1 F 1 M	3.64 4.27	0.57 0.77	0.82 0.93
C4	Plumbing, drainage and piping	1 F 1 M	3.28 3.68	0.78 0.89	0.87 0.95
C5	Electricity, tubing, wiring and lighting	1 F 1 M	3.39 3.68	0.76 0.86	0.91 0.96
C6	Wall tiling, glazing, painting and floor tiling	1 F 1 M	3.33 3.60	0.78 0.87	0.87 0.93
C7	Paving, road works, curbing and gabion	1 F 1 M	3.85 4.38	0.63 0.83	0.88 0.92
C8	Road maintenance, cleaning & grass cutting	1 F 1 M	2.86 3.29	0.61 0.79	0.80 0.86
C9	Traditional African building, thatching, painting & flooring	1 F 1 M	3.86 3.63	0.68 0.70	0.85 0.74
C10	General Education, language and terminology	1 F 1 M	5.54 5.68	0.56 0.49	0.81 0.81
C11	General managerial, finance and business	1 F 1 M	4.01 4.09	0.74 0.78	0.86 0.87
C12	Future directed, creativity innovation, business plans	1 F 1 M	3.47 3.62	0.55 0.64	0.82 0.80
C13	Tender, pricing, legal, tax and procurement	1 F 1 M	7.28 7.70	0.69 0.70	0.76 0.83

Some of the constructs above were combined in an attempt to reduce the total number of constructs. In these cases the 'Mineigen Criterion of Factors Reported' gave two factors, which was not acceptable. Only questions 6.1 to 6.10 that were originally meant to be two constructs, were combined successfully, to analyse one factor as described in Construct 13.

8.4 Statistical tools applied in analysing the responses

8.4.1 Computer programme

The data was analysed by using SAS computer programme (SAS 1988). To serve the purpose of this research, descriptive and inferential statistics were used to analyse the data.

8.4.2 Means and standard deviations

Arithmetic means ($\bar{X}$) and standard deviations (S) are reported in this research.

The arithmetic mean ($\bar{X}$) comprises a point, which coincides with the sum of the scores divided by the number of scores. The standard deviation (S) shows the variation about the average of the data.

8.4.3 T-tests

The t-test is used to determine the statistical significance between a sample distribution mean and a parameter. The t has more tail area than that found in the normal distribution. Its measurement level is interval and ratio and can be used in the One-Sample Case and the Two-Sample Case for related samples and independent samples. The t distribution is used especially when the sample size is less than 30 (Cooper & Schindler 2001: 498).

$$t = \frac{\bar{X} - \mu}{S / \sqrt{n}}$$

T-tests were used in this study to determine the significance of the difference between the averages of the answers given by contract providers about male and female entrepreneurs. This test was also applied to determine whether a significant difference existed between the opinions of male and female contract providers about the male and female entrepreneurs. The assumption underlying the t-test is that the population is distributed normally, but needs not hold when the distribution deviates not far from a normal distribution whenever sample size is more than 10 (Rothmann, 1998:183). The t-test is used to determine whether two means are sufficiently different. This test is applicable for the analysis of two-group designs involving either random group design or natural group design. Because the independent samples t-

test is based on the difference between the two sample means, the expected value of t when the independent variable has had no effect, is zero. If the independent variable has had an effect, the t will become increasingly smaller than zero as the mean difference increases. If the smaller mean is subtracted from the larger mean, the t will become increasingly larger than zero. The difference may be taken in either direction, but note whether it is a positive or negative t value. Because sampling error van never be eliminated, the obtained t must be compared with a critical value from the appropriate t-distribution to determine if it is statistically significant (Rothmann 1998:183).

8.4.4 Paired t-tests

Paired t-tests are used to determine the differences between males and females in such a way that the responses on each question are paired to prevent different questions in the group to cancel out one another.

8.4.5 Probability Values (*p* values) measuring statistical significance

The *p*-value is the probability of observing a sample value as extreme as, or more extreme than, the value actually observed, given that the null hypothesis is true. This area represents the probability of a Type 1 error that must be assumed if the null hypothesis is rejected. The *p*-value is compared to the significance level (α) and on this basis the null hypothesis is either rejected or not rejected. If the *p* value is less than the significance level, the null hypothesis is rejected (if *p* value< α, reject null). If *p* is greater than or equal to the significance level, the null hypothesis is not rejected (if *p* value> α, don't reject null). If the *p* value is less than 0.05, the null hypothesis will be rejected. The *p* value is determined by using the standard normal table. The small *p* value represents the risk of rejecting the null hypothesis. It is the probability of a Type 1 error if the null hypothesis is rejected (Cooper & Schindler 2001:494).

A difference has statistical significance if there is good reason to believe the difference does not represent random sampling fluctuations only. While it is of statistical significance, whether it is of practical significance is another question. If the controller judges that this variation has no real importance, then it is of little practical significance (Cooper & Schindler 2001: 486, 487).

Results will be regarded as significant if the p-values are smaller than 0.05, because this value is used as cut-off point in most behavioural science research.

8.4.6 Cohen-d values measuring practical significance

The practical significance of the results (d-values) will be computed when the p-value was statistically significant ($p \leq 0.05$). According to Steyn (1998:13), Cohen (1977) recommends the following guidelines for practical significance:

d = 0.2 smaller effect;
d = 0.5 medium effect;
d = 0.8 large effect (Steyn, 1998:13):

$$\text{Cohen } d = \frac{\mu_1 - \mu_2}{\sigma} \quad \text{(Cohen 1988)}$$

$$\text{or } d = \bar{X} / S \quad \text{(Rothmann, 1998:184)}$$

8.4.7 ANOVA (Analysis of variance)

The statistical method for testing the null hypothesis, that the means of several populations are equal, is analysis of variance (ANOVA). The distance from one value to its group's mean should be independent of the distances of other values to that mean (independence of error). ANOVA is reasonably robust and minor variations from normality and equal variance are tolerable. ANOVA uses squared deviations of the variance.

The test statistic for ANOVA is the *F* ratio. It compares the variance from the last two sources:

$$F = \frac{\text{Between-groups variance}}{\text{Within-groups variance}} = \frac{\text{Mean square}_{\text{between}}}{\text{Mean square}_{\text{within}}}$$

$$\text{Mean square}_{\text{between}} = \frac{\text{Sum of squares}_{\text{between}}}{\text{Degrees of freedom}_{\text{between}}}$$

$$\text{Mean Square}_{\text{within}} = \frac{\text{Sum of squares}_{\text{within}}}{\text{Degrees of freedom}_{\text{within}}}$$

The *F* distribution determines the size of ratio necessary to reject the null hypothesis for a particular sample size and level of significance (Cooper & Schindler, 2001:509).

8.5 Hypotheses

In each case the alternative hypotheses H_a will be the negative or the opposite of the null hypotheses H_0.

8.5.1 Construct 1: Understanding plans, drawings, layouts & levels

$H_0C1.1$: There is a significant difference in the acceptability regarding skills and outcomes on the **understanding of plans, drawings, layouts & levels**

between male and female construction entrepreneurs as judged by contract and service provides.

$H_0C1.2$: There is a significant difference in the judgement between male and female contract and service provides' acceptability regarding skills and outcomes on the **understanding of plans, drawings, layouts & levels** of male and female construction entrepreneurs.

$H_0C1.3$: There is a significant difference in the judgement between the four categories of contract and service provides' acceptability regarding skills and outcomes on the **understanding of plans, drawings, layouts & levels** of male and female construction entrepreneurs.

Instead of running 39 hypotheses (13x3) the following table will summarise the 13 constructs each with its three tests:

Hypothesis summary:

Section	H_0 (+) & H_a (-)	There is a significant difference in...:	.1 between men & women entrepr. (Paired t)	.2 between male & female respon. (Paired t)	.3 between the four sectors (ANOVA)
8.5.1	H_0C1	Understanding plans, drawings, layouts & levels...	$H_0C1.1$	$H_0C1.2$	$H_0C1.3$
8.5.2	H_0C2	Brickwork, bricklaying, plastering and 'wet-work'...	$H_0C2.1$	$H_0C2.2$	$H_0C2.3$
8.5.3	H_0C3	General carpentry, doors, ceiling and roofing...	$H_0C3.1$	$H_0C3.2$	$H_0C3.3$
8.5.4	H_0C4	Plumbing, drainage and piping	$H_0C4.1$	$H_0C4.2$	$H_0C4.3$
8.5.5	H_0C5	Electricity, tubing, wiring and lighting...	$H_0C5.1$	$H_0C5.2$	$H_0C5.3$
8.5.6	H_0C6	Wall tiling, glazing, painting and floor tiling...	$H_0C6.1$	$H_0C6.2$	$H_0C6.3$
8.5.7	H_0C7	Paving, road works, curbing and gabion...	$H_0C7.1$	$H_0C7.2$	$H_0C7.3$
8.5.8	H_0C8	Road maintenance, cleaning & grass cutting...	$H_0C8.1$	$H_0C8.2$	$H_0C8.3$
8.5.9	H_0C9	Traditional African building, thatching, painting & flooring	$H_0C9.1$	$H_0C9.2$	$H_0C9.3$
8.5.10	H_0C10	General Education, language and terminology...	$H_0C10.1$	$H_0C10.2$	$H_0C10.3$
8.5.11	H_0C11	General managerial, finance and business...	$H_0C11.1$	$H_0C11.2$	$H_0C11.3$
8.5.12	H_0C12	Future directed, creativity innovation, business plans...	$H_0C12.1$	$H_0C12.2$	$H_0C12.3$
8.5.13	H_0C13	Tender, pricing, legal, tax and procurement...	$H_0C13.1$	$H_0C13.2$	$H_0C13.3$

8.6. Statistical analysis of the constructs

To portray an overview, the acceptability (opinions on skills and outcomes) of all the respondents will firstly be presented on the male and female construction entrepreneurs for each construct by using the mean and standard deviation. On a 4 point Likert-scale the middle value is 2.5, therefore a mean above 2.5 will be regarded as good and below 2.5 as not good. Secondly, the differences between the male and female entrepreneurs are presented as judged by all 62 respondents by using the paired t-test (P-values) and Cohen-d analysis. Thirdly the acceptability of the 39 female and 23 male respondents on the difference between male and female construction entrepreneurs is presented by using the paired t-test and Cohen-d values. Lastly the acceptability of the different sectors will be analysed by using an ANOVA. C1 is fully described while only the essence of C2 to C13 will be captured.

8.6.1 Construct 1: Understanding plans, drawings, layouts & levels

Table 8.4: Means, Standard deviation and t-test on construct 1: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.709	0.868
Female	62	1.755	0.616

Source: SAS worksheets T1 pp15-16

The 62 respondents are of the opinion that male construction entrepreneurs understand, although not very well, technical drawings (2.709 out of 4), while females only received a Mean of 1.755 on this construct, which means that the respondents felt that female construction entrepreneurs do not understand technical drawings.

Table 8.5: Paired t-test on construct 1: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.955	0.757	< 0.0001*	1.3 +++

Source: SAS worksheets T12 p3

* indicates statistical significance
+++ indicates practical significance

The paired M-F difference in means is 0.955 and the p-value of <0.0001 indicates a significant statistical difference of how the 62 respondents felt about male and female construction entrepreneurs. The Cohen-d value of 1.3 indicates a large effect and practical significance. This indicates that the 62 respondents felt that males are much better than females in this construct, C1: Understanding technical drawings.

Table 8.6: Paired t-test on construct 1: The opinions of the 39 female and 23 male respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.722	0.710	<0.0001*	1.03 +++
Females on M-F	39	1.092	0.759	<0.0001*	1.44 +++

Source: SAS worksheets T11 p1-2

* indicates statistical significance
+++ indicates practical significance

The male respondents felt that male construction entrepreneurs are significantly better than female construction entrepreneurs regarding Construct 1. The difference in the means is 0.722 and the P-value <0.0001 indicates a significant statistical difference how males judge male and female entrepreneurs. The Cohen-d value of 1.03 indicates practical significance as well as a large effect.

An interesting finding is that the female respondents also feel that male construction entrepreneurs are much better than female construction entrepreneurs regarding construct 1. The difference in means is a large 1.092, the p-value of <0.0001 indicates a statistical significant difference, and the Cohen-d value of 1.44 indicates practical significance as well as a large effect.

Table 8.7: ANOVA for Construct 1:
C1 = Understanding plans, drawings, site layouts and levels

Sector classification of respondents	N	$\bar{X}$ m-f	S m-f	P	Tukey	d
S1. Officials at DPW allocating and adjudicating tenders to construction SMMEs	18	0.76	0.80	0.17	-	-
S2. Local government officials handling feedback from clients about construction entrepreneurs	11	1.05	0.61			
S3. Financial & training institutions providing services to construction SMMEs and entrepreneurs	12	0.72	0.84			
S4. Private sector construction companies providing opportunities to entrepreneurs (Sub-contracts)	21	1.21	0.70			

The four sectors did not differ statistically significantly because the P-value is 0.17 which is not smaller than 0.05. The Tukey intervals did not indicate a statistical difference between sectors. No Cohen-d values were thus calculated.

8.6.2 Construct 2: Brickwork, bricklaying, plastering and 'wet-work'

Table 8.8: Means and Standard deviation on construct 2: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	3.048	0.725
Female	62	2.042	0.635

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

With a mean well above the middle-value of 2.5 (at 3.048) the respondents regarded males as good with brickwork and plastering and women bad (at 2.042).

Table 8.9: Paired t-test on construct 2: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	1.006	0.717	<0.0001*	1.4 +++

* indicates statistical significance, +++ indicates practical significance

According to Table 8.9 there is a statistical significant difference (P<0.0001) as well as a practical significant difference (d = 1.4 = large effect). This indicates that males are much better than females with bricks and mortar, or work known as 'wet-work'.

Table 8.10: Paired t-test on construct 2: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.870	0.646	<0.0001*	1.3 +++
Females on M-F	39	1.087	0.752	<0.0001*	1.4 +++

* indicates statistical significance, +++ indicates practical significance

Both the male and female respondents felt that males are much better with C2. Interesting finding is that the outcomes and skills of female entrepreneurs in construction 'wet-work' are far less acceptable to females than to males, as pointed out by the mean difference and Cohen-d values.

Table 8.11: ANOVA for Construct 2 :
C2 = Brickwork, bricklaying, plastering and 'wet-work'

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.79	0.67	0.20	-	-
S2. Local government officials ...	11	1.33	0.71			
S3. Financial & training instit ...	12	0.87	0.70			
S4. Private sector construction co ...	21	1.10	0.74			

No statistical significant difference could be detected on C2 amongst the different sectors regarding their acceptability of male and female construction entrepreneurs.

8.6.3 Construct 3: General carpentry, doors, ceiling and roofing

Table 8.12: Means and Standard deviation on construct 3: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	3.045	0.786
Female	62	1.813	0.629

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

With a mean of 3.045 (out of 4) the respondents regarded males as good with carpentry work and women even worse than in Construct 2, with only 1.813. This difference is of both statistical and practical significance, according to Table 8.13.

Table 8.13: Paired t-test on construct 3: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	1.232	0.810	<0.0001*	1.5 +++

* indicates statistical significance, +++ indicates practical significance

Table 8.14: Paired t-test on construct 3: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	1.078	0.762	<0.0001*	1.4 +++
Females on M-F	39	1.323	0.833	<0.0001*	1.6 +++

* indicates statistical significance, +++ indicates practical significance

The findings of C3 are similar to C2, as the female carpentry entrepreneurs are far less acceptable than men, and even C3 females are less acceptable to females!

Table 8.15: ANOVA for Construct 3:
C3 = General carpentry, doors, ceiling and roofing

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.80	0.67	0.02*	S1 & S2	1.11 +++
S2. Local government officials ...	11	1.65	0.79			
S3. Financial & training instit ...	12	1.20	0.87			
S4. Private sector construction co...	21	1.40	0.76			

In this case the four sectors differ statistically significantly because the P-value is 0.02 which is smaller than 0.05. The Tukey intervals point the difference out to be mainly between S1 and S2 and the Cohen-d value indicates practical significance. This means that S1, the officials of the Department of Public Works (DPW) adjudicating tenders and business opportunities are far more negative than S2 (local government officials handling feedback from clients) about C3 women entrepreneurs.

8.6.4 Construct 4: Plumbing, drainage and piping

Table 8.16: Means and Standard deviation on construct 4: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.944	0.899
Female	62	1.685	0.659

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

The 62 respondents regarded males as good with plumbing, with a mean of 2.944, and women bad with a mean of only 1.685. The difference in the two means is a sizeable 1.258, the P-, and d-values indicate statistical and practical significance.

Table 8.17: Paired t-test on construct 4: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	1.258	0.889	<0.0001*	1.4 +++

* indicates statistical significance, +++ indicates practical significance

Table 8.18: Paired t-test on construct 4: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	1.130	0.825	<0.0001*	1.4 +++
Females on M-F	39	1.333	0.927	<0.0001*	1.4 +++

* indicates statistical significance, +++ indicates practical significance

This sizeable difference in acceptability of men and women plumping entrepreneurs does not differ between the male and female respondents, as in both cases the statistical and practical difference is significant, indicated by the P- and d-values.

Table 8.19: ANOVA for Construct 4:
C4 = Plumbing, Drainage and piping

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	1.03	0.97	0.26	-	-
S2. Local government officials ...	11	1.70	0.92			
S3. Financial & training instit ...	12	1.27	0.87			
S4. Private sector construction co ...	21	1.21	0.78			

No statistical significant difference could be traced on C4 amongst the different sectors regarding their acceptability of male and female plumbing entrepreneurs. In each sector the difference in the means is more than 1. This means that all the sectors accept men far above women plumbing entrepreneurs.

8.6.5 Construct 5: Electricity, tubing, wiring and lighting

Table 8.20: Means and Standard deviation on construct 5: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.964	0.890
Female	62	1.726	0.730

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

The means for the Electricity Construct C5 is more or less the same as for Plumbing C4. Women electricity entrepreneurs are not accepted, and the difference in this acceptability is a large 1.238 mean difference. The p-value of <0.0001 indicates a statistical significant difference, and the Cohen-d value of 1.3 indicates practical significance as well as a large effect.

Table 8.21: Paired t-test on construct 5: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	1.238	0.927	<0.0001*	1.3 +++

* indicates statistical significance, +++ indicates practical significance

Table 8.22: Paired t-test on construct 5: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	1.196	0.901	<0.0001*	1.3 +++
Females on M-F	39	1.263	0.952	<0.0001*	1.3 +++

* indicates statistical significance, +++ indicates practical significance

Not even the female respondents accept women electrical entrepreneurs, because the difference in means is larger for female respondents than male respondents. Similar to the plumbing construct C4, the p-value of <0.0001 of C5 indicates a statistical significant difference, and the Cohen-d value of 1.3 indicates practical significance as well as a large effect.

Table 8.23: ANOVA for Construct 5:
C5 = Electricity, tubing, wiring and lighting

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.78	0.79	0.07	-	-
S2. Local government officials ...	11	1.61	1.11			
S3. Financial & training instit ...	12	1.35	0.95			
S4. Private sector construction co ...	21	1.37	0.83			

There is no statistical or practical significance between the sectors on C5.

8.6.6 Construct 6: Wall tiling, glazing, painting and floor tiling

Table 8.24: Means and Standard deviation on construct 6: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	3.052	0.858
Female	62	2.081	0.782

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Men seem to be acceptable tilers, glazers and painters while women are not.

Table 8.25: Paired t-test on construct 6: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.972	0.827	<0.0001*	1.2 +++

* indicates statistical significance, +++ indicates practical significance

Although the mean difference is not as big as the previous two constructs, women tiling and painting entrepreneurs are not accepted, and the difference in this acceptability as indicated by the mean difference is also a sizeable 0.972. The p-value of <0.0001 indicates a statistical significant difference, and the Cohen-d value of 1.2 indicates practical significance as well as a large effect.

Table 8.26: Paired t-test on construct 6: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.946	0.846	<0.0001*	1.1 +++
Females on M-F	39	0.987	0.827	<0.0001*	1.2 +++

* indicates statistical significance, +++ indicates practical significance

When analysing the mean difference, again female respondents agreed slightly more than males that women entrepreneurs in C6 are not acceptable. In both cases the p-value of <0.0001 indicates a statistical significant difference, and the Cohen-d values of 1.1 and 1.2 indicates practical significance as well as a large effect.

Table 8.27: ANOVA for Construct 6:
C6 = Wall tiling, glazing, painting and floor tiling

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.64	0.75	0.15	-	-
S2. Local government officials ...	11	1.27	1.02			
S3. Financial & training instit ...	12	1.21	0.95			
S4. Private sector construction co ...	21	0.96	0.64			

No statistical significant difference could be reported on the sectors in C6.

8.6.7 Construct 7: Paving, road works, curbing and gabion

Table 8.28: Means and Standard deviation on construct 7: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.823	0.909
Female	62	1.813	0.709

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Only the men's paving and roadwork skills and outcomes seem to be acceptable, while the mean for women paving entrepreneurs of 1.8 is far below the middle-value of 2.5, indicating that their skills and outcomes on this construct are not acceptable.

Table 8.29: Paired t-test on construct 7: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	1.010	0.990	<0.0001*	1.0 +++

* indicates statistical significance, +++ indicates practical significance

The difference in the means is more than 1 and there is statistical significant as well as a practical significant difference between the two.

Table 8.30: Paired t-test on construct 7: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.852	0.878	0.0001*	1.0 +++
Females on M-F	39	1.103	1.050	<0.0001*	1.1 +++

* indicates statistical significance, +++ indicates practical significance

It is interesting to note that not even the female respondents accept women paving and road entrepreneurs, because the difference in means is larger for female respondents than male respondents. The p-value of 0.0001 of C7 indicates a statistical significant difference, and the Cohen-d value of 1.0 and 1.1 indicates practical significance as well as a large effect.

Table 8.31: ANOVA for Construct 7:
C7 = Paving, road works, curbing and gabion

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.91	0.92	0.06	-	-
S2. Local government officials ...	11	1.73	0.94			
S3. Financial & training instit ...	12	0.78	1.00			
S4. Private sector construction co ...	21	0.85	0.96			

No statistical significant difference could be reported on the sectors in C7.

8.6.8 Construct 8: Road maintenance, cleaning and grass cutting

Table 8.32: Means and Standard deviation on construct 8: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.903	0.733
Female	62	2.181	0.756

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Although still bad the mean for female construction entrepreneurs in this construct, road maintenance, is so far the best at 2.181.

Table 8.33: Paired t-test on construct 8: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.722	0.942	<0.0001*	0.77

* indicates statistical significance, +++ indicates practical significance

The difference in the acceptability between men and women entrepreneurs regarding Construct 8 is the lowest so far. Although the P-value indicates statistical significant difference, the Cohen-d value indicates only a medium effect.

Table 8.34: Paired t-test on construct 8: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.587	0.894	0.047*	0.66
Females on M-F	39	0.801	0.972	<0.0001*	0.82 +++

* indicates statistical significance, +++ indicates practical significance

The male respondents seem to be more positive than the females regarding the acceptability of women in construction on road maintenance. The female respondents however, are more negative regarding the acceptance of women in C8, as they present both a statistical and practical significant difference of <0.0001 and 0.82.

Table 8.35: ANOVA for Construct 8:
C8 = Road maintenance, cleaning and grass cutting

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.57	0.81	0.10	-	-
S2. Local government officials ...	11	1.36	0.94			
S3. Financial & training instit ...	12	0.56	1.11			
S4. Private sector construction co ...	21	0.61	0.87			

No statistical significant difference could be reported amongst the sectors in C8.

8.6.9 Construct 9: Traditional African building, thatching, painting and flooring

Table 8.36: Means and Standard deviation on construct 9: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.642	0.774
Female	62	2.777	0.846

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

This is the first construct where the skills and outcomes of both women and men are acceptable, but with a higher mean for women (2.777) than for men (2.642).

Table 8.37: Paired t-test on construct 9: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	-0.135	1.150	0.3571	-

* indicates statistical significance, +++ indicates practical significance

Although it is not regarded as statistically significant, the negative mean difference indicates that women are regarded as better than men in C9.

Table 8.38: Paired t-test on construct 9: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	-0.157	1.069	0.490	-
Females on M-F	39	-0.123	1.208	0.529	-

* indicates statistical significance, +++ indicates practical significance

Both male and female respondents agreed that women are better than men on traditional African building, thatching, painting and flooring.

Table 8.39: ANOVA for Construct 9:
C9 = Traditional African building, thatching, painting and flooring

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	-0.24	1.08	0.03*	C2 & C4	1.11 +++
S2. Local government officials ...	11	0.62	0.73			
S3. Financial & training instit ...	12	0.13	1.32			
S4. Private sector construction co...	21	-0.59	1.11			

Given a P-value of 0.03 the four sectors differ statistical significantly. Tukey intervals point the difference out to be mainly between S2 and S4 and the Cohen-d value indicates practical significance. This means that S4, the private sector allocating business opportunities, are far more positive about women construction entrepreneurs in C9 than S2 (local government officials handling feedback from clients) about women entrepreneurs involved in traditional African building.

8.6.10 Construct 10: General Education, language and terminology

Table 8.40: Means and Standard deviation on construct 10: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.351	0.775
Female	62	2.238	0.727

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Worthy of note that neither males nor females have acceptable skills and outcomes regarding education, language and terminology. Both means are below 2.5. This is an important finding as both men and women entrepreneurs are therefore regarded as not up to standard with C10.

Table 8.41: Paired t-test on construct 10: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.113	0.551	0.1115	0.21

* indicates statistical significance, +++ indicates practical significance

There is also no significant difference between male and female entrepreneurs.

Table 8.42: Paired t-test on construct 10: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.163	0.366	0.0442*	0.45
Females on M-F	39	0.083	0.638	0.420	-

* indicates statistical significance, +++ indicates practical significance

There is also no significant difference between male and female respondents regarding men and women construction entrepreneurs.

Table 8.43: ANOVA for Construct 10
C10 = General Education, language and terminology

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.15	0.29	0.29		
S2. Local government officials ...	11	0.34	0.52			
S3. Financial & training instit ...	12	0.14	0.49			
S4. Private sector construction co ...	21	-0.05	0.73			

No statistical significant difference could be reported amongst the sectors in C10.

This is the first construct where everybody seems to agree that the general education, language and terminology skills and outcomes of both men and women in construction are not acceptable.

8.6.11 Construct 11: General managerial, finance and business

Table 8.44: Means and Standard deviation on construct 11: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.213	0.838
Female	62	2.103	0.835

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Similar to C10, both male and female construction entrepreneurs' outcomes and skills in C11 (management) are not acceptable, with both means well below 2.5.

Table 8.45: Paired t-test on construct 11: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.110	0.631	0.1762	-

* indicates statistical significance, +++ indicates practical significance

There is also no significant difference between male and female entrepreneurs.

Table 8.46: Paired t-test on construct 11: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	-0.070	0.458	0.4737	
Females on M-F	39	0.215	0.698	0.0615	

* indicates statistical significance, +++ indicates practical significance

There is also no significant difference between male and female respondents regarding men and women construction entrepreneurs regarding C11.

Table 8.47: ANOVA for Construct 11
C11 = General managerial, finance and business

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	-0.09	0.32	0.46	-	-
S2. Local government officials ...	11	0.24	0.50			
S3. Financial & training instit ...	12	0.15	0.80			
S4. Private sector construction co ...	21	0.19	0.78			

No statistical significant difference could be reported amongst the sectors in C11.

This is the second construct where everybody seems to agree. The general managerial, finance and business skills and outcomes of both men and women in construction are not acceptable, and in fact far below the middle-value of the Likert scale.

8.6.12 Construct 12: Future directed, innovation, creativity, business planning

Table 8.48: Means and Standard deviation on construct 12: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.271	0.761
Female	62	2.165	0.719

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Similar to C11, this construct, C12 on future directedness, innovation, creativity, business planning skills and outcomes, is below the acceptable value for both women and men construction entrepreneurs.

Table 8.49: Paired t-test on construct 12: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.106	0.634	0.1912	-

* indicates statistical significance, +++ indicates practical significance

No significant difference between male and female entrepreneurs is reported.

Table 8.50: Paired t-test on construct 12: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	-0.043	0.526	0.70	-
Females on M-F	39	0.195	0.681	0.0820	-

* indicates statistical significance, +++ indicates practical significance

Although male respondents felt that women in construction are slightly better than men, given the Mean difference (m-f) of -0.043, this difference is of no statistical or practical significance according to the P- and d-values.

Table 8.51: ANOVA for Construct 12
C12 = Future directed, innovation, creativity, business planning

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	-0.07	0.39	0.37	-	-
S2. Local government officials ...	11	0.36	0.55			
S3. Financial & training instit ...	12	0.10	0.65			
S4. Private sector construction co ...	21	0.12	0.80			

No statistical significant difference could be reported amongst the sectors in C12.

Important to note that neither men nor women in construction is regarded to be future directed, innovation, creativity, and business planning oriented as indicated by C12.

8.6.13 Construct 13: Tender, pricing, legal, tax and procurement

Table 8.52: Means and Standard deviation on construct 13: Acceptance of the 62 respondents of male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$	S
Male	62	2.253	0.736
Female	62	1.969	0.704

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.

Both male and female construction entrepreneurs' skills and outcomes are not acceptable regarding Construct 13: tendering, pricing, procurement, etc.

Table 8.53: Paired t-test on construct 13: The opinions of the 62 respondents on male and female construction entrepreneurs

Entrepreneurs:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Paired (M-F)	62	0.284	0.381	<0.0001*	0.75

* indicates statistical significance, +++ indicates practical significance

Although both women and men are regarded to be low on this construct, women seem to be worse off. The differences in their means are of statistical significance, and the Cohen-d value indicates medium effect.

Table 8.54: Paired t-test on construct 13: The opinions of the M+F respondents on the difference between male and female construction entrepreneurs

Respondents:	N	$\bar{X}$-difference	S-difference	P-value	Cohen-d
Males on M-F	23	0.196	0.347	0.0130*	0.56
Females on M-F	39	0.336	0.394	<0.0001*	0.85 +++

* indicates statistical significance, +++ indicates practical significance

Fascinating that female respondents are more negative about women in construction than male respondents. Contrary the male respondents, the females reported a statistical significant difference, a practical significance as well as a large effect.

Table 8.55: ANOVA for Construct 13
C13 = Tender, pricing, legal, tax and procurement

Sector classification	N	$\bar{X}_{m-f}$	S_{m-f}	P	Tukey	d
S1. Officials at DPW adjudicating ...	18	0.10	0.20	0.02*	S4 & S1	0.90 +++
S2. Local government officials ...	11	0.42	0.46			
S3. Financial & training instit ...	12	0.19	0.29			
S4. Private sector construction co ..	21	0.42	0.44			

Although both means are low, a statistical significant difference can be reported amongst the sectors S1 and S4. Tender, pricing, legal, tax and procurement skills and outcomes need to receive urgent attention for both men and women entrepreneurs before they will be acceptable.

8.7 Findings

Please refer to Section 8.5 for the interpretation of the findings summary

Table 8.56: Summary of findings

Section	H_0 (+) & H_a (-)	There is a significant difference in...:	.1 between men & women entrepr. (Paired t)	.2 between male Mr, female Fr respondents. (Paired t)	.3 between the four sectors (ANOVA)
8.7.1	H_0C1	Understanding plans, drawings, layouts & levels...	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.2	H_0C2	Brickwork, bricklaying, plastering and 'wet-work'...	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.3	H_0C3	General carpentry, doors, ceiling and roofing...	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✔ *+++S1&S2
8.7.4	H_0C4	Plumbing, drainage and piping	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.5	H_0C5	Electricity, tubing, wiring and lighting...	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.6	H_0C6	Wall tiling, glazing, painting and floor tiling...	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.7	H_0C7	Paving, road works, curbing and gabion...	H_0 ✔ *+++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.8	H_0C8	Road maintenance, cleaning & grass cutting...	H_0 ✔ *++ M+	H_0 ✔ *+++ M+	H_0 ✘ (rejected)
8.7.9	H_0C9	Traditional African building, thatching, painting & flooring	H_0 ✘ (rejected; F+)	H_0 ✘ F+	H_0 ✔ *+++S2&S4
8.7.10	H_0C10	General Education, language and terminology...	H_0 ✘ (rejected; M+)	MrH_0 ✔ * M+; FrH_0 ✘	H_0 ✘ (rejected)
8.7.11	H_0C11	General managerial, finance and business...	H_0 ✘ (rejected; M+)	H_0 ✘ (rej;MrF+FrM+)	H_0 ✘ (rejected)
8.7.12	H_0C12	Future directed, creativity innovation, business plans...	H_0 ✘ (rejected; M+)	H_0 ✘ (rej;MrF+FrM+)	H_0 ✘ (rejected)
8.7.13	H_0C13	Tender, pricing, legal, tax and procurement...	H_0 ✔ *++ M+	H_0 ✔ *++ M+	H_0 ✔ *+++S4&S1

H_0 ✘ indicates that the null hypothesis is rejected and the alternative H_a is accepted;
H_0 ✔ indicates that the null hypothesis is accepted (or cannot be rejected);
* indicates statistical significance;
+++ indicates practical significance, + low effect, ++ medium effect, +++ large effect;
M+ indicates that the means of males are higher than the means of females, taking into account the paired t-test of M-F. (If M+ it implies that male entrepreneurs are regarded to better in the construct than female entrepreneurs);
F+ indicates that the means of female entrepreneurs are higher than the means of males (If F+ it implies that female entrepreneurs are regarded to better in the specific construct than males).
Mr Male respondents and Fr Female respondents will only be reported on if they responded differently regarding male & female entrepreneurs, e.g. C10 to C12.

Table 8.56 specifies: H_0 ✔ * +++ M+ for the constructs C1 to C8 for both columns .1 and .2. This entails that the null hypotheses are accepted for C1 to C8, which are more or less all technical skills and outcomes. The acceptance of H_0 imply a significant statistical (*) and practical (+++) difference in the acceptability of the outcomes and skills of male and female entrepreneurs. In all these cases the difference in means (M-F) are positive, indicating that the means of males are higher than the means of females. M+ thus implies that the male and female respondents both feel that males are significantly better than female construction entrepreneurs in technical skills and outcomes. Interesting to note that these technical outcomes and skills of women construction entrepreneurs are not acceptable even for the female respondents.

Except for C3, Carpentry, no significant difference could be found amongst the four sectors regarding the acceptability of male and female construction entrepreneurs. For C3, Carpentry, the analysis of variance (Anova) pointed out that the officials of the Department of Public Works (DPW) adjudicating tenders and business opportunities are far more negative than the local government officials handling feedback from clients about C3, women carpentry entrepreneurs. This is in line with the queries of women in construction that because of such barriers they are not able to access the available business opportunities in order to prove their skills and outcomes.

In construct 9 F+ indicates that both male and female respondents agreed that women are better than men on traditional African building, thatching, painting and flooring. The differences were however not significant. An important finding is that the Anova pointed out that the private sector allocating business opportunities, are far more positive than the local government officials in accepting women entrepreneurs involved in traditional African building.

Constructs 10 to 13, which are education, management and business related, tell a totally different story. In all four constructs neither males nor females have acceptable skills and outcomes because all their means are below 2.5. This finding has profound implications regarding the planning of training strategies for both men and women construction entrepreneurs. The past emphasis placed on technical training should make place for education, management and business related training programmes.

Due to the low means both the statistical and practical difference for C10Fr, C11 and C12 were insignificant, therefore the H_0 are rejected. The H_0 are accepted for C10Mr and C13.

On C13 (tendering) it was found that even female respondents are more negative about women in construction than male respondents. This strengthens the belief of women in construction that their tenders are not accepted.

In C11 (management) and C12 (innovation) female respondents accepted male entrepreneurs above women construction entrepreneurs, while male respondents accepted women construction entrepreneurs above males.

The Anova pointed out a statistical and practical difference in C13 (tendering) between the opinions of the private sector S4 and S1 DPW adjudicating tenders. This implies that the DPW finds the outcomes and skills of women entrepreneurs on tendering acceptable, while the private sector does not agree that their skills and outcomes on tendering are at an acceptable standard. This finding is also in line with the opinion of women in construction that they do not get adequate access to construction business opportunities.

Given the results of the Cronbach Alpha and Factor analysis, the instrument developed to apply the logical thinking approach especially for the acceptability element of the Outcomes construct, proved to be reliable and valid. This instrument could be used for similar studies in future.

Chapter 9: A survey on the acceptability and utilization of SAWiC by construction entrepreneurs

9.1 Introduction

The Women in Construction (WiC) initiative was originally founded in 1997. WiC later developed into the South African Women in Construction Association (SAWiC) with some of its objectives to assist women in protecting themselves against discrimination, to access contracts, create jobs, grow their businesses, enhance their entrepreneurial qualities and thus to survive and thrive in the construction industry dominated by males during the previous century. Because the aim of SAWiC is also to provide networking and training opportunities, the utilization of these two aspects will be analysed.

Where Chapter 8 analysed the acceptability element of the outcomes construct, Chapter 9 will add the utilization element to the constructs. Due to the low frequency of utilization of women construction entrepreneurs the utilization element could not be tested in Chapter 8, but because SAWiC as an association is operational for three years, both the acceptability and utilization elements of the outcomes construct are tested. The utilization element will only test the networking and training aspects. (Please refer to the schematic framework presented in Chapter 1).

To follow on Chapter 8 the aim of Chapter 9 is:

- To apply the Logical thinking approach of evaluation, specifically the acceptability and utilization elements, to women construction entrepreneurs by
- Doing an opinion survey of the acceptability and utilization of the South African Women in Construction Association (SAWiC) amongst 341 construction entrepreneurs.
- To develop an instrument to measure the above based on the evaluation constructs developed from the literature.

9.2 Research design and methodology for this chapter

9.2.1 Statistical methodology

As part of the SAWiC Research Program a questionnaire was designed and circulated amongst delegates at SAWiC meetings held in all nine provinces during May to September 2002. Six versions of the questionnaire were developed and pilot tested before the final one was used. After the questionnaire was filled out a short

interview was held with each respondent. This provided some qualitative information and ensured that all the questions were answered. No follow up was possible because unlike the questionnaire used in Chapter 8 the questionnaire used in Chapter 9 was filled out anonymously. Similar to Chapter 8 it is classified as a designated study of SAWiC delegate universum. It can also be regarded as a sample (although not a random sample) of the construction sector. As this is not a random sample survey, the sampling tests were therefore not done.

9.2.2 Managerial question

The managerial question is: Do the construction entrepreneurs accept and utilize the South African Women in Construction Association (SAWiC)? (Please refer to Section 9.5 for the Hypotheses derived from this question).

9.2.3 Respondents targeted

The questionnaire was directed to the delegates who attended the meetings of SAWiC in the provinces and the annual general meeting on 9 May 2002 in Midrand where the first round of 135 delegates filled out the questionnaires. In total 341 delegates at SAWiC meetings in all nine provinces filled out a questionnaire during May to September 2002. Of the 341 delegates nearly 70% were contractors, and 30% were already members of SAWiC while those who were not yet members, 98% of the delegates indicated that they would like to become members of SAWiC. Some 45% were already members of other professional work-related organisations.

Of the 343 only 2 questionnaires were rejected during the interviews as it was found that the respondents could not read and was prompted by fellow contractors. A total of 341 responses were thus used. The high percentage is due to the fact that each questionnaire was checked when handed in before the respondent left. Except for the Northern Cape, more than 30 questionnaires were received back per province. The 341 respondents who gave their opinions can be divided into Male 28 and Female 313. (n_T = 341; n_M = 28; n_F = 313). Of the 341 delegates only 8% were men.

9.2.4 Development of questions in questionnaire

An instrument called 'SAWiC Research Program on conducting a brighter future' was developed, filled out and followed by a brief interview of each delegate. The questionnaire for the programme consists of 9 sections. Sections B (Acceptability of SAWiC) and C (Utilization of SAWiC) were designed as instruments for Chapter 9.

9.3 Statistical tools used for the confirmation of validity and reliability

9.3.1 Cronbach Alpha analysis on deleted results of each question

A Cronbach Alpha value of above 0.5 is regarded as an indication of reliability. From the 21 questions the 3 constructs in Table 9.1 were derived to measure the construction entrepreneurs' acceptance and utilization of SAWiC. As in Chapter 8, should one question be deleted from the group, the Cronbach Alpha values in Table 9.1 present the value that the rest of the questions in the group will accept.

Table 9.1 Questions from which the Constructs were developed and Cronbach Alpha deleted results of the individual questions

Construct A:	**Acceptability of SAWiC**	
A1.	SAWiC is fulfilling an important role to empower women	0.58
A2.	SAWiC meetings are important for women in construction	0.53
A3.	SAWiC should have more contact sessions during the year	0.56
A4.	The SAWiC Secretariat and office should be expanded	0.53
A5.	SAWiC should be more active in all the provinces	0.57
Construct T:	**Utilization of Training opportunities through SAWiC**	
T1.	SAWiC should have more contact sessions during the year.	0.69
T2.	Training helped: to become aware of business opportunities & contracts through presentations and documents being distributed.	0.63
T3.	With topics discussed and training that could help you to take up business opportunities.	0.64
T4.	To improve your access to finance for contracts and business opportunities.	0.65
T5.	To get insight into and to solve problems relating to discrimination against women.	0.64
T6.	To get insight into and to solve problems relating to technical matters in construction.	0.65
Construct N:	**Utilization of Network opportunities through SAWiC**	
N1.	SAWiC should have more contact sessions during the year.	0.79
N2.	The SAWiC Secretariat and office should be expanded.	0.76
N3.	SAWiC should be more active in all the provinces.	0.77
N4.	Networking helped: to gain self-confidence for taking up the challenges of the construction industry.	0.77
N5.	To meet other people in the construction sector that might have similar problems than yours.	0.76
N6	To obtain contacts with suppliers that can open business opportunities.	0.77
N7.	To strengthen networks that can empower women for taking up new business opportunities.	0.76
N8.	To report discrimination to Government and the Construction Industry Development Board (CIDB).	0.77
N9.	To make contact with international experts in construction	

	through the affiliation with NAWIC (USA & Canada).	0.75
N10.	To make women entrepreneurs aware of HIV AIDS in the construction sector.	0.77

9.3.2 Cronbach Alpha analysis of the constructs

The Cronbach Alpha results of all the constructs are again far above the 0.5 level that is required for reliability and validity. The Cronbach Alpha results of each group of questions are in some cases higher than the individual deleted values of Table 9.1, which means that all the questions within each group are valid and reliable and is forming valid and reliable constructs. The constructs are thus measuring what they are supposing to measure, indicating a good and reliable instrument.

Table 9.2 Cronbach Alpha results of the constructs

CA	Construct A:	Acceptability of SAWiC	0.61
CT	Construct T:	Utilization of Training opportunities through SAWiC	0.69
CN	Construct N:	Utilization of Network opportunities through SAWiC	0.79

9.3.3. Factor analysis on the constructs

As mentioned in Chapter 8, factor analysis looks for patterns among the variables to discover if an underlying combination of the original variables (a factor) can summarise the original set. Factor analysis also attempts to reduce the number of variables and discover the underlying constructs that explain the variance (Cooper & Schindler 2001:214, 574, 575, 591 and 604).

In order to confirm the validity of the grouping of the questions a factor-analysis was done of the instrument:

Table 9.3 Factor analysis of the constructs

Con-stuct No	Constructs developed from the 21 questions	Mineigen Criterion: Factors Reported:	Variance explained by factor	Commu-nalities differ from:	Commu-nalities differ to: (highest)
C A	Acceptability of SAWiC	1	2.00	0.35	0.48
C T	Utilization of Training opportunities through SAWiC	1	2.45	0.28	0.49
C N	Utilization of Network opportunities through SAWiC	2	3.52 1.20	0.39	0.62

Although the 'Mineigen Criterion of Factors Reported' derived two factors in CN from the 10 Questions asked for this construct, it will be analysed as one construct.

9.4 Statistical tools applied in analysing the responses

9.4.1 Computer programme

As in Chapter 8 the data was analysed by using SAS computer programme (SAS 1988).

9.4.2 Means and standard deviations

Arithmetic means ($\bar{X}$) and standard deviations (S) are reported in this research.

9.4.3 T-tests

T-tests were used to determine the significance of the difference between the averages of the answers given by respondents about SAWiC in 2x2 matrixes.

9.4.4 Probability Values (*p* values) measuring statistical significance

Results will be regarded as significant if the p-values are smaller than 0.05, because this value presents 95% degrees of freedom on the normal distribution curve.

9.4.5 Cohen-d values measuring practical significance

The practical significance of the results (d-values) will be computed when the p-value was statistically significant ($p \leq 0.05$). According to Steyn (1998:13), Cohen (1977) recommends the following guidelines for practical significance:

d = 0.2 smaller effect;

d = 0.5 medium effect;

d = 0.8 large effect (Steyn, 1998:13):

$$\text{Cohen d} = \frac{\mu_1 - \mu_2}{\sigma} \text{ or } = \frac{\bar{X}_1 - \bar{X}_2}{S} \qquad \text{(Cohen 1988)}$$

9.4.6 ANOVA (Analysis of variance)

The statistical method for testing the null hypothesis, for matrixes larger than 2x2, is analysis of variance (ANOVA). The provinces will be regarded as the independent variable for the analysis of variance. The *F* distribution determines the size of ratio necessary to reject the null hypothesis for a particular sample size and level of significance (Cooper & Schindler, 2001:509). SAS works out a P-value that replaces the use of the *F* statistical tables.

P-values ≤ 0.05 indicate statistical significance.

9.5 Hypotheses

In each case the alternative hypotheses H_a will be the negative or opposite of the null hypotheses H_0.

9.5.1 Construct A: Acceptability of SAWiC

H_0A1: There is a significant positive acceptance of SAWiC by construction entrepreneurs.

H_0A2: There is a significant difference between male and female construction entrepreneurs in the acceptance of SAWiC.

H_0A3: There is a significant difference between construction entrepreneurs in the nine provinces regarding the acceptance of SAWiC.

9.5.2 Construct T: Utilization of training opportunities through SAWiC

H_0T1: There is a significant positive attitude towards the utilization of SAWiC's training opportunities by construction entrepreneurs.

H_0T2: There is a significant difference between male and female construction entrepreneurs in the utilization of SAWiC's training opportunities.

H_0T3: There is a significant difference between construction entrepreneurs in the nine provinces regarding the utilization of SAWiC's training opportunities.

9.5.3 Construct N. Utilization of network opportunities through SAWiC

H_0N1: There is a significant positive attitude towards the utilization of SAWiC's network opportunities by construction entrepreneurs.

H_0N2: There is a significant difference between male and female construction entrepreneurs in the utilization of SAWiC's network opportunities.

H_0N3: There is a significant difference between construction entrepreneurs in the nine provinces regarding the utilization of SAWiC's network opportunities.

Table 9.4 Summary of hypotheses

H_0	Construct: / Statement:	acceptability. (A)	training. (T)	networking. (N)
1	There is a significant positive attitude towards SAWiC regarding…	H_0A1	H_0T1	H_0N1
2	There is a significant difference per gender regarding SAWiC's…	H_0A2	H_0T2	H_0N2
3	There is a significant difference per province regarding SAWiC's…	H_0A3	H_0T3	H_0N3

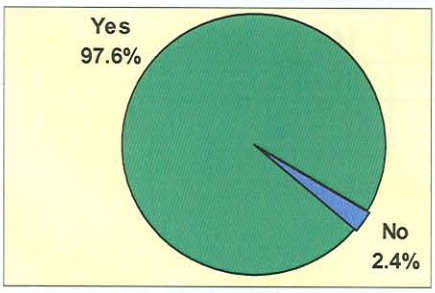
Similar to Chapter 8 the hypotheses will be summarised by using Table 9.4 above.

9.6. Statistical analysis of the constructs

9.6.1 Construct A: Acceptability of SAWiC

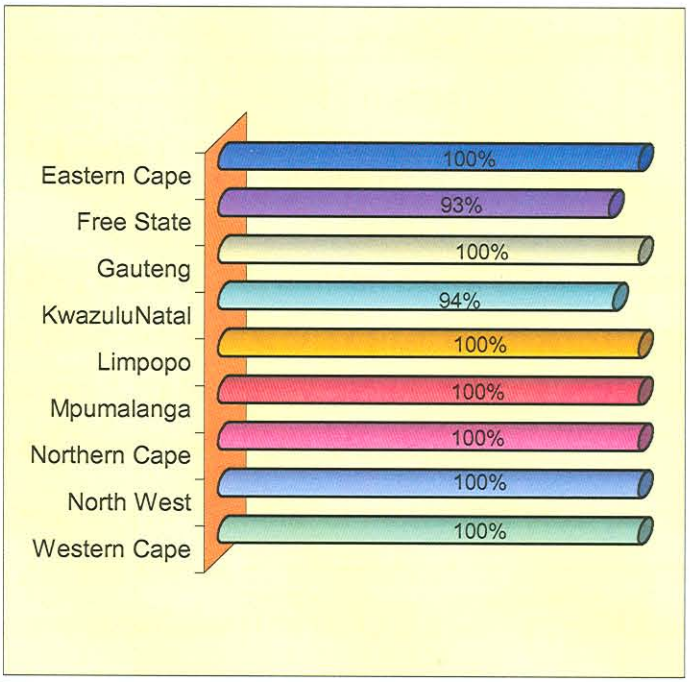
To obtain the attention of the respondents, three dichotomous (Yes or No) questions were asked: 1. If not yet, would you like to become a member of SAWiC?

Figure 9.1: Membership acceptability



Overwhelmingly 97.6% non-members of SAWiC indicated that they would like to become members. Only Free State and Kwazulu-Natal were less than 100% due to branches erected.

Figure 9.2: Membership acceptability per province



On both the remaining questions the response was also Yes: 2. Would you like to have your name on a detailed SAWiC database for distribution to clients nationally and internationally? 3. Would you like to receive a SAWiC annual report?

Figure 9.3: Database acceptability

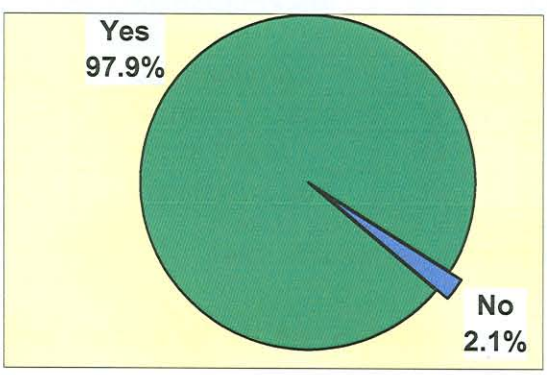
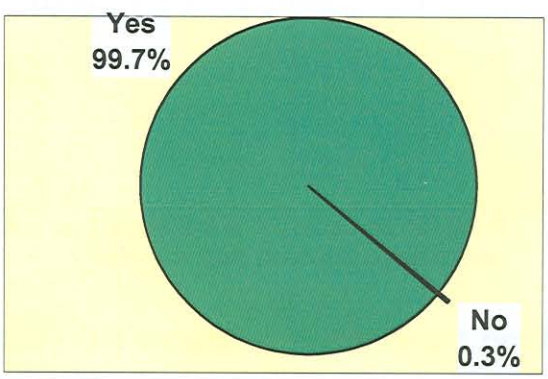


Figure 9.4: Annual report acceptability



Separate provincial analysis will not be done as there is no significant variance between them. A general positive attitude was apparent from all the delegates.

Apart from the above dichotomous questions, five statements were made, scaled on the Likert scale, with 1=disagree strongly; 2=disagree; 3=agree and 4=agree strongly.

The following five statements were formulated in designing Construct A:

A1. SAWiC is fulfilling an important role to empower women
A2. SAWiC meetings are important for women in construction
A3. SAWiC should have more contact sessions during the year
A4. The SAWiC Secretariat and office should be expanded
A5. SAWiC should be more active in all the provinces.

Table 9.5: T-test for Construct A: Acceptability of SAWiC per gender

Respondents	N	$\overline{X}$	S	P-value	Cohen-d
Male	28	3.69	0.246	0.8038	-
Female	311	3.70	0.356		

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.
* indicates statistical significance, +++ indicates practical significance.

As the middle-value of a four-point Likert scale is 2.5, a mean above 2.5 is regarded as good and below 2.5 is regarded as not good, for the purpose of this study. The two means of 3.69 for male respondents and 3.70 for female respondents are regarded as extremely good. Given the above the Hypothesis H_0A1 is accepted.

Although the mean of females is slightly higher than that of males, the t-test pointed out no significant statistical difference and Cohen-d, no practical difference in the acceptability of SAWiC between males and females. The H_0A2 is therefore rejected.

Table 9.6: ANOVA for Construct A: Acceptability of SAWiC per province

	Province	N	$\overline{X}$	S	P	Tukey	d
1.	Eastern Cape	25	3.68	0.38	0.0033 *	2 & 3	0.72
2.	Free State	65	3.82	0.26			
3.	Gauteng	57	3.58	0.41			
4.	Kwazulu-Natal	33	3.75	0.33			
5.	Limpopo	33	3.70	0.32			
6.	Mpumalanga	51	3.74	0.30			
7.	Northern Cape	12	3.50	0.41			
8.	North West	33	3.61	0.44			
9.	Western Cape	30	3.72	0.24			

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.
* indicates statistical significance, +++ indicates practical significance.

The means of all the provinces are far above 2.5 indicating a significant positive attitude towards SAWiC in all provinces. There is however a significant statistical difference with only a medium practical effect between the provinces. The Tukey studentized range indicates comparisons as significant at 0.0033 Tukey spotted the largest difference between Free State and Gauteng. The H_0A3 is therefore accepted.

9.6.2 Construct T: Utilization of training opportunities through SAWiC

The following six statements were formulated to design this construct:

T1. SAWiC should have more contact sessions during the year.
T2. Training helped: to become aware of business opportunities & contracts through presentations and documents being distributed.
T3. With topics discussed and training that could help you to take up business opportunities.
T4. To improve your access to finance for contracts and business opportunities.
T5. To get insight into and to solve problems relating to discrimination against women.
T6. To get insight into and to solve problems relating to technical matters in construction.

Table 9.7: T-test for Construct T: Utilization of training opportunities through SAWiC per gender

Respondents	N	$\bar{X}$	S	P-value	Cohen-d
Male	28	3.67	0.340	0.3299	-
Female	311	3.74	0.316		

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.
* indicates statistical significance, +++ indicates practical significance.

The means for the female respondents is a high 3.74 with the male respondents presented also a high 3.67. The P-value indicated no significant statistical difference between male and female respondents regarding the utilization of SAWiC's training opportunities. Therefore H_0T1 is accepted and H_0T2 rejected.

Table 9.8: ANOVA for Construct T: Utilization of training opportunities through SAWiC per province

	Province	N	$\bar{X}$	S	P	Tukey	d
1.	Eastern Cape	25	3.76	0.28	0.1153	-	-
2.	Free State	65	3.79	0.26			
3.	Gauteng	57	3.71	0.33			
4.	Kwazulu-Natal	33	3.78	0.32			
5.	Limpopo	33	3.72	0.42			
6.	Mpumalanga	51	3.79	0.26			
7.	Northern Cape	12	3.60	0.34			
8.	North West	33	3.63	0.38			
9.	Western Cape	30	3.67	0.29			

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.
* indicates statistical significance, +++ indicates practical significance.

The analysis of variance could not detect any significant statistical difference between the provinces regarding Construct T: Utilization of training opportunities. Therefore H_0T3 is rejected. All the averages are above 3.6 and far above the 2.5 level. All provinces thus have extremely positive attitudes towards SAWiC's training.

9.6.3 Construct N: Utilization of network opportunities through SAWiC

The following ten statements were formulated to design this construct:

N1. SAWiC should have more contact sessions during the year.
N2. The SAWiC Secretariat and office should be expanded.
N3. SAWiC should be more active in all the provinces.
N4. Networking helped: to gain self-confidence for taking up the challenges of the construction industry.
N5. To meet other people in the construction sector that might have similar problems than yours.
N6 To obtain contacts with suppliers that can open business opportunities.
N7. To strengthen networks that can empower women for taking up new business opportunities.
N8. To report discrimination to Government and the Construction Industry Development Board (CIDB).
N9. To make contact with international experts in construction through the affiliation with NAWIC (USA & Canada).
N10. To make women entrepreneurs aware of HIV AIDS in the construction sector.

Table 9.9: T-test for Construct N: Utilization of network opportunities through SAWiC per gender

Respondents	N	$\bar{X}$	S	P-value	Cohen-d
Male	28	3.73	0.276	0.8897	-
Female	311	3.74	0.307		

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.
* indicates statistical significance, +++ indicates practical significance.

Even though the mean of females is slightly higher than that of males, the t-test pointed out no significant statistical difference and Cohen-d, no practical difference in the attitude between males and females of SAWiC's network opportunities. The H_0N2 is therefore rejected, but given the high means H_0N1 is accepted.

Table 9.10: ANOVA for Construct N: Utilization of network opportunities through SAWiC per province

	Province	N	$\bar{X}$	S	P	Tukey	d
1.	Eastern Cape	25	3.74	0.30	0.1386	-	-
2.	Free State	65	3.79	0.28			
3.	Gauteng	57	3.72	0.33			
4.	Kwazulu-Natal	33	3.77	0.31			
5.	Limpopo	33	3.74	0.29			
6.	Mpumalanga	51	3.79	0.27			
7.	Northern Cape	12	3.53	0.37			
8.	North West	33	3.65	0.38			
9.	Western Cape	30	3.71	0.24			

A mean above 2.5 is regarded as good and below 2.5 is regarded as not good.
* indicates statistical significance, +++ indicates practical significance.

The ANOVA could not detect any significant statistical difference between the provinces regarding Construct N: Utilization of network opportunities through SAWiC. It should be pointed out that the Northern Cape has the lowest mean and do not feel as strongly about this construct as the other provinces. The ANOVA however indicated that these differences are of no statistical significance. The hypothesis H_0N3 is therefore rejected.

9.7 Findings

Given the results of the Cronbach Alpha and Factor analysis, the instrument developed to apply the logical thinking approach especially for measuring the acceptability and utilization elements of the Outcomes construct, proved to be reliable and valid. This instrument could be used for similar studies in future.

Table 9.11 Summary of hypotheses results and findings

H_0	Construct: Statement:	acceptability. (A)	training. (T)	networking. (N)
1	There is a significant positive attitude towards SAWiC regarding…	H_0A1 ✔ (Accepted)	H_0T1 ✔ (Accepted)	H_0N1 ✔ (Accepted)
2	There is a significant difference per gender regarding SAWiC's…	H_0A2 **x** (Rejected)	H_0T2 **x** (Rejected)	H_0N2 **x** (Rejected)
3	There is a significant difference per province regarding SAWiC's…	H_0A3 ✔ (Accepted)	H_0T3 **x** (Rejected)	H_0N3 **x** (Rejected)

From Table 9.11 it can be concluded that there is a significant positive attitude towards SAWiC's outcomes in measuring their acceptability, as well as the utilisation of their training and networking opportunities by both male and female entrepreneurs in all nine provinces. Except for H_0A3, which only had a medium practical effect, and both with excellent Means (above 3.5), no significant difference could be found in the responses of males and females, neither in the responses from the provinces.

The acceptance by men of SAWiC is an important finding for SAWiC as one of their slogans is "Women in Construction ... Supported by Men in Construction". As SAWiC is a women association, no males can become contractor entrepreneurs in SAWiC, but in order to obtain the support of males the policy of SAWiC to include males under the 'Service Provider' category seems to be successful.

A medium practical difference exists between Free State & Gauteng. Despite the fact that SAWiC is based in Midrand, the lack of large provincial differences points out that SAWiC succeeds in being accepted and being utilised by all provinces equally.

Chapter 10. Case study 1: Implementing Logframes on SAWiC

10.1 Introduction

The aim of this chapter is to illustrate that, similar to a project or endeavour, an institution should be efficient in its daily processes and activities and should deliver a product or output. However, to be effective, outcomes should be stated under the objectives and the envisaged impact should be stated under the goal. Moving from process to outcome and impact is crucial to ensure development effectiveness.

The Logframe construct discussed in Chapters 6 and 7 will be illustrated in this chapter as a case study applied to an institution. The institution in this case study is the South African Women in Construction Association (SAWiC).

This design Logframe will be developed in line with the business plan prescriptions of international development finance institutions (DFIs) mentioned in Chapter 7.

10.2 Background of SAWiC

SAWiC is a national association of women construction entrepreneurs (SMMEs) of women employed in all areas of construction, from the skilled trades, to business ownership. SAWiC has international affiliation to the National Association of Women in Construction (NAWIC) in the USA and Canada. Originally a trust was founded as a product of the Development Bank of Southern Africa (DBSA) Specialist Business Unit development program for SMME construction entrepreneurs and later became an association (Verwey 2002: Interview).

SAWiC has as some of its objectives to assist women in protecting themselves against discrimination and oppression, to access contracts, create jobs, grow their businesses, enhance their entrepreneurial qualities and thus to survive and thrive in the construction industry dominated by males during the previous century. SAWiC has four membership categories namely, labour, trades, contractor and service provider. Men are welcome to join under the service category level (Verwey 2001; Verwey 2002: Interview).

SAWiC administers, intervenes, facilitates and negotiates to empower its members to gain access to jobs and contracts, finance, training and networks. SAWiC strives to create a positive image of the construction industry and the role of women SMMEs in this non-traditional field, as portrayed in the slogan, "constructing a brighter future" (SAWiC 2002).

10.3 Methodology

This chapter is designed in a case study format with the aim to apply the logical framework construct. The information on SAWiC was obtained from its annual reports, papers delivered by its founder and interviews with its founder (Verwey 2002: Interview) and board members. This case study should be viewed with Chapter 9 in mind where SAWiC's acceptability and utilization by its members were tested.

10.4 Goal of SAWiC translated into Logframe terminology

The Logframe Goal of the South African Women in Construction (SAWiC) as association is to contribute to development and poverty alleviation by promoting gender equality, employment equity, as demanded by the Equity Act, through training, networking, financial and job opportunity facilitation of Small Medium and Micro Enterprises (SMMEs) that are involved in construction and owned by women.

In analysing the above goal the major questions were answered in line with logframe terminology as follows:

The Goal
of *(which organisation?)*
the South African Women in Construction (SAWiC)
as *(legal status?)*
association
is to *(to do what?)*
contribute to development and poverty alleviation
by *(why?)*
promoting gender equality, employment equity, as demanded by the Equity Act
through *(how?)*
training, networking, financial and job opportunity facilitation
of *(where?)*
Small medium and micro enterprises (SMMEs)
that *(doing what?)*
are involved in construction
owned by *(by whom?)*
women.

The above goal is also in line with SAWiC's slogan and vision of 'constructing a brighter future' for all in SA by empowering women.

10.5 Objectives of SAWiC translated into Logframe terminology

As explained in Chapter 7 the objective refer to outcomes and provide the crucial link between outputs and the goal. The most important elements of the outcomes concept are acceptance, utilization and client satisfaction.

SAWiC's objectives are that their sponsors, donors, international and national development fraternity, clients, communities, trustees; members, DBSA, board, clients & consultants, funding and development organizations, commercial banks, insurance companies, established and emerging contractor councils, associations, companies, major material suppliers and the government, will recognise, accept and support their outputs and activities, and that their clients, communities, and other beneficiaries, will accept and utilise their outputs of training, networking, financial and job opportunity facilitation.

In analysing the above objective the major aspects were dealt with in line with logframe terminology as follows:

SAWiC's objectives are that their
- sponsors,
- donors,
- international and
- national development fraternity,
- clients,
- communities,
- trustees,
- members,
- DBSA board,
- funding and development organizations,
- commercial banks,
- insurance companies,
- established and
- emerging contractor councils,
- associations,
- companies,
- major material suppliers and
- the government

will
- recognise,
- accept and
- support

their outputs of
- training,
- networking,
- financial and
- job opportunity facilitation.

10.6 Outputs of SAWiC (In order to reach the above objectives)

SAWiC provides:
- Contracts & job opportunities;
- Training opportunities;
- Financial access;
- Networks & assistance.

by means of the following tangible outputs:

- A structured organization;
- Established SAWiC secretariat;
- A trust as mechanism;
- A Strong SAWiC image;
- A marketing strategy;
- Provincial road shows;
- Provincial chapters;
- Registered members;
- Established database;
- Established website
- Formulated agreements;
- Structured workshops;
- Reliable sponsor pool;
- Videos of members' work;
- Trip & meeting reports;
- Quarterly reports;
- Annual report; and
- Auditor's report.

10.7 **Activities of SAWiC** (In order to reach the above output)

Contracts & job opportunities:

- Obtain tender bulletins from government departments, organizations, companies, etc.
- Distribute above to relevant members.
- Provide legal, costing, design, quantity surveying and other help in tendering process;
- Negotiate participation of women in existing contracts.
- Tracking and monitoring policy adherence and project implementation.
- Record and award positive achievements.

Training opportunities:

- Workshops;
- Courses;
- Conferences;
- Exchange programs;
- On site training;
- Course development in consultation with service providers.
- Continuously improve course contents.

Financial access:

- Negotiate with funding organizations.
- Keep track of performance.
- Address problem areas.
- Develop new financial mechanisms.

Networks & assistance:

- Organise overseas visits for networking.
- Organise overseas visitors.
- Arrange meetings with members.
- Arrange meetings with trustees.
- Arrange meetings with all other stakeholders.

Regarding SAWiC Secretariat:

- DBSA approval of preparation report;
- Negotiate & establish team;
- Draw up budget;
- Develop business plan;
- Implement business plan;
- Market SAWiC & chapters.
- All activities in support of the outputs described above.

Planning activities:

- Develop a business plan;
- Implement business plan;
- Market SAWiC.

Finance tasks:

- Budgeting.
- Negotiate with funding organizations.
- Develop new financial mechanisms.

Organise:

- Courses;
- Conferences;
- Exchange programs;
- On site training;
- Course development;
- Workshops;
- Database.

Monitor and evaluation tasks:

- Keep track of performance.
- Address problem areas.
- Include lessons learnt in database.

Networking assistance:

- Organise overseas visits for networking.
- Organise overseas visitors.
- Arrange meetings with SMMEs;
- Arrange meetings with Board;
- Arrange meetings with all other stakeholders.

All activities should be in support of the outputs described above.

Assumptions should state that the following would be in place:

- Honesty, integrity, trust and security.
- Accountability, credibility and transparency.
- Recognising of gender issues in all aspects of life.
- Promote a family sensitive industry.
- Pursue unity and excellence in the organisation.
- Ensure good governance practices.

10.8 Implementing Logframe methodology on SAWiC

Table 10.1: Logframe matrix for an institution's design and appraisal phase

The Goal and Purpose are demand driven, and are formulated from the beneficiary & clients' viewpoint

Description & Qualification	Indicators KPIs	Means of Verification.	Assumptions & Conditions
Goal: (or Expected Impact) The Goal of the South African Women in Construction (SAWiC) as association is to contribute to development and poverty alleviation by promoting gender equality, employment equity, as demanded by the Equity Act, through training, networking, financial and job opportunity facilitation of Small medium and micro enterprises (SMMEs) that are involved in construction and owned by women.	#Women empowered: use as proxies: #Attendees at meetings. #Fully paid up members. #Marketing meetings. #Provincial chapters created.	=Employment Equity Act of 1998. =Attendance registers. =SAWiC database. =Minutes of SAWiC meetings. =Trip reports.	+ Demand for women in all sectors in line with Eq. Act. + Economic growth. + Women involvement without fear. + Provincial interest in SAWiC affiliation.
Purpose: (or Objectives & Outcomes) SAWiC's objectives are that their sponsors, donors, international and national development fraternity, clients, communities, trustees; members, DBSA, board, clients & consultants, funding and development organizations, commercial banks, insurance companies, established and emerging contractor councils, associations, companies, major material suppliers and the government, will recognise, accept and support their outputs and activities, and that their clients, communities, and other beneficiaries, will accept and utilise their outputs of training, networking, financial and job opportunity facilitation.	Non-quantifiable: *Stakeholder feedback. *Visibility in publications. *Tangible support. Quantifiable: #R received from Donors. #Sponsored items. #Extractions distributed. #Pamphlets distributed. #Contracts obtained. #Training sessions. #Finance &, Bridging finance done. #Nat&Internat networks.	=Budgets approved. =Feedback at meetings minuted. =DBSA annual reports. =PwC audit. =Debansa & other publications. =SAWiC database. =OEU rapid assessment. =Minutes of SAWiC meetings. =Attendance registers. =SAWiC database.	+ DBSA managerial support & commitment. + Sufficient funds allowed for efficiency. +Infrastructure and support functions for SAWiC. +Commitment of trustees. +Stakeholder participation.

Abbreviations: # : Number of; = : To be found in; + : Positive assumption

Supply driven: Products of SAWiC trust, association, secretariat

Description & Qualification	Indicators KPIs	Means of Verification.	Assumptions & Conditions
Outputs: (or Results) Empower members with the following tangible outputs: 1. Contracts & job opportunities; 2. Training opportunities; 3. Financial access; 4. Networks & assistance. Regarding SAWiC Secretariat development there will be: 1. A structured organization; 2. Established SAWiC secretariat; 3. A trust as mechanism; 4. A strong SAWiC image; 5. A marketing strategy; 6. Provincial Road shows; 7. Provincial chapters; 8. Registered members; 9. Established Database; 10. Established Website 11. Formulated Agreements; 12. Structured Workshops; 13. Reliable Sponsor Pool; 14. Videos of members' work; 15. Trip & meeting reports; 16. Quarterly reports; 17. Annual Report; 18. Auditor's report.	#Secured. #Training workshops. #Contacts. Following documents be in place: *Agreements. *Trust deeds. *Strategies. # Members. # Road shows. #Sponsors. #Videos made. #Banners, Brochures. #Reports distributed. #Positive findings in audit report by PwC.	=Minutes of SAWiC meetings. =SAWiC database. =Legal Documents. =Minutes of SAWiC meetings. =Attendance registers. =SAWiC database. =Auditors report from PwC.	+Successful creation of infrastructure, funding and support functions for SAWiC. +That the SAWiC founder will receive sufficient administrative support, in order to run an efficient secretariat, which will produce the adjacent Output, in order to support the above Objectives & ultimate Goal.
Activities: (& inputs) **1. Contracts & job opportunities:** • Obtain tender bulletins from government departments, organizations, companies, etc. • Distribute above to relevant members. • Provide legal, costing, design, quantity surveying and other help in tendering process; • Negotiate participation of women in existing contracts. • Tracking and monitor policy adherence and project implementation. • Record and award positive achievements.	#Obtained. #Distributed. #Helped. #Negotiations. #Tracked. #Awards.	=SAWiC Reports and Database. =SAWiC Reports and Database. =SAWiC Reports and Database. =SAWiC Reports and Database.	+ Creation of infrastructure, funding and support functions for SAWiC.

2. Training opportunities: • Workshops; • Courses; • Conferences; • Exchange programs; • On site training; • Course development in consultation with service providers. • Continuously improve course contents.	#Participated. #Accredited. #Attended. #Participated. #Participated. #Consultations. #Improvements	=Feedback reports. =Course feedback evaluation forms. =Financial records.	+ Creation of infrastructure, funding and support functions for SAWiC.
3. Financial access: • Negotiate with funding. organizations. • Keep track of performance. • Address problem areas. • Develop new financial mechanisms.	#Negotiations. #Loans. #Meetings. #Mechanisms. #Testimonials & references given.	=Minutes of meetings. =Feedback reports.	
4. Networks & assistance: • Organise overseas visits for networking. • Organise overseas visitors. • Arrange meetings with members; • Arrange meetings with trustees; • Arrange meetings with all other stakeholders.	# visits. # visitors. # meetings. # meetings. # meetings.	=Minutes of meetings.	
<u>Regarding SAWiC Secretariat:</u> 1. DBSA approval of Prep. Report; 2. Negotiate & establish team; 3. Draw up Budget; 4. Develop business plan; 5. Implement business plan; 6. Market SAWiC & chapters. All activities in support of the 18 outputs described above.	# reports. # reports. # visits.	=DBSA Board Documentation. =SAWiC business plans.	

Abbreviations: #: Number of; =: To be found in; +: Positive assumption

10.9 Conclusions

The versatility of the Logframe as a design tool is evident from the above illustration. If the Logframe is not used, institutions easily formulate their business plans only in a process mode, without asking the questions WHY or SO WHAT. Institutions, corporations and government bodies can get so involved in processes and daily activities that they easily forget the reason for their existence.

Logframes should never replace business plans. A good business plan is still crucial for any institution, but with a Logframe construct in mind the output of an endeavour or of an institution will be seen in a wider context of acceptability, utilization, responsibility, accountability (AA), corporate tolerability and good citizenship.

Chapter 10 developed and illustrated a design Logframe for an institution, while Chapter 11 will develop and illustrate a design and an evaluation Logframe for a construction project.

Chapter 11. Case study 2: Implementing Logframes on construction projects

11.1 Introduction

The aim of this chapter is to incorporate the logical development approach and evaluation approach using specialist modules on a construction project. This chapter is thus the implementation of the constructs handled from Chapters 1 to 10.

Logical development models and Logframes were originally developed to serve as design, implementation and evaluation tools to ensure development effectiveness in development projects. The aim of this chapter is to illustrate especially the use of the Logframe on a construction project.

In line with the schematic design of this thesis presented in Chapter 1, Chapter 10 handled the Logframe mainly on the project design and implementation level while Chapter 11 is also proposing a Logframe model on the evaluation level.

11.2 Background

The Pretoria Technikon construction of a +R50m administration building is used as a case study. Technikon Pretoria needed an administration building because the administrative functions were accommodated in decentralised buildings designed for academic purposes. The project consisted of an 11 436m^2 building with six levels and a basement. Building operations commenced on 5 November 1999, and the first staff started occupying the building during March 2001. The contract documentation was completed before the funding was available. The Technikon and contractor made special provision to meet the development conditions. More than 800 unskilled people were employed and trained. The site and new building is a focal point among the buildings on the Technikon's Campus. The slope was difficult to deal with but the multi level design successfully integrated the new building with the rest of the buildings. Aesthetically the building is the flagship of the Campus and engenders a sense of excitement similar to that of an airport terminal. The building and the landscaped areas are coping effectively with large numbers of people daily. Cognisance has been taken of the needs of the handicapped and that access for people in wheelchairs and suitable toilets have been provided. The quality achieved in the construction of the building is high despite the fact that some compromise on quality was inevitable given the SMME developmental approach that was adopted. The building incorporates many features to improve its thermal performance.

11.3 Methodology

As there is usually much sensitivity surrounding evaluations, this project was chosen as it was a straightforward project completed and evaluated several years ago. The specific information is not as important as the methodology designed to incorporate the logframe information with the modular development approach for evaluation.

The information was obtained from the annual reports of the Technikon, project information and several interviews with the Rector during that time (Van Rensburg 2001: Interview). He was pleased with the fact that an evaluation model based on Logframes will be developed with the Technikon as case study. As this building is regarded as the flagship of the campus, information regarding it is freely available.

The full evaluation report is a lengthy document therefore only the application of the logframe in evaluation will be illustrated.

11.4 Project Logframe Goal or expected impact description

The Goal or expected impact derived from the appraisal report is:

'The creation of a better-trained technician level that will have spin-offs in terms of increased efficiency of workers. This in turn will facilitate economic growth and ultimate job creation.

Given the fact that the Technikon also provide other training besides 'technician level', a broader goal was formulated by the evaluation team:

The goal of the Technikon Pretoria Project is that it will contribute to economic development by providing qualified person power to the economy.

The Key performance indicators (KPIs) to quantify this goal could be:

- ✓ Marginal (or extra) Income of the trained students.
- ✓ Marginal Income of the trained Technical Level Students
- ✓ Development impact on the Geographic Gross Product (GGP) of the area.
- ✓ Manpower needs fulfilment of economy due to student output.
- ✓ Job opportunities created during construction.
- ✓ Job opportunities to continue after construction.

These KPIs could normally be found and verified in:

- ✓ Tracer studies of alumnae students.
- ✓ Economic development studies and reports.
- ✓ Manpower studies.
- ✓ Employment records.

Some of these indicators can only be fully quantified by means of impact studies between 5 and 10 years after completion of the project. In this evaluation only proxies could be used in order to provide some proof of impact.

11.5 Purpose, Objectives or Outcomes description

The Purpose, Objectives or Outcomes derived from the appraisal report are:

That the project will be accepted and utilised by the client and all the stakeholders.

Some of the Key performance indicators (KPIs) to quantify these are:

- ✓ Outcomes on Higher Education policy fit and delivery
- ✓ Acceptable performance management
- ✓ Acceptance of building by occupants and workers
- ✓ Acceptable achievements as a world class University of Technology.

These KPIs could normally be found and verified in:

- ✓ Department of Education Policy Papers
- ✓ Proof of linkages with international institutions.

As in the instance of impact, some of these indicators can only be fully quantified by means of impact studies between 5 and 10 years after completion of the project. In this evaluation only proxies could be used to provide some proof of outcomes.

11.6 Outputs (or Deliverables) description

The Outputs (or Deliverables) derived from the appraisal report are:

- ✓ The building of an 11 500m^2 admin building,
- ✓ Landscaping and parking,

which will be done in line with the:

- ✓ Technical,
- ✓ Environmental,
- ✓ Institutional,
- ✓ Social, requirements set in the appraisal report.

The Key performance indicators (KPIs) to quantify these are:

- ✓ Output regarding square meters built
- ✓ Output regarding quality
- ✓ SMME involvement
- ✓ Institutional output and capacity regarding relevant staff appointed

These KPIs can be found and verified in:

- ✓ Minutes of meetings

- ✓ Site visits
- ✓ Salary and wage statements

11.7 Activities: (& inputs) description

In order to provide the above output the following activities were necessary:

Institutional, Budget, Finances, Consultants, and Social activities

The Key performance indicators (KPIs) to quantify these are:

- ✓ Successful loan agreement signed
- ✓ Consultants' appointment and delivery
- ✓ Social meetings held to solve problems

These KPIs can be found and verified in:

- ✓ Minutes of meetings.
- ✓ Site visits.
- ✓ Level of labour unrest and number of disputes.
- ✓ Feedback at meetings.
- ✓ Progress, Annual reports.
- ✓ Audit.
- ✓ Publications.
- ✓ Database.

The SMME involvement on this project was crucial. At one stage the financing was stopped in order to bring the SMME involvement and the development approach in line.

11.8 Logframe 4x4 matrix for Technikon Pretoria Project Phase 1

As a logical framework was not originally done at the appraisal phase of the project, the following logframe was constructed from the information that was available. The information collected and included into the design and implementation logframe are used to evaluate the project. The framework proposed in Section 11.9 was developed to take into account the needs for an evaluation based on logframe.

Table 11.1: Logframe matrix for a project's design and appraisal phase

The Goal and Purpose are demand driven formulated from the beneficiary & clients' viewpoint

Description & Qualification	Indicators KPIs	Means of Verification.	Assumptions & Conditions
Goal: (or Expected Impact) The goal of the Technikon Pretoria Project is that it will contribute to economic development by providing qualified person power to the economy The creation of a better-trained technician level will have spin-offs in terms of increased efficiency of workers. This in turn will facilitate economic growth and ultimate job creation.	# Job opportunities % courses in line with economic needs	=Tracer studies. =White Paper. =Education and econ.	+ Economic growth. + Attitude of Minister of education.
<u>Purpose</u>: (or Objectives & Outcomes) That the project will be accepted and utilised by the client and all the stakeholders, specifically regarding the following modules: *Socio-economic *Institutional *Social *Educational *Environmental *Technical *Financial *Economic	<u>Non-quantifiable:</u> *Stakeholder feedback. *Demand for education & training. Acceptability of outputs for each module. Utilisation of outputs by each module. <u>Quantifiable:</u> # Qualified graduates. # satisfied staff. # problems experienced.	=Feedback at meetings minuted. =Progress, Annual reports. =Audit. =Publications . = database.	+Political, Managerial support & commitment. +Sufficient funds allowed for efficiency. +Commitment inhabitants. +Community participation.

Abbreviations: # : Number of; = : To be found in; + : Positive assumption

Supply driven: Products of the project

Description & Qualification	Indicators KPIs	Means of Verification.	Assumptions & Conditions
Outputs: (or Deliverables) The following outputs will be delivered: 1. The building of a 11436sq m admin building 2. Landscaping and parking in line with the: -Technical -Environmental -Institutional -Social requirements set in the appraisal report. It will also include: Recommendations on allocation of funds; Reports on progress of reconstruction process Recommendations in respect of structures, processes and legislation to handle similar operations in future.	# sq m built # sq m landscaping R disbursed successfully R paid to contractors Technical aspects Financial	=Minutes of meetings. =Technikon database and info. =Legal Documents. =Auditors report	+Successful obtaining of funding and support which will produce the adjacent Output, in order to support the above Objectives & ultimate Goal.
<u>Activities</u>: (& inputs) In order to provide the above output the following activities were necessary: 1. Institutional arrangements 2. Budget 3. Finances 4. Social aspects ✓ Gather information ✓ Verify ✓ Assess capacity of line Departments & Provincial / Local Government to undertake construction; ✓ Compile recommendations on allocation of funds; ✓ Monitor and prepare reports on various stages of construction process	# Meetings held # Successful budgeting by team # Key performance indicators (KPIs) Quantification of all activities per module	=Feedback reports. = =Financial records. =Minutes of meetings.	+ Creation of infrastructure, funding

Abbreviations: #: Number of; =: To be found in; +: Positive assumption
Source: Van Rensburg 2001: Interview

11.9 Evaluation of Key Performance Indicators (KPIs) for the Before, Envisaged and After situation

Please note that not all the indicators can be directly linked to the specific project investment. Although a modular approach was followed as far as possible, some overlaps occurred between the modules. The Parameters and Key Performance Indicators (KPIs) used were identified by the Evaluation Team and summarised in the Logical Framework. The **Before** situation is the situation with the client before the Development Bank's intervention (±1997), the **Envisaged** situation is the expected impact planned or envisaged by the appraisal team (±1998), while the **After** situation is how the Evaluation Team found the situation (April 2001), with the Evaluation Team Rating (ETR). The following CORE ratings were used for the ETR:

 =Highly satisfactory;  =Satisfactory;  Not applicable;  Unsatisfactory;  =Highly unsatisfactory

Table 11.2: Logframe matrix for a project's evaluation
Technical inputs (activities), outputs, outcomes and impact

KPIs (Key Perf. Indicators)	BEFORE (Before 1997)	ENVISAGED (Planned, 97/98)	AFTER SITUATION (At evaluation, April-May 2001)	ETR
Input (or activity) indicators (refer to the Logframe approach)				
Cost per Sq M for Building	-	±R2000/m²	±R3000/ m² More than planned but saved on other costs.	
Total building & landscaping cost	-	R45.1m	R42.9m at 95% disbursement. No cost overruns on total.	
Use appropriate technology	Received limited attention in the past	Within capability of Technikon staff	Maintenance cost low & carried out by own staff. Some minor problems	
Use of local resources	Received limited attention in the past	Local content important	90% building material, 60% labour, 40% equipment from Tshwane	
Output indicators (refer to the Logframe approach)				
Coped with Topography	Slope of site difficult to deal with	Overcome by the form of the building	A multilevel approach overcame this problem successfully	
Affordability of building	Fragmented admin services inconvenient	Positive assessment	Project represents value for the standards achieved	
Integration of other buildings	No building on that site before	Admin to integrate other buildings	Buildings successfully integrated with covered walkways & paving	
Outcome indicators (refer to the Logframe approach)				
Acceptability of Aesthetics	Campus had no focal point	To establish a focal point	Admin is the flagship of the campus & adds to the ambience.	
Acceptability of landscaping	Campus had no focal point	An integrated focal point	Landscaping and water features integrated successfully with admin.	
Acceptability to staff & students	Fragmented admin services inconvenient	To rectify the situation	Staff & students highly pleased with the end result	
Impact indicators (refer to the Logframe approach)				
Impact on SMMEs	Large firms mainly used on their projects	DBSA to change situation	Successful: E.g.15 SMMEs with ±829 jobs & training	
Training spent on SMMEs	None	Training during building	Training budget = R254 260 which involved 110 people training places	

Environmental inputs (activities), outputs, outcomes and impact

Input (or activity) indicators (refer to the Logframe approach)				
Dust control during work	Dust problems experienced	Planning to limit dust problems	Team satisfied that dust problem was managed well	
Waste management	Construction waste foreseen	Appropriate arrangements	Waste was used as infill. No toxic waste was encountered	
Output indicators (refer to the Logframe approach)				
Handicapped accessibility	Inconvenient	To rectify the situation	Now accessible to handicapped people & suitable toilets provided	
Flood control interventions	Steep slopes gave problems	To provide for drainage	General flood control has been well-managed	
Outcome indicators (refer to the Logframe approach)				
Blending in with existing buildings	Several existing structures	Blending	Blend in & integrate successfully with other buildings	
Sick building syndrome	-	With open halls, no problem envisaged.	Open halls. Full Fresh Air HV System installed for the rest	
Impact indicators (refer to the Logframe approach)				
Environmental impact	Impact and integration limited	Environmental impact and integration	Whole project has successful environmental impact.	
Plants: Impact and sustainability	-	To use indigenous plants	Successful as minimal irrigation, pest control & chemicals needed.	
Impact on safety measures	-	Violence and crime prevention	Open designs have a positive impact against crime	

Financial inputs (activities), outputs, outcomes and impact

Input (or activity) indicators (refer to the Logframe approach)				
Loan conditions and period	Limited to 10 years by commercial banks	Loan-period of 20 years required	Loan approved by DBSA over 20-year period	
Investments: unit trusts, shares,etc	R8.2m in 1996	-	R18.8m on 31 Dec 2000	
Investment in sinking funds	R25.1m in 1996	-	R42.0m on 31 Dec 2000	
Cost of the building alone	-	Loan request= R24m Later budget=R33,9m	R32,3m (95% disbursement)	
Cost of the landscaping	-	Loan request=R11m Later budget=R1.4m	R2.8m	
Cost escalation	-	R3 260 000	R818 753	
Professional fees	-	R4 834 000	R6 041 093	
Output and outcome indicators (refer to the Logframe approach)				
Solvency ratio: Debt cover	44% in 1998	50% = DBSA norm	74% on 31 Dec 2000 (is high due to long term pension liabilities)	
Solvency ratio: Debt ratio	37% in 1998	80% = DBSA norm	61% on 31 Dec 2000	
Solvency ratio: Debt equity	35% in 1998	70% = DBSA norm	96% on 31 Dec 2000 (due to long term pension liabilities)	
Liquidity ratio: Debt collection	24.8 days	45 days = DBSA norm	16.8 days (due to improvement in student fee collection admin.)	
Liquidity ratio: Creditor payment	24.4 days	30 days = DBSA norm	45.3 days (good, but only as long as creditors are willing to wait)	
Liquidity ratio: Current ratio	0.66 : 1 in 1998	1.5 : 1 = DBSA norm	0.26 : 1 on 31 Dec 2000 (Year end low, fees flowing in Jan)	
Liquidity ratio: Cash+ivestm/liab	0.3 : 1 in 1998	0.5 : 1 = DBSA norm	0.16 : 1 on 31 Dec 2000 (Year end low, fees flowing from Jan)	
Total revenue increase	R352.6m in 1998	-	R501.2m in 2000	

Government contributions	R175.2m	-	R251.8m	
Student debt carried over	R 0 in 1994 R23,2m in 1997	To effectively admin. student debt	R 18m in Dec 2000 R 10,7m in Jan 2001	
Risk	-	Low risk investment	Low risk investment	

Institutional inputs (activities), outputs, outcomes and impact

Output indicators (refer to the Logframe approach)				
Capacity on max students	Maximum of 32000 on-campus students	Accessible to larger number of students	Admin capacitated to accommodate 64 000 students.	
Space occupied by Registration	Scattered all over the campus.	To rectify the situation	Cost-effective centralized cubicle system	
IT and computer capability	Limited IT capability	Admin increased IT capability	Teaching material distributed electronically cost-effectively.	
Integrated IT network	Limited integrated IT network	Better integrated IT network	All Faculties & satellites linked into an integrated IT mainframe	
Outcome and impact indicators (refer to the Logframe approach)				
Independency as institution	Legislation proposed amalgamation	Appraisal team did not comment on this	Now no need to amalgamate with other institutions.	
Communication with satellites	Time-consuming	To improve the situation	Considerably improved through new administration building	
Electronic linkages	Limited electronic linkages	Better electronic linkages	Linkages established with local and foreign universities.	
Student racial composition	Up to 1993 predominantly white	Transform in line with demographics	In 2000: Black : White = 81 : 19	
Staff morale and productivity	Not always desirable due to fragmentation	To rectify the situation	Improved considerably due to new working environment	
Outsourcing of services	Some functions were already outsourced	Outsource further non-core functions	Canteen/restaurant in new building, Catering outsourced	
Registration time per student	Up to 6 hours, often spread over 2 days	To expedite the registration process	New admin. registration time less than 10 minutes per student.	

Social inputs (activities), outputs, outcomes and impact

Outcome and impact indicators (refer to the Logframe approach)				
HIV/AIDS handling	Limited capacity to handle	To equip students with life skills	A well functioning HIV/AIDS centre established	
Male female composition	'94: 9109=62%males 5492 = 38% females	Gender equality	20379 = 54%males and 17271 = 46% females in 2000	
Student Racial composition	1994 = 75% White & 25% Black students	To be representative of population	2000 = 20% White and 80% Black (African, Coloured, Indian)	

Socio-Economic inputs (activities), outputs, outcomes and impact

Outcome and impact indicators (refer to the Logframe approach re utilization)				
NPV Benefit) @ 5% disc ratio	-	R681,5m	R68,4m (Although still high, it is much lower than the envisaged)	
NPV Costs @ 5% disc ratio	-	R63,8m	R35,9m	
NPV Total @ 5% disc ratio	-	R617,7m	R32,5m (Envisaged R617,7m NPV seems to be too idealistic)	
Cost benefit analysis: ERR	-	21%	14% (Although satisfying, it is lower than the envisaged)	
Cost benefit analysis: BCR	-	11:1	2:1 (Although still satisfying, it is much lower than the envisaged)	
Benefits during construction	-	Not calculated	R10,8m	

Job creation	-	Job creation. Not quantified	Project created 829 employment opportunities	
Monetary value of skilled jobs	-	Not quantified	R30,3m	
Monetary value of unskilled jobs		Not quantified	R 6m	
Multiplier effects on economy	-	Positive about externalities	Influx of capital, current exp created multiplier climate	

Educational inputs (activities), outputs, outcomes and impact

Outcome and impact indicators (refer to the Logframe approach)				
Academic space utilisation	Academic space occupied by admin	To free-up academic space	4600m² academic space freed-up	
Campus utilization	Departments fragmented	To eliminate fragmentation	No more fragmentation, own space per department	
Accessibility to future students	Maximum 32 000 students	Increase academic capacity	Technikon academic capacity increased to 64 000 students	
Training utilization	1994: 3284=23%, = Engineering students	To increase 'technical training'	2000: 3659 Engineering students = 10% of total 37650 students	
Technical vs. other training util.	1994:Economics 30% IT 15%,Other 32%	To increase 'technical training' utilization	2000: Economics 24%, IT 50%,Other 17%	
Foreign student recruitment	Focus only on SA students	A significant Southern African HE institution	Enrolling a large number of foreign students e.g. Botswana	
Academic utilization	Limited facilities to provide assistance	To assist students academically	Introduced vacation schools for failures, with 85% success rate	
Acceptable staff turnover	-	To create a good working environment	Staff turnover down to 5%	
Academic partnerships	-	Must keep pace with developments	58 formal partnerships with institutions in 20 countries.	

11.10 Conclusions

Please note that the Pretoria Technikon project was not originally designed with the Logframe in mind. The design Logframe was developed from appraisal information in order to illustrate the use of the evaluation logframe.

From the design and evaluation Logframes it is clear that the design of a project or endeavour is not only a technical matter. In the past tools such as PERT and CPM could be used to facilitate the technical process and ensure the timely output. This will no more be the case. It is important that the Logframe be accepted as a design tool for projects to ensure development logic. Logframes are not something to be done by evaluators at the end of the project cycle but should be reviewed throughout the project cycle. It is a way of thinking outcomes instead of outputs. The question What is being done should be enhanced by Why it is being done.

An endeavour of this magnitude needs a modular approach to look at all the facets including the technical module. The Logical Framework is an excellent tool to

facilitate the modular approach with indicators and evaluation concepts. Evaluators are interested in the before, envisaged and after situation of an endeavour. The above framework provides answers in a condensed format by making use of the Logframe and indicators.

Chapter 12. Findings, recommendations, conclusions, limitations and further research

12.1 Findings and recommendations from the literature review chapters

Management, entrepreneurship and small business management experienced decades of rapid growth after the fall of communism, but after the disaster of 11 September 2001 which destroyed the World Trade Centre in New York, business as usual will never be the same again. Therefore this thesis took a new look at evaluation concepts and constructs such as, ethics, reappraisal, responsibility, outcomes, impact and accountability, and their importance to management, entrepreneurship and small businesses. It underlined the importance of triple bottom line non-financial accountability: Social responsibility, ethical standards, and environmentally sustainable development.

Within a proposed new management paradigm backed by evaluation constructs, the thesis elaborated on the question: Are we doing the things right?; and how it could be enhanced by the question: Are we doing the right things? Therefore one of the most important conclusions is that evaluating efficiency (things right) should be followed by evaluating effectiveness (right things). Although processes and especially outputs are important, the thesis illustrated how evaluation is shifting its emphasis to outcomes and impact, thus from efficiency measurement to effectiveness measurement. This paradigm shift is crucial but might be difficult for enterprises built on processes, performance, production and profits. Hopefully these changes in business outlook will offer opportunities to entrepreneurs propagating evaluation concepts and constructs.

Evaluating economic development is one of the prime targets for the evaluation science and enterprise. Both evaluation and development have many years of practice. Development evaluation changed the emphasis and direction of economic development worldwide. The increased use of evaluators to improve economic development performance is obvious and the major use of evaluation results was for purposes of program improvement. The evaluation itself is an intervention and instrument of social change in many development interventions. This thesis also emphasises the fact that evaluation is not something done to people but with people.

Given the above summarised literature study findings the null hypothesis $1H_o$ is accepted: Evaluation as science and as enterprise are contributing to positive changes in the development fraternity. (Please refer to Section 1.4.2).

Related to the $1H_o$ the second hypothesis $2H_o$ is also accepted based on the literature review: Evaluation concepts can be successfully used in SMMEs.

Businesses already go beyond their traditional role of maximising shareholder value, employing people, paying taxes and keeping within law as business is emerging as a principal engine of growth and development. Development economists have recognised the importance of the entrepreneur. Chapter 4 pointed out how evaluation could bring new value to management and entrepreneurship. Entrepreneurs should have an Evaluative Focus when they plan their endeavours.

To enhance this, evaluations should be mainstreamed by managers and entrepreneurs by widening their perceptions and making evaluation constructs a part of organizational culture. Evaluation holds great promise in providing stakeholders with badly needed information, which can be used to improve management and entrepreneurship. Evaluation is a science but also an enterprise in its own right.

International funders require greater accountability from management, entrepreneurship and small businesses. This is fortunate for businesses that are becoming good corporate citizens with emphasis on corporate social investment and responsibility. Evaluations are necessary to maximise development outcomes and impacts for all inhabitants, while accountable entrepreneurship and responsive management also aim to maximise development outcomes, impacts and the well-being of all people involved.

The thesis stressed the fact that evaluation should be an integral part of an organization's everyday operations. The corporate evaluator should, similar to the corporate entrepreneur (or intrapreneur), be recognized as a potentially viable means for promoting and sustaining corporate efficiency, effectiveness, competitiveness, innovation and creative ideas. The role of the evaluator, especially the corporate evaluator, shows similarities with the definitions of a corporate entrepreneur, as evaluations should be innovative; it should create new ideas on old issues, and should investigate alternative ways to reach efficiency and effectiveness.

There is an increasing demand for good evaluations to assess the effectiveness of business endeavours in achieving their objectives and to estimate the impacts they have produced on the intended beneficiaries. The thesis placed a strong emphasis on simple and economical evaluation approaches, stressed the fact that the

evaluation enterprise is becoming big business, and evaluators are like entrepreneurs also looking for business opportunities.

The use of evaluation concepts and constructs is an opportunity that entrepreneurs and managers should not overlook. This will not only buy them goodwill from stakeholders, but will facilitate to optimise their efficiency and effectiveness. It is thus of utmost importance for entrepreneurs and managers to acquaint themselves with evaluation concepts and constructs. Entrepreneurs and managers should take leadership in propagating and utilising evaluation concepts and prove that it can contribute to their success.

Thirdly, from the economic development and entrepreneurial applications of the evaluation enterprise and science and based on the literature review the third hypothesis $3H_o$ is also accepted: Evaluation concepts, theory and practice can be successfully used in women construction SMMEs.

Women are nowadays regarded as the hidden resource of construction entrepreneurial potential and development. The World Bank spends approximately $40billion (R350billion) and the Development Bank of Southern Africa about R3billion on development projects per annum. A large percentage of these funds find their way to the construction sector, and is earmarked for qualifying women entrepreneurs. Women construction entrepreneurs who acquaint themselves with the DFI prescriptions will find it much easier to obtain business opportunities. DFIs do not bring in their own people from their own countries to do the construction, but make use of local construction entrepreneurs that understand development evaluation concepts and operate within the legislation and enabling measures of that specific country. At the moment the legislation and procurement procedures in South Africa benefit women and are inherently important windows of opportunity for women construction entrepreneurs.

Women construction entrepreneurs who acquaint themselves with evaluation principles will find it much easier to obtain business opportunities. The thesis also come to the conclusion that to be successful, women construction entrepreneurs should have an evaluative focus, women should 'think evaluation' and foster an evaluation culture in order to give them this competitive advantage in accessing business opportunities.

Corporate leaders, management and entrepreneurs are seeking tools to enable them to manage evaluations. The current complex technical language creates a barrier to the spread of monitoring and evaluation. It is important to understand the use, benefits and technical language of evaluation tools, logical development thinking, logic models and outcome constructs. Logical modelling is an extension of PERT, because it reaches beyond the output phase by emphasising outcomes. No endeavour will ever again be regarded as complete when the output only is completed. Processes are important, but they are only the first step towards outputs, outcomes and finally impact. Models offer evaluators structure and support. The practice of social and ethical accounting, auditing, evaluation and reporting provides a set of tools that can address these emerging needs. The literature on objective-oriented evaluation is extensive, filled with creative ideas for applying the outcomes approach.

The Logical Framework or Logframe is one of the most important evaluation tools. The Logical Framework not only integrates the outcomes construct, but also adds value to the outcomes construct by presenting it in a useable framework integrated with qualitative and quantitative aspects. The Logframe puts logical development thinking into a framework.

The Logframe is one of the most flexible evaluation tools. The Logical Framework described integrates the outcomes construct with outputs and impact through its vertical logic. It also adds value to the activity, output, outcome and impact constructs by presenting it in a useable framework integrated with qualitative and quantitative aspects through its horizontal logic. Based on the above findings from the literature the fourth hypothesis $4H_o$ is accepted: Logic modelling and outcome constructs can be successfully used to empower women construction entrepreneurs. The fifth hypothesis $5H_o$ is also accepted: Logframes can be successfully used to empower women construction entrepreneurs.

This thesis illustrated how business plans could benefit from the logical development thinking and the logframe concept. Managers and entrepreneurs already have to include Logframes in their business plans where international or development funding is at stake in order to answer 'why' and 'so what' questions, and Logframes became the defacto standard for international development project design and evaluation.

12.2 Findings and recommendations from the empirical study chapters

Due to the detailed and technical nature of the hypothesis and constructs the acceptability of women construction entrepreneurs were formulated separately for the empirical study. (Please refer to Sections 8.5 and 9.5).

An instrument was successfully developed to apply the Logical thinking approach of evaluation to women construction entrepreneurs. Given the results of the Cronbach Alpha and Factor analysis, the instrument developed to apply the logical thinking approach especially for the acceptability element of the Outcomes construct, proved to be reliable and valid. This instrument could be used for similar studies in future.

The null hypotheses were accepted for Constructs 1 to 8, which are more or less all technical skills and outcomes. The acceptance of H_0 implies a significant statistical and practical difference in the acceptability of the outcomes and skills of male and female entrepreneurs. In all these cases the difference in means implies that the male and female respondents both feel that males are significantly better than female construction entrepreneurs in technical skills and outcomes, and that these technical outcomes and skills of women construction entrepreneurs are not acceptable even for the female respondents. On the technical skills and outcomes women construction entrepreneurs need to work hard to change these negative perceptions.

For Construct 3, Carpentry, the ANOVA pointed out that the officials of the Department of Public Works (DPW) adjudicating tenders and business opportunities are far more negative than the local government officials handling feedback from clients about women carpentry entrepreneurs. This is in line with the queries of women in construction that because of such barriers they are not able to access the available business opportunities in order to prove their skills and outcomes.

Both male and female respondents agreed that women are better than men on traditional African building, thatching, painting and flooring. The differences were however not significant. ANOVA pointed out that the private sector allocating business opportunities, are far more positive than the local government officials in accepting women entrepreneurs involved in traditional African building.

Constructs 10 to 13, which are education, management and business related, leave a negative connotation. In all four constructs neither males nor females have acceptable skills and outcomes because all their means are below 2.5. This finding has profound implications regarding the planning of training strategies for both men

and women construction entrepreneurs. The past emphasis placed on technical training should make place for education, management and business related training and entrepreneurial programmes.

On Construct 13 (tendering) it was found that even female respondents are more negative about women in construction than male respondents. This strengthens the belief of women in construction that their tenders are not accepted. In Construct 11 (management) and C12 (innovation) female respondents accepted male entrepreneurs above women construction entrepreneurs, while male respondents accepted women construction entrepreneurs above males.

The Anova pointed out a statistical and practical difference in C13 (tendering) between the opinions of the private sector S4 and S1 DPW adjudicating tenders. This implies that the DPW finds the outcomes and skills of women entrepreneurs on tendering acceptable, while the private sector does not agree that their skills and outcomes on tendering are at an acceptable standard. This finding is also in line with the opinion of women in construction that they do not get adequate access to construction business opportunities. They could thus obtain more business opportunities if their tendering skills are upgraded.

As SAWiC is operational for three years, both the acceptability and utilization elements of the outcomes construct were tested in a second empirical study.

Given the results of the Cronbach Alpha and Factor analysis, the instrument developed to apply the logical thinking approach especially for measuring the acceptability and utilization elements of the Outcomes construct, proved to be reliable and valid. This instrument could also be used for similar studies in future.

There is a significant positive attitude towards SAWiC's outcomes in measuring their acceptability, as well as the utilisation of their training and networking opportunities by both male and female entrepreneurs in all nine provinces. Despite the fact that SAWiC is based in Midrand, the lack of provincial differences points out that SAWiC succeeds in being accepted and being utilised by all provinces equally.

The acceptance by men of SAWiC is an important finding for SAWiC as one of their slogans is "Women in Construction ... Supported by Men in Construction." As SAWiC is a women's association, no males can become construction entrepreneurs in SAWiC, but in order to obtain the support of males the policy of SAWiC to include males under the 'Service Provider' category seems to be successful.

12.3 Findings and recommendations from the case study chapters

The aim of Chapters 10 and 11 was to illustrate that, similar to a project or endeavour, an institution should be efficient in its daily processes and activities and should deliver a product or output. However, to be effective, outcomes should be stated under the objectives and the envisaged impact should be stated under the goal. For institutions and businesses to develop from process thinking to outcome thinking is crucial to ensure development effectiveness.

The Logframe construct was as a case study successfully applied to an institution. The institution in this case study is the South African Women in Construction Association (SAWiC). The Logframe developed in this case study is in line with the business plan prescriptions of international development finance institutions (DFIs). The versatility of the Logframe as a design tool is evident from the above illustration. Although Logframes should never replace business plans, if the Logframe is not used, institutions easily formulate their business plans only in a process mode, without asking the questions WHY or SO WHAT.

The incorporation of the logical development approach and evaluation approach using specialist modules on a construction project was implemented successfully. Evaluators are interested in the before, envisaged and after situation of an endeavour. The framework provides answers in a condensed format by making use of the logframe and indicators. Logical development models and Logframes were originally developed to serve as design, implementation and evaluation tools to ensure development effectiveness in development projects. In line with the Schematic design of this thesis presented in Chapter 1, Chapter 11 handled the Logframe on the project design and evaluation levels.

It is important that the Logframe be accepted as a design tool for projects to ensure development logic. Logframes are not something to be done by evaluators at the end of the project cycle but should be reviewed throughout the project cycle. It is a way of thinking outcomes instead of outputs. The question What is being done should be enhanced by Why it is being done.

12.4 Conclusions

Development evaluation constructs and concepts can be successfully utilised to benefit managerial and entrepreneurial theory and practice. The construct of Outcomes proved to be helpful within the concept of Logical Development Thinking

and Logical Frameworks by exploring the effectiveness of business endeavours. At the design phase evaluation constructs and Logframes could have a positive impact on future business plans. To qualify for international business opportunities women construction entrepreneurs should take note of logical frameworks.

Business plans for development related institutions should be in line with the evaluation concepts discussed in Chapter 2, the economic development concepts, Millennium Development Goals and World Summit on Sustainable Development discussed in Chapter 3, the entrepreneurial and managerial concepts of Chapter 4, and of course the gender principles discussed in Chapter 5. The logical development models of Chapter 6 and especially the Logframe described in Chapter 7 can be utilised to design 'outcomes' sensitive business plans.

12.5 Limitations of the thesis and further research

Literature of evaluation constructs in business are scarce and in most cases non-existent. To overcome this problem the success of parallel situations had to be used as such from the development fraternity.

Only the Outcomes construct and especially the Acceptability and Utilization elements could be tested empirically within the scope of this thesis. Given the extensive literature on the topic of evaluation, there is space for further empirical research on evaluation constructs.

This thesis mainly illustrated how management and entrepreneurship could benefit from evaluation constructs. Research is also needed on how evaluation theory and practice could be enriched by managerial and entrepreneurial sciences.

This thesis utilised women construction entrepreneurs as field of practical application. However, women are nowadays regarded as the hidden resource of construction entrepreneurial potential and development and are an important research topic on its own.

Due to the low utilisation of women in the construction enterprises the outcomes study of women only dealt with the acceptability aspect. As women are being utilised more, research could include utilization aspects in future.

The reasons why women got involved in a male dominated construction industry might be an interesting topic for further research.

The impact of other international organisations for women on the outcomes of women in construction in these countries lends itself to a useful comparative analysis.

Logframes should never replace business plans, but more research is necessary to hone the use of Logframes in different types of business plans for different types of business ventures.

Different international funders are involved in construction endeavours worth billions of Dollars. This thesis only handled the Logical Framework prescriptions. Some DFIs also have various performance measures and requirements for greater accountability that needs to be investigated in order for entrepreneurs to access these business opportunities successfully.

Social Accountancy Matrixes (SAMs) could be used to determine the impact of women in the construction sector on the macro economy by means of an Input-output analysis.

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m6 Module 6. Data Collection Methods
m7 Module 7. Sampling
m8 Module 8. Data Analysis and Interpretation
m9 Module 9. Presenting Results
m10 Module 10. Putting it all Together
m11 Module 11. Building a Performance-Based Monitoring and Evaluation System
m12 Module 12. Development Evaluation Issues

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Interviews

Questionnaires:

Questionnaire for Chapter 8:
Needs analysis of Contract providers, sources and originators regarding outcomes of SMME construction entrepreneurs

Who should fill out this questionnaire?
This questionnaire is directed to government officials, development finance institution staff, main contractors, service providers and employers in the public and private sector who are responsible for decision-making regarding the appointment of contractors or sub-contractors, for awarding public or private sector projects and tenders, and for the allocation of any construction related business opportunities to SMME entrepreneurs.

What is this questionnaire all about?
This part of the SAWiC Research Program is investigating the opinions of contract providers, (including contract sources and originators) on their needs regarding qualities of SMME construction entrepreneurs. The results will be used to align SAWiC's training activities and planning accordingly.

When answering the questions, please take into account the general trend of the majority of SMME entrepreneurs tendering for the construction opportunities that you, your manager or your principals need to decide on.
On a scale of 1 to 4, how would you rate the issues regarding Female and Male construction entrepreneurs? (Women in Construction vs. Men in Construction)

Please encircle O your choice:
1= Bad & not acceptable; **2**=Acceptable but needs improvement; **3**=Good; **4**=Excellent

	Entrepreneurs: or Contractors:	**Female Women**	**Male Men**
1.	**Education, training and skills background**	1 2 3 4	1 2 3 4
2.	**Technical building construction skills**	1 2 3 4	1 2 3 4
2.1	Understanding site plans and drawings	1 2 3 4	1 2 3 4
2.2	Levelling and site readiness	1 2 3 4	1 2 3 4
2.3	Layout of buildings on site	1 2 3 4	1 2 3 4
2.4	Understanding architect plans	1 2 3 4	1 2 3 4
2.5	Foundations and engineering knowledge	1 2 3 4	1 2 3 4
2.6	Brickwork skills	1 2 3 4	1 2 3 4
2.7	Bricklaying skills	1 2 3 4	1 2 3 4
2.8	Plastering skills	1 2 3 4	1 2 3 4
2.9	Walling	1 2 3 4	1 2 3 4
2.10	Cement flooring and finishing skills	1 2 3 4	1 2 3 4
2.11	General carpentry skills	1 2 3 4	1 2 3 4
2.12	Hanging of doors, cupboards	1 2 3 4	1 2 3 4
2.13	Roof timbering	1 2 3 4	1 2 3 4
2.14	Ceilings	1 2 3 4	1 2 3 4
2.15	Roof covering	1 2 3 4	1 2 3 4
2.16	Plumbing skills	1 2 3 4	1 2 3 4
2.17	Drainage	1 2 3 4	1 2 3 4

		Female entr.	male entrepr.
2.18	Fitting bathrooms	1 2 3 4	1 2 3 4
2.19	Water piping	1 2 3 4	1 2 3 4
2.20	Electricity and lighting	1 2 3 4	1 2 3 4
2.21	Electric tubing	1 2 3 4	1 2 3 4
2.22	Electric wiring	1 2 3 4	1 2 3 4
2.23	Hot water geyser installations	1 2 3 4	1 2 3 4
2.24	Wall Tiling	1 2 3 4	1 2 3 4
2.25	Windows and glazing	1 2 3 4	1 2 3 4
2.26	Painting skills	1 2 3 4	1 2 3 4
2.27	Carpets and floor-tiling	1 2 3 4	1 2 3 4
3.	**Other technical construction skills**	1 2 3 4	1 2 3 4
3.1	Paving skills	1 2 3 4	1 2 3 4
3.2	Curbing and sidewalks	1 2 3 4	1 2 3 4
3.3	Road works	1 2 3 4	1 2 3 4
3.4	Storm water and culverts	1 2 3 4	1 2 3 4
3.5	Gabions and retaining of roadsides	1 2 3 4	1 2 3 4
3.6	Road maintenance	1 2 3 4	1 2 3 4
3.7	Grass cutting along sides of roads	1 2 3 4	1 2 3 4
3.8	Cleaning of paved areas	1 2 3 4	1 2 3 4
3.9	Fencing and gates	1 2 3 4	1 2 3 4
3.10	Traditional African building skills	1 2 3 4	1 2 3 4
3.11	Traditional thatching skills	1 2 3 4	1 2 3 4
3.12	Traditional painting of walls	1 2 3 4	1 2 3 4
3.13	Traditional flooring skills	1 2 3 4	1 2 3 4
3.14	Erection of traditional tourist attractions	1 2 3 4	1 2 3 4
4.	**General Education skills**	1 2 3 4	1 2 3 4
4.1	Language proficiency	1 2 3 4	1 2 3 4
4.2	Tender documentation concepts	1 2 3 4	1 2 3 4
4.3	Understanding technical terminology	1 2 3 4	1 2 3 4
4.4	Understanding procedures	1 2 3 4	1 2 3 4
4.5	Empowerment language and legislation	1 2 3 4	1 2 3 4
4.6	Procurement language procedures	1 2 3 4	1 2 3 4
4.7	Awareness of health, safety and HIV	1 2 3 4	1 2 3 4
4.8	Awareness of environmental sustainable development	1 2 3 4	1 2 3 4
5.	**General Managerial and Business skills**	1 2 3 4	1 2 3 4
5.1	Financial management	1 2 3 4	1 2 3 4
5.2	Project management	1 2 3 4	1 2 3 4
5.3	Personnel and resource management	1 2 3 4	1 2 3 4
5.4	Turnover and cash flow projections	1 2 3 4	1 2 3 4
5.5	Bridging finance and guarantees	1 2 3 4	1 2 3 4
5.6	Business plans	1 2 3 4	1 2 3 4

		Female entr.	male entrepr.
5.7	Creativity and innovation	1 2 3 4	1 2 3 4
5.8	Competitive edging	1 2 3 4	1 2 3 4
5.9	Culture and climate of business entity	1 2 3 4	1 2 3 4
5.10	Compliance regarding time frames and deadlines	1 2 3 4	1 2 3 4
6.	**Tender compliance, awareness and skills**	1 2 3 4	1 2 3 4
6.1	Managing tender documentation	1 2 3 4	1 2 3 4
6.2	Understanding procurement documentation	1 2 3 4	1 2 3 4
6.3	Tendering and Pricing	1 2 3 4	1 2 3 4
6.4	Interpreting prescriptions of contract providers	1 2 3 4	1 2 3 4
6.5	Understanding evaluation theory and practice	1 2 3 4	1 2 3 4
6.6	Legal requirements on enterprise status	1 2 3 4	1 2 3 4
6.7	Tax clearance documentation	1 2 3 4	1 2 3 4
6.8	Delegated authority to sign	1 2 3 4	1 2 3 4
6.9	Providing trackrecord, skill profiles and résumés	1 2 3 4	1 2 3 4
6.10	Providing information on marketing	1 2 3 4	1 2 3 4

7. What other training needs are necessary to make women construction entrepreneurs successful?

_____

_____

_____

8. What training do you or your organisation provide to empower women?

_____

_____

_____

9. What other empowering measures do you recommend for women construction entrepreneurs?

_____

_____

_____

10. Respondent's information:

Name:_____ Work title:_____

Company or Department:_____ Tel no:_____ Fax no _____

E-mail address:_____ Cell no:_____

	1	2	3	4	5
Years involved in construction:	0-1	2-5	6-9	10-19	20+

	1	2
Gender:	Male	Female

Main place of SA residence:

	1	2	3	4
Province:	Eastern Cape	Free State	Gauteng	Kwazulu-Natal
Limpopo (N.Pr)	Mpumalanga	Northern Cape	North West	Western Cape
5	6	7	8	9

Questionnaire for Chapter 9:

Confidential Questionnaire:
Outcomes Research on SAWiC
(SAWiC's acceptability and utilization in the construction industry)

Please encircle the following detail regarding yourself for demographic purposes:

	1	2	3	4	5
Age:	20 - 29	30 - 39	40 - 49	50 - 59	60+
Years involved in construction:	0-1	2-5	6-9	10-19	20+

	1	2
Gender:	Male	Female

	1	2	3
Marital details:	Married	Single parent	Single

Main place of SA residence:

	1	2	3	4
Province:	Eastern Cape	Free State	Gauteng	Kwazulu-Natal
Limpopo (N.Pr)	Mpumalanga	Northern Cape	North West	Western Cape
5	6	7	8	9

Please give your own opinion on each question or statement. Do not worry what other people might say about your opinion, as you are not going to put your name on the questionnaire. Do not ask your friend's opinion.

PLEASE COMPLETE THE FOLLOWING BY ENCIRCLING YOUR CHOICE IN THE SPACE PROVIDED

A: SAWiC membership information:

		1	2
1.	Are you a member of a professional or work related organisation other than SAWiC?	Yes	No
2.	Are you a member of the SAWiC Association?	Yes	No
3.	If no, would you like to become a member of SAWiC?	Yes	No
4.	Would you like to have your name on a detailed SAWiC database for distribution to clients nationally and internationally?	Yes	No
5.	Would you like to receive a SAWiC annual report?	Yes	No

B: Acceptability of SAWiC

Give your own opinion on the following statements. Encircle only one number per statement: **(Disagree strongly =1, Disagree =2, Agree =3, Agree strongly =4)**

1.	**SAWiC is fulfilling an important role to empower women**	1 2 3 4
2.	**SAWiC meetings are important for women in construction**	1 2 3 4
3.	**SAWiC should have more contact sessions during the year**	1 2 3 4
4.	**The SAWiC Secretariat and office should be expanded**	1 2 3 4
5.	**SAWiC should be more active in all the provinces**	1 2 3 4
6.	**What can SAWiC do to increase its acceptability?**	

6.1 _____

6.2 _____

C: Utilisation and benefit of SAWiC

1. Do you see that SAWiC involvement could benefit women with the following:

Please complete this section by encircling the most appropriate number in the box:

		Strongly Disagree (No)	Disagree	Agree	Strongly Agree (Yes)
1.1	To become aware of business opportunities & contracts through presentations and documents being distributed?	1	2	3	4
1.2	With topics discussed and training that could help you to take up business opportunities?	1	2	3	4
1.3	To gain self-confidence for taking up the challenges of the construction industry?	1	2	3	4
1.4	To meet other people in the construction sector that might have similar problems than yours?	1	2	3	4
1.5	To obtain contacts with suppliers that can open business opportunities?	1	2	3	4
1.6	To strengthen networks that can empower women for taking up new business opportunities?	1	2	3	4
1.7	To improve your access to finance for contracts and business opportunities?	1	2	3	4
1.8	To get insight into and to solve problems relating to discrimination against women?	1	2	3	4
1.9	To report discrimination to Government and the Construction Industry Development Board (CIDB)	1	2	3	4
1.10	To get insight into and to solve problems relating to technical matters in construction?	1	2	3	4
1.11	To make contact with international experts in construction through the affiliation with NAWIC (USA & Canada)	1	2	3	4
1.12	To make women entrepreneurs aware of HIV AIDS in the construction sector	1	2	3	4

2. How can SAWiC be made more useful as an association?

2.1 _____

2.2 _____