Loughborough University
Institutional Repository

An evaluation of
government-backed loan
scheme in Malaysia

This item was submitted to Loughborough University's Institutional Repository by the/an author.

Additional Information:

• A Doctoral Thesis. Submitted in partial fulfillment of the requirements for the award of Doctor of Philosophy of Loughborough University.

Metadata Record: https://dspace.lboro.ac.uk/2134/7183

Publisher: © Mohd Noor Mohd Shariff

Please cite the published version.
This item is held in Loughborough University’s Institutional Repository (https://dspace.lboro.ac.uk/) and was harvested from the British Library’s EThOS service (http://www.ethos.bl.uk/). It is made available under the following Creative Commons Licence conditions.

For the full text of this licence, please go to:
http://creativecommons.org/licenses/by-nc-nd/2.5/
AN EVALUATION OF A GOVERNMENT-BACKED LOAN
SCHEME IN MALAYSIA

by

MOHD NOOR MOHD SHARIFF

A Doctoral Thesis
Submitted in partial fulfillment of the requirements
for the award of Doctor of Philosophy of the
Loughborough University

March 2000

© by Mohd Noor Mohd Shariff. 2000
ACKNOWLEDGEMENTS

First and foremost, Praise be to Allah (SWT) for His blessings and guidance in giving me the strength and perseverance to endure this challenging journey.

I would like to express my gratitude to many people without whose support and encouragement this work would not have been possible. Foremost is Mr. Grahame Boocock, my supervisor, who has patiently extended his constructive criticism and painstaking advice throughout the research period. His availability, time and research experience have been invaluable in the completion of this thesis. I must also thank Professor Barry Howcroft (Research Director) and Mr. Keith Pond (supervisory panel member) who have both contributed significantly to the direction of this thesis. In addition, my special thanks goes to Dr David Coates who has given his time and expertise in explaining and strengthening the statistical aspects of my thesis.

I am grateful to the staff of the Banking Centre, particularly Mrs. Joyce Tuson, for her assistance in helping my research project. The staff of Credit Guarantee Corporation Malaysia Berhad, particularly Encik Wan Azhar Wan Ahmad (Chief Executive Officer). Encik Johar Haji Nor (Assistant General Manager). Mr Khoo Khim Ho (Senior Manager. Corporate Support) and Encik Mahat Abdullah were willing to participate in this study. I am obliged to them for their assistance.

I acknowledge the kindness of many Malaysian SMEs who participated in this study by answering my questionnaire. I am also indebted to the fifteen financial institutions and their borrowers who voluntarily participated in the time-consuming interviews for the case studies.

Finally, my deepest appreciation and gratitude goes to my sister Aishah; to my wife Normala, for all her compassion, patience, understanding and sacrifices; and to my beloved daughters, Mastura, Zubaidah and Shahirah who have been the joy of my life.
ABSTRACT

AN EVALUATION OF A GOVERNMENT-BACKED LOAN SCHEME IN MALAYSIA

SMEs are considered to be an engine for growth in both developed and developing countries, by generating employment opportunities, strengthening industrial linkages, securing home markets and earning valuable export revenue. Government-backed loan schemes play a major role in many countries, by enabling small and medium-sized enterprises (SMEs) to access credit facilities. The Credit Guarantee Corporation in Malaysia has been charged with this key role in assisting SMEs, and its main financing instrument is the New Principal Guarantee Scheme (NPGS).

The overall aim of this thesis is to examine the extent to which the NPGS is appropriate to the financing needs of Malaysian SMEs. The primary objective is to identify the factors that determine the utilisation of the NPGS; utilisation depends upon a number of demand and supply factors, as well as the characteristics of firms and owner-managers (OMs). An important secondary objective is to investigate the effectiveness of the NPGS, by exploring the generation of finance and economic additionality, as well as the net cost of the Scheme to the Treasury.

After a literature review, and the development of theoretical frameworks, a number of hypotheses are put forward. The methodological approach combines a questionnaire survey with case studies based on interviews with borrowers and financiers, and interviews with key informants. The questionnaire is principally concerned with the factors that affect the utilisation of the NPGS, whereas the case studies and interviews focus on the three elements of effectiveness. The questionnaire data are derived from a sample of firms from the CGC’s database. The sample includes firms involved in a variety of activities, from the manufacture of high-technology goods to the processing of resource-based products. Firms were randomly selected to adequately represent racial composition, legal structure and loan size within the CGC’s portfolio. The questionnaire data were supplemented by 15 in-depth case studies.

Two major findings emerge from this study. First, a number of independent variables did have a significant relationship on the utilisation of the NPGS: the amount of security or collateral; limited company status; manufacturing sector; size of firm; use of external advisers for fund raising; and the existence of written business plans. However, the majority of the hypotheses relating to the characteristics of OMs were rejected; the researcher offers some explanations for this apparent anomaly. Second, the case studies demonstrate that NPGS has achieved finance additionality comparable with achieved in guarantee schemes elsewhere, as well as a significant degree of economic additionality. The net cost of the Scheme was difficult to determine with any degree of precision.

On the basis of the research findings, the researcher is able to put forward a series of recommendations to improve the operations of the CGC.
# TABLE OF CONTENTS

Acknowledgements ...................................................................................................... ii

Abstract ........................................................................................................................ iii

Table of Contents ......................................................................................................... iv

List of Tables ................................................................................................................. viii

List of Figures .............................................................................................................. xii

Abbreviation ................................................................................................................ xiii

Chapter 1

INTRODUCTION

1.1 BACKGROUND TO STUDY .............................................................................. 1

1.2 OBJECTIVES OF THE STUDY ........................................................................ 4

1.3 RESEARCH QUESTIONS ................................................................................. 5

1.4 RATIONALE FOR THE STUDY ...................................................................... 11

1.5 POSSIBLE LIMITATIONS OF THE STUDY .................................................. 12

1.6 ORGANISATION OF THE THESIS .............................................................. 16

Chapter 2

REVIEW OF THE LITERATURE I: SME FINANCING IN MALAYSIA AND THE UNITED KINGDOM

2.1 INTRODUCTION .............................................................................................. 18

2.2 IMPORTANCE OF SMEs .............................................................................. 18

2.3 FINANCING OF SMEs IN MALAYSIA .......................................................... 19

2.4 AGENCY THEORY

2.4.1 Asymmetric Information .......................................................................... 26

2.4.2 Moral Hazard ............................................................................................ 28

2.4.3 Adverse Selection ...................................................................................... 29

2.4.4 Agency Costs and Collateral ..................................................................... 30

2.5 DIFFICULTIES IN RAISING FINANCE ....................................................... 32

2.5.1 Equity Gap ............................................................................................... 32

2.5.2 Debt Gap ................................................................................................... 36

2.5.3 Information and Knowledge Gap ............................................................. 37

2.5.4 Financial Skills Gap ................................................................................ 38

2.5.5 Summary on ‘Gaps’ ................................................................................ 39

2.5.6 Characteristics of Firm and OM ............................................................... 39

2.5.7 Financing Problems in Malaysia ............................................................. 47

2.6 GOVERNMENT POLICY TOWARDS SME FINANCING ............................... 51

2.7 SUMMARY ..................................................................................................... 54
Chapter 3

REVIEW OF THE LITERATURE II: CREDIT GUARANTEE SCHEMES IN DEVELOPED AND DEVELOPING COUNTRIES

3.1 INTRODUCTION .......................................................................................... 57
3.2 RATIONALE FOR CREDIT GUARANTEE SCHEMES ............................ 57
3.3 CRITERIA FOR EFFECTIVE GUARANTEE SCHEMES .......................... 60
    3.3.1 Risk Sharing .......................................................................................... 63
    3.3.2 Guarantee Fees ....................................................................................... 64
    3.3.3 Guarantee Claims and Debt Recovery ................................................... 65
    3.3.4 The Net Cost of Operating Guarantee Schemes .................................... 66
    3.3.5 Additionality .......................................................................................... 67
3.4 MODELS OF CREDIT GUARANTEE SCHEMES ..................................... 69
3.5 OPERATION OF THE CGC IN MALAYSIA .............................................. 81
    3.5.1 Introduction ........................................................................................... 81
    3.5.2 The CGC's Guarantee Schemes ............................................................ 83
    3.5.3 The Effectiveness of the CGC ............................................................... 89
3.6 SUMMARY ................................................................................................... 93

Chapter 4

THEORETICAL FRAMEWORK AND HYPOTHESIS

4.1 INTRODUCTION ........................................................................................... 96
4.2 CONCEPTUAL FRAMEWORK ................................................................... 96
4.3 MAJOR VARIABLES .................................................................................... 99
    4.3.1 Demand Factors ...................................................................................... 99
    4.3.2 Supply Factors ...................................................................................... 102
    4.3.3 Firm Characteristics ............................................................................... 105
    4.3.4 OM Characteristics ............................................................................... 107
    4.3.5 Finance and Economic Additionality ................................................... 109
    4.3.6 Net Cost ................................................................................................ 110
4.4 DEFINITIONS .............................................................................................. 110
    4.4.1 Small and Medium-Sized Enterprise (SME) ........................................ 110
    4.4.2 Dependent Variables ............................................................................. 112
    4.4.3 Independent Variables .......................................................................... 113
4.5 STATEMENTS OF HYPOTHESES ............................................................ 115
    4.5.1 Demand factors ..................................................................................... 115
    4.5.2 Supply factors ....................................................................................... 116
    4.5.3 Characteristics of firm .......................................................................... 116
    4.5.4 Characteristics of OM ........................................................................... 117
    4.5.5 Finance Additionality ........................................................................... 117
    4.5.6 Economic Additionality ........................................................................ 117
    4.5.7 Net Cost of NPGS ................................................................................ 118
4.6 SUMMARY .................................................................................................. 118
Chapter 5

RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION ......................................................................................... 119
5.2 RESEARCH STRATEGIES ......................................................................... 120
  5.2.1 Previous Research Methodologies ....................................................... 120
  5.2.2 Present Research Strategy ................................................................. 125
5.3 SAMPLING FRAME .................................................................................... 130
5.4 QUESTIONNAIRE DESIGN ........................................................................ 132
  5.4.1 Contents of the Questionnaire ............................................................. 133
  5.4.2 Pilot Study Prior to Questionnaire Distribution .................................. 138
  5.4.3 Data Collection .................................................................................... 139
  5.4.4 Non Response Bias .............................................................................. 141
5.5 CASE STUDIES ............................................................................................ 143
5.6 STATISTICAL ANALYSIS ......................................................................... 145
  5.6.1 Measurement of Variables .................................................................. 145
  5.6.2 Bivariate Analysis: Measures of Correlation & Test of Significance .. 146
  5.6.3 Factor Analysis .................................................................................... 149
5.7 SUMMARY .................................................................................................. 150

Chapter 6

THE NEW PRINCIPAL GUARANTEE SCHEME: RESULTS AND ANALYSIS

6.1 INTRODUCTION ......................................................................................... 152
6.2 PREPARATION OF VARIABLES FOR DATA ANALYSIS ..................... 153
  6.2.1 Independent Variables ......................................................................... 153
  6.2.2 Dependent Variable ............................................................................. 154
6.3 DESCRIPTIVE ANALYSIS ......................................................................... 155
  6.3.1 Firm Characteristics ............................................................................. 155
  6.3.2 OM Characteristics .............................................................................. 159
  6.3.3 Finance Additionality ........................................................................... 164
  6.3.4 Economic Additionality ........................................................................ 166
6.4 RESULTS AND ANALYSIS ........................................................................ 167
  6.4.1 Statistical Tests on the Hypotheses ...................................................... 167
  6.4.2 Summary of the Results ...................................................................... 185
6.5 FACTOR ANALYSIS ................................................................................... 186
6.6 SUMMARY .................................................................................................. 189
Chapter 7

CASE STUDIES: DISCUSSION AND ANALYSIS

7.1 INTRODUCTION .............................................................. 191
7.2 FINANCE ADDITIONALITY .............................................. 191
    7.2.1 Calculation of Finance Additionality ......................... 192
    7.2.2 Finance Additionality as a Measure of Effectiveness ........ 196
7.3 ECONOMIC ADDITIONALITY ........................................... 200
    7.3.1 Assessment of Economic Additionality ....................... 201
7.4 NET COST ........................................................................... 212
7.5 INTERVIEWS WITH KEY INFORMANTS ................................ 217
    7.5.1 Interview with Chief Executive Officer (CEO) of CGC ........ 217
    7.5.2 Interviews with Financial Institutions ......................... 221
7.6 SUMMARY ......................................................................... 224

Chapter 8

CONCLUSIONS

8.1 INTRODUCTION .............................................................. 227
8.2 CONCLUSIONS AND RECOMMENDATIONS ......................... 229
    8.2.1 The Utilisation of the NPGS ........................................... 230
    8.2.2 The Effectiveness of the NPGS ......................................... 238
8.3 RECOMMENDATIONS ....................................................... 241
8.4 DIRECTIONS FOR FUTURE RESEARCH ............................. 246

REFERENCES ............................................................................. 248

Appendices

Appendix 2 Funding Schemes Administered by BNM
Appendix 3 Features of the Flexi Guarantee Scheme
Appendix 5.1 Questionnaire Survey
Appendix 5.2 Questionnaire Survey – Translation (Bahasa Malaysia)
Appendix 5.3 Questionnaire Survey – Translation (Mandarin)
Appendix 5.4 Cover Letter to Respondents
Appendix 5.5 Questionnaire Survey – Population and Collected Sample
Appendix 5.6 Check List: Interview with Borrowers
Appendix 5.7 Check List: Interview with Lenders
Appendix 5.8 Case Studies: Issues to be Discussed
Appendix 5.9 Case Studies: Letter of Agreement to Participate
Appendix 7.1 Full Information on Case Study Firms
Appendix 7.2 Aggregate Figure on Finance Additionality for Questionnaire
    Survey
Appendix 7.3 Major Projects Undertaken

vii
List of Tables

Table 2.1: Loans Outstanding by Commercial Banks and Financial Institutions By Sector (RM Million) ............................................................................. 21
Table 2.2: Summary of Charges on Financing for SMEs .................................................. 34
Table 2.3: Finance - Type of Problem by Institution .................................................. 49
Table 2.4: Financial Constraint by Size ................................................................... 49
Table 2.5: Type of Incentives ...................................................................................... 50
Table 3.1: CGSs in Selected Developing Countries (Start Date of Operations) .......... 58
Table 3.2: Characteristics of Selected Credit Guarantee Schemes ............................... 64
Table 3.3: Costs of Operating Selected CGSs (1994) ............................................... 67
Table 3.4: Funding of Current Schemes ...................................................................... 70
Table 3.5: MGSs in the European Union (EU) ........................................................... 70
Table 3.6: Strengths and Weaknesses of the Intermediary Model .............................. 79
Table 3.7: The Number and Value (in RM millions) of CGC Approved Loans .......... 83
Table 3.8: Previous and Revised Features of NPGS (Eligible for all Borrowing Approved by Financial Institutions after January 1998) .......... 86
Table 3.9: CGC Reviewed by Levitsky and Prasad .................................................... 89
Table 4.1: Bad Debt Claims Processed and Paid ...................................................... 103
Table 4.2: Lending Guideline for NPGS .................................................................... 105
Table 4.3: Previous Approaches to Defining a Small Firm in Malaysia ..................... 111
Table 4.4: The NPGS Finance Additionality (all figures: RM000) ......................... 115
Table 5.1: A Summary of Previous Methodology for Assessment of Government-Backed Loan Guarantee Schemes ............................................................ 124
Table 5.2: Number of Firms in the Population and Survey sample ......................... 132
Table 5.3: Survey Sample and Sample Collected .................................................... 140
Table 5.4: Non-response Bias between Early and Late Respondents ..................... 143
Table 6.1: Legal Status ............................................................................................ 156
Table 6.2: Business Activity .................................................................................... 157
Table 6.3: Employment Size .................................................................................. 157
Table 6.4: Age of Firms ......................................................................................... 158
Table 6.5(a): Use of External Advisers for Fund Raising ........................................ 158
Table 6.5(b): Sources of Financial Advice .............................................................. 159
Table 6.6: Business Plan ....................................................................................... 159
Table 6.36: ANOVA Summary Table of NPGS Loans across Ethnic Groups .......... 179
Table 6.37: ANOVA Summary Table of Age of OM ........................................ 179
Table 6.38: Post Hoc Multiple Comparisons of NPGS Loans across Different Age
Groups of OMs ............................................................................................ 180
Table 6.39: ANOVA for Comparisons of Means for Technical Training of OM .... 180
Table 6.40: Correlation between Amount of EMT and NPGS Loans ................ 181
Table 6.41: ANOVA Summary Table of Amount of EMT ................................ 181
Table 6.42: Post Hoc Multiple Comparisons of NPGS Loans Across EMT ........ 182
Table 6.43: Correlation between Level of Education and NPGS Loans ............ 182
Table 6.44: ANOVA Summary Table of Higher Levels of Education ............... 183
Table 6.45: Post Hoc Multiple Comparisons of NPGS Loans Across Higher Levels of Education ................................................................. 183
Table 6.46: Correlation between Previous Business Experience and NPGS Loans 184
Table 6.47: ANOVA Summary Table of Previous Business Experience ........... 184
Table 6.48: Post Hoc Multiple Comparisons of NPGS Loan Across Business Experience ........................................................................................... 185
Table 6.49: Tests of Hypotheses....................................................................... 185
Table 6.50: KMO and Bartlett Test results for the Utilisation of NPGS Loans ...... 187
Table 6.51: Component with Eigenvalue Greater than One ................................ 187
Table 6.52: Loadings on the Final Four Components using Varimax Rotation .... 188
Table 7.1: The NPGS: Finance Additionality (all figures: RM thousands) ........ 194
Table 7.2: Type of Security/Guarantees Required for NPGS Borrowing
(Case Studies)............................................................................................. 197
Table 7.3(a): Sort of Security/Guarantees Required for NPGS Borrowing
(Questionnaire Survey).............................................................................. 197
Table 7.3(b): Type of Security/Guarantees Required for NPGS Borrowing
(Questionnaire Survey).............................................................................. 198
Table 7.4: Ability of Firms to Raise Finance in Absence of NPGS .................... 198
Table 7.5: Use of NPGS Loans .................................................................... 201
Table 7.6: Types and Uses of NPGS-Backed Facilities ................................... 202
Table 7.7: Substantial Economic Additionality: Selected Firms ....................... 203
Table 7.8: Employment Additionality: Total for Case Studies ......................... 204
Table 7.9: Employment Additionality: Total for Questionnaire Survey ............ 205
Table 7.10: Characteristics of Firms ............................................................. 210
Table 7.11: Claims Processed by CGC ......................................................... 213
Table 7.12: Claims Paid by CGC ................................................................. 215
Table 7.13: Lending Guideline for NPGS ...................................................... 216
Table 7.14: BNM Quota for Case Study Firms .............................................. 217
Table 8.1: Summary of Empirical Results: Utilisation of the NPGS
(\textit{Test of Hypotheses}) ........................................................................... 231
List of Figures

Figure 1.1: The Research Process ................................................................. 16
Figure 3.1: The Risk-Transaction Cost Frontier of Banks ......................... 59
Figure 3.2: Individual Model ..................................................................... 73
Figure 3.3: Portfolio Model ...................................................................... 75
Figure 3.4: Intermediary Model ................................................................. 78
Figure 4.1: The Utilisation of the NPGS: Schematic Diagram of the Theoretical Framework ......................................................... 98
Figure 4.2: The Effectiveness of the NPGS: Schematic Diagram of Framework for Analysis ................................................................. 99
Figure 5.1: Simplified Decision Tree for Tests of Association or Relationship Between Two Variables ................................................. 148
Figure 7.1: Assessment of Additionality (Cases with Borrower and Lender Data) 193
Figure 7.2: Employment Additionality: Total For Survey ......................... 204
Figure 7.3: NPGS-Backed Facilities: Impact on Turnover (%) .................... 206
Figure 7.4: NPGS-Backed Facilities: Impact on Net Profit Margin (%) ......... 208
Figure 7.5: NPGS-Backed Facilities: Awareness ........................................ 222
ABBREVIATIONS

ADB - Asian Development Bank
AID - Agency for International Development
AIM - Amanah Ikhtiar Malaysia
BLR - Base Lending Rates
BNM - Bank Negara Malaysia
BPMB - Bank Pembangunan Malaysia Berhad
BPM - Bank Pertanian Malaysia
CGC - Credit Guarantee Corporation
CIAST - Centre for Institute and Advanced Skills Training
DFIs - Development Finance Institutions
EDP - Entrepreneurial Development Programme
ERF - Enterprise Rehabilitation Fund
FMM - Federation of Malaysian Manufacturers
FORIM - Palm Oil Research Institute of Malaysia
IBM - Industrial Bank of Malaysia
ICA - Industrial Coordination Act
ILO - International Labour Organisation
IMP - Industrial Master Plan (1986-1995)
ITIs - Institute of Training Institutions
LGS - Loan Guarantee Scheme
MARA - Majlis Amanah Rakyat (Council of Trust for Indigenous People)
MED - Ministry of Entrepreneurial Development
MEDEC - Malaysian Entrepreneurial Development Centre
MEXPO - Malaysian Export Promotion Centre
MIDA - Malaysian Industrial Development Authority
MIM - Malaysian Institute of Management
MIDF - Malaysian Industrial Development Finance
MITI - Ministry of International Trade and Industry
MNC - Multinational Corporation
NEP - New Economic Policy
NDP - National Development Policy
NIF - New Investment Fund
NPC - National Productivity Centre
NPGS - New Principal Guarantee Scheme
OPP - Outline Perspective Plan
PLP - Preferred Lender Programme
SME - Small and Medium-Sized Enterprise
SMIDEC - Small and Medium Industries Corporation
UPM - Universiti Putra Malaysia
YTCs - Youth Training Centres
CHAPTER 1

INTRODUCTION

1.1 BACKGROUND TO THE STUDY

SMEs are considered to be an engine for growth in both developed and developing countries. They have the potential to play a crucial role in supporting balanced growth across the economy (Bannock and Albach, 1991). Furthermore, they play a major role in contributing to economic success (Schmitz, 1982; Fong, 1990a; Md. Salleh, 1990; Stanworth and Gray, 1991; Bank of England, 1997). A World Bank Report (1978) and ILO studies (1982) have shown that increasing employment, and thereby income, is the main reason for encouraging SME development in many countries. The development of SMEs can also assist in the transformation from developing to developed country; the experience of Japan and other newly industrialised countries in Asia seem to suggest that a modern SME sector is a necessary condition for sustained and accelerated development (Boocock, 1995).

In Malaysia, the role of SMEs will be increasingly important as the nation attempts to move towards becoming a fully-industrialised country by the year 2020 (Malaysia, 1991a). The importance of the SME sector has been recognised for a number of years in Malaysia (Chee, 1992); indeed, this sector began to enjoy positive discrimination relative to large companies by the late 1980s (Fong, 1990a). According to Dr. Mahathir Mohamad, Prime Minister of Malaysia (Business Times, 5 November 1996), "SMEs have been, and will continuously be the driving force of the Malaysian economy..." The Government recently established the Ministry of Entrepreneurial Development (MED) and the Small and Medium Industries Development Corporation (SMIDEC) in the hope that such institutions will further enhance the role of SMEs in generating employment opportunities, strengthening industrial linkages, securing home markets and earning valuable export revenue. SMEs now constitute 94 percent
of the total enterprises in Malaysia and employ 40 percent of the workforce. They also contribute 30 percent to the total value added within the economy and account for about 50 percent of industrial assets (Hashim, 1992).

Government involvement in SMEs began mainly after the racial riots in 1969, which led to the implementation of the New Economic Policy (Chee, 1986a). The NEP had the two objectives of eradicating poverty and restructuring society in an attempt to produce a more equitable distribution of welfare, in particular to achieve ‘inter-ethnic parity’ in education, employment and corporate wealth ownership. The first Outline Perspective Plan (OPP), 1971-1990, sought to achieve the aims of the NEP. A key target was that, by 1990, ownership of the corporate sector would be 70 percent Malaysian (including 30 percent Bumiputera) and 30 percent foreign. Over the same 20 year period, a series of Five Year National Plans were implemented. A critical objective of these Plans was to increase the participation of Bumiputeras in the Chinese-dominated economy.

The New Development Policy (NDP) replaced the NEP in 1991, but retained the principal goal of achieving national unity. The 30 percent target for Bumiputera corporate ownership was retained in the NDP, as the NEP had only achieved 20.6 percent ownership. Other ethnic groups held 43.4 percent, and foreigners held the remaining shares in corporates. There is no specific deadline to achieve the 30 percent ownership target for Bumiputeras (Islam and Chowdhury, 1997). The Second Outline Perspective Plan (OPP2), 1991-2000, which encompasses the NDP, provides a framework for achieving certain socio-economic targets within a ten year time frame. The Sixth Malaysia Plan (1991-1995) and the Seventh Malaysia Plan (1996-2000) set out the policies, strategies and programmes to operationalise OPP2 (Malaysia, 1992). The Sixth Malaysia Plan (6MP) highlighted the importance of the SME sector in supporting large industries in producing parts and components (Malaysia, 1991b). The Seventh Malaysia Plan (7MP) emphasises that the manufacturing sector should become more dynamic, with the focus on “high value-added, capital-intensive, high technology industries in order to achieve productive growth and competitiveness (Malaysia, 1996a, p.284).” SMEs are expected to contribute to the development of these knowledge-intensive industries.
Indeed, the Government has acknowledged that the development of SMEs has to be a foundation for Malaysia's future industrial thrust (Malaysia, 1991c). It is hoped that SMEs will become the backbone of Malaysia's long-term industrial programme. The sector's contribution to total output, value added and employment in the manufacturing sector had increased to 14.7 percent by 1995, 17.6 percent by 1995 and 17.5 percent by 1995 respectively. SMEs in the manufacturing sector are involved in food and beverages (20 percent of firms in this sector are SMEs), fabricated metal products (18 percent), wood and wood products (17 percent) and basic metals (4 percent). A key objective of the Government is to increase exports. However, exports account for only 20 percent of SME output, generating a mere 3 percent of the country's total export revenue (Business Times, 16 November 1996).

In order to achieve the objective of national unity set out in the NDP, Bank Negara Malaysia (the Central Bank) provides guidelines to private sector financial institutions to channel funds to priority borrowers, including the Bumiputera Community, prospective house owners and small businesses. The SME sector is considered to be one of the most important elements in achieving an equitable distribution of income. A range of support and advisory services (encompassing project identification, project development, financing assistance, technological development, extension services, marketing, etc.) have been introduced, but the sector remains "very fragmented and characterised by a lack of product differentiation and appropriate technology (BNM, 1992)."

SMEs need appropriate financing in order to achieve their growth potential. However, ready access to institutional financing at reasonable cost, and with minimum paperwork, is one of the major problems faced by SMEs (explored in depth in the literature survey below). Such funding is important at the initial and take-off stages of SME development (Lin See Yan, 1994). As a consequence, government-backed loan schemes have been introduced in many countries, to enable SMEs to have access to funding at reasonable cost. The government guarantee is a substitute for collateral provided by the company.

In Malaysia, the Credit Guarantee Corporation (CGC) has been charged by the
Government with assisting SMEs, principally through its New Principal Guarantee Scheme (NPGS). The CGC Report (1993) highlighted its role as follows:

"The CGC's role to bridge the gap between the needs of SMEs and the concerns of lenders by providing a commercially viable guarantee system that is adequately backed financially, thereby giving credence to its ability to fulfill the guarantee commitments."

The CGC is owned by the BNM and a consortium of commercial banks and finance companies. The BNM issues guidelines to the commercial banks and finance companies stating the amount of lending to be undertaken under the CGC facilities. Furthermore, a specified proportion of these loans must be extended to Bumiputera borrowers. Since 1972, four main facilities have been offered by the CGC:

1) The General Guarantee Scheme (1972 - 81)
2) The Special Loan Scheme (1981 - 88)
3) The Principal Guarantee Scheme (1989 - 94)
4) The New Principal Guarantee Scheme (NPGS) in 1994 to date.

The NPGS is the focus of this study. The NPGS guaranteed 15.784 new loans in 1997 (1996: 14,965) worth RM3.85 billion (1996: RM3.58 billion).

It is critical to understand the extent to which the NPGS is appropriate to the financing needs of Malaysian SMEs. This study fills a gap in current knowledge by focusing on the factors that determine the utilisation of the NPGS, its effectiveness in generating finance and economic additionality, and the cost of the Scheme to the Malaysian Treasury.

1.2 OBJECTIVES OF THE STUDY

The overall aim of this study is to assess the extent to which the CGC's main financing instrument, the NPGS, meets the financing needs of Malaysian SMEs.
The first order objectives are to:

i. Identify the factors that determine the utilization of the NPGS, focusing on a number of demand and supply factors, as well as the characteristics of firms and entrepreneurs/OMs (hereafter referred to ‘OMs’).

The second order objectives relate to the effectiveness of the NPGS, specifically to:

i. Calculate the level of finance additionality presently being achieved

ii. Estimate the level of economic additionality arising from the Scheme

iii. Identify the net cost of the NPGS to the Malaysian Treasury.

1.3 RESEARCH QUESTIONS

Kanbur et al. (1995) estimated the utilisation of the ‘Old’ PGS (OPGS) offered by the CGC. Their study incorporated demand and supply factors, including the cost of the OPGS loans compared to conventional bank loans, the availability of conventional bank credit, the default rate on OPGS loans and the level of claims paid to the lenders. My research addresses many of these issues for the NPGS. For example, it seeks to assess whether there is a negative relationship between the cost and the demand for NPGS loans. Likewise, my research examines the relationship between the guidelines (quotas) imposed by BNM and the utilisation of the NPGS. Recent experience seems to suggest that financial institutions are under less pressure to approve CGC loans simply to meet their quotas. The NPGS has been extended to finance companies, to take account of the fact that SMEs are increasingly turning to non-bank sources of external finance. My research will explore the relationship between the availability of CGC support through finance companies and the utilisation of the NPGS. Finally, the CGC claims that the procedures to be followed in the event of the borrower’s default have been clearly specified for the NPGS. My research evaluates the relationship between the number of bad debt claims processed by the lenders, the number of
claims paid by CGC and the utilisation of the NPGS.

Raising finance is a complex and dynamic process which may be affected by a number of factors, both economic and social (Buttner and Rosen, 1988; Moore et al., 1992). My research examines the relationship between the characteristics of firms and the utilisation of the NPGS, issues covered in more detail in Chapter 4.

Against the background set out in Section 1.1, and in relation to the objectives formulated in Section 1.2, the study attempts to answer the following questions:

**Demand factors**

i. Is there a negative relationship between the cost and the utilisation of the NPGS?

ii. Is there a negative relationship between the availability of security or collateral and the utilisation of the NPGS?

**Supply factors**

i. Is there a positive relationship between the amount of bad debt claims processed by CGC and the utilisation of the NPGS?

ii. Is there a positive relationship between the amount of claims paid in relation to claims processed and the utilisation of the NPGS?

iii. Is there a positive relationship between the guidelines (quotas) imposed by BNM and the utilisation of the NPGS?
iv. Is there a positive relationship between the availability of CGC support through finance companies and the utilisation of the NPGS?

**Characteristics of the firm**

i. Is there a positive relationship between private limited company status and the utilisation of the NPGS?

ii. Is there a positive relationship between manufacturing firms and the utilisation of the NPGS?

iii. Is there a positive relationship between the size of firm and the utilisation of the NPGS?

iv. Is there a positive relationship between the age of firm and the utilisation of the NPGS?

v. Is there a positive relationship between the use of external advisers for fund raising and the utilisation of the NPGS?

vi. Is there a positive relationship between the existence of a written business plan and the utilisation of the NPGS?

**Characteristics of the OM**

i. Is there a positive relationship between male OMs and the utilisation of the NPGS?

ii. Is there a positive relationship between Bumiputera OMs and the utilisation of the NPGS?
iii. Is there a positive relationship between the older OMs and the utilisation of the NPGS?

iv. Is there a positive relationship between the amount of technical training undertaken by OMs and the utilisation of the NPGS?

v. Is there a positive relationship between the amount of entrepreneur management training (EMT) undertaken by OMs and the utilisation of the NPGS?

vi. Is there a positive relationship between the level of formal education of OMs and the utilisation of the NPGS?

vii. Is there a positive relationship between the relevant business experience of OMs and the utilisation of the NPGS?

Finance Additionality

According to NERA (1990):

Additionality is used to capture the idea that an intervention, in this case a guaranteed loan scheme, leads to an event which in full or in part would not otherwise have occurred. The extent of additionality is thus extremely important in judging the effectiveness of this policy instrument. If additionality is relatively low, then policy intervention is largely subsidising scheme beneficiaries to undertake activities that would have occurred in the absence of intervention.

My research estimated the amount of finance additionality at the level of the SME. The key question is whether the NPGS represented a source of finance which would not otherwise have been available to SMEs or which would have been available only at a later date. A number of alternative sources of funds are potentially available to SMEs in Malaysia. My empirical work demonstrates that some SMEs, through the operation of the NPGS, have gained access to loans from commercial banks or finance companies, which they would not have obtained without the operation of the Scheme. It is not enough, however, simply to achieve finance additionality. An effective
scheme is where finance additionality is high without excessive incidence of default (Levitsky, 1993). The interlinked elements of finance additionality are explored in more detail in Chapter 4.

**Economic Additionality**

Economic additionality refers to the additional employment, turnover and profits generated by the NPGS. The higher the additional employment, turnover and profits, the greater the effectiveness of any guarantee scheme. Economic additionality should strictly be calculated with reference only to those firms which receive 'additional' finance. However, because of problems in establishing the precise level of finance additionality for the NPGS, this pre-condition has been ignored, following the precedent established by Boocock and Mohd Shariff (1996).

My research focused on the displacement effects, i.e., whether additional economic activity in the assisted firms translated into a corresponding increase in the level of activity in the SME sector or the economy as a whole. Economic additionally was found to be low where general business and agriculture sector firms were involved. This finding confirmed that additional finance does not always lead to an increase in employment, turnover and profits (NERA, 1990). By contrast, manufacturing firms had greater economic impact and created more jobs. In particular, firms that exported their products had low displacement effects (Pieda, 1992; Boocock and Mohd Shariff, 1996).

My research also examined the ability of NPGS-recipients to create a more dynamic and innovative society. The ‘dynamism’ was estimated from the attitude of NPGS-assisted firms towards investment and innovation. Any conclusions on this point can only be tentative.

These different components of economic additionality are explored more fully in Chapter 7.
Net Cost of NPGS

Levistsky (1997a) stated that:

All guarantee schemes contain some element of subsidy: either in the contribution (public, private or external donor) to setting up the guarantee fund, or in some cases in the form of a rent to cover some of the costs of administration of the programme. The subsidy may also be in the form of cheaper donor funds available for credit lines to SMEs (on which guarantees are offered).

The net cost of any guarantee scheme stems from the costs associated with administering the scheme plus settling claims arising from bad debts, offset by the premiums charged to borrowers for the guarantees and security realisations. The difference between income and expenditure for any individual scheme will principally depend upon: the default rate of assisted firms: the premium charged; the percentage of cover offered by the guarantee; and, the contribution sought from private financial institutions (Boocock and Mohd Shariff, 1996).

In the United Kingdom, the net cost of operating the Loan Guarantee Scheme (LGS) has been estimated with some degree of certainty (NERA, 1990, p.41; Pieda, 1992, p.44). LGS lending was found to be marginally unprofitable for the banks. The direct cost of the LGS to the public purse was substantial - the Scheme would not produce a surplus unless the default rate was drastically reduced or the premium vastly increased. However, the positive impact of the LGS in generating economic additionality had to be taken into account. Revenue flowbacks from, for example, corporation tax on profits earned by assisted firms and savings on unemployment benefit in preserved jobs offset the direct costs. When such savings were taken into account, the LGS produced a surplus for the UK Treasury (NERA, 1990, Pieda, 1992).

Hatekayama (1996) estimated the cost to public funds of operating the credit guarantee schemes in a number of East Asian countries, including Malaysia. Most of these costs were in the form of central or local financial support, or as additional paid-in capital to the guarantee fund to cover potential erosion and to bolster funds, so that investment income could rise to help cover operating expenses.
The NPGS was launched in February 1994 and it was hoped that premium income would rise to a sum sufficient to meet staffing and administration costs, leaving the settlement of claims to be met by the CGC's principal source of income, interest earned on its investment funds. As a separate entity, the CGC has to meet the cost of running its offices, over RM2 million per annum. Income from guarantee premiums declined from over RM4.5 million per annum in the late 1980s to approximately RM1.7 million per annum in the early 1990s (Boocock and Mohd Shariff, 1994). The cost to public funds was estimated at US$0.2 million, for the year 1994 (Hatekayama, 1996). However, that figure is questionable - refer to Chapter 3, S3.3.4.

The net cost of operating the CGC has not been disclosed or established since 1994. The calculations would not be straightforward even if full information was disclosed. The CGC derives funding from a number of sources, a range of facilities (each with different terms and conditions) has been offered, there has been no consistent relationship between Non Performing Loans (NPLs) and subsequent payments to financial institutions, and the distribution of the proceeds of collateral between the CGC and the lenders is complex.

Despite the difficulties involved, I investigated the net cost of NPGS by looking at the income from guarantee fees, interest earned on investments, the bad debt claims processed and the claims paid by the CGC. These figures were derived from the annual reports of the CGC, as well as interviews conducted with key informants. My findings are set out in Chapter 7.

1.4 RATIONALE FOR THE STUDY

As Sections 1.1-1.3 reveal, the rationale for undertaking this study stems from a number of interwoven factors. Firstly, SMEs are perceived to play a crucial role in the development of any economy (Bannock and Binks, 1989; Chee, 1992). Governments in both developed and developing countries have recognised that SMEs have difficulty in obtaining finance from financial institutions, owing to the high risk involved and the cost of administering SME loans (Levitsky, 1986). Financial
institutions, therefore, require collateral or other guarantees before lending to SMEs. but SMEs generally lack such collateral. For this reason, credit guarantee funds and mutual guarantee systems have been set up to provide guarantees to cover some or all of the losses incurred by financial institutions in the event of default by SMEs (Levitsky and Prasad, 1989; Levitsky, 1993; Balkenhol, 1990; Siebel, 1995).

Secondly, the mere existence of a guarantee scheme is not sufficient. This study investigates the utilisation of the NPGS. The Scheme’s objective is to achieve a high level of uptake of loans by SMEs, but utilisation depends upon a number of demand and supply factors, as well as the characteristics of firms and OMs. The methodology used establishes the relationships between the demand and supply factors, the characteristics of firms and OMs, and the utilisation of the NPGS.

Thirdly, the research will investigate the effectiveness of the NPGS in terms of economic additionality, finance additionality and the net cost of the Scheme to the Malaysian Treasury.

The research should prove extremely useful to CGC and the BNM. CGC has established a unit to offer training, advisory and consultancy services for SMEs. My research should assist this unit to target support services to firms and/or OMs in more effective ways. Thus the cost of the NPGS should be reduced. From a more general public policy perspective, BNM will be able to implement its lending policy to priority sectors in a more effective manner, if there is evidence of substantial economic and finance additionality in certain sectors.

1.5 POSSIBLE LIMITATIONS OF THE STUDY

Sectoral Bias

The loans guaranteed by the CGC are dominated by the general business sector, which accounted for 35,696 loans valued at RM7.7 billion, or 78.1 percent of the total value of loans approved and guaranteed in 1997. The major business activities financed
include the wholesale and retail trades, small-scale construction, transport and repairs, poultry farming and spawning, and the breeding and culturing of aquatic products (CGC, 1993). The manufacturing sector accounted for 5.927 loans valued at RM2.0 billion, or 20.6 percent of the total value of loans approved and guaranteed (CGC, 1998). However, the manufacturing sector often provides more significant benefits to the economy than general business. A sample drawn randomly from the underlying population of CGC borrowers would tend to favour general business firms, a sector in which displacement effects will be frequent and economic additionality will be lower. This outcome would have prevented the researcher from exploring the economic additionality of the manufacturing sector. To reduce the sectoral bias, the number of manufacturing companies in the sample must be increased to counter the composition of the population.

**Regional Bias**

My sample consists of SMEs based in the Federal Territory of Kuala Lumpur, Selangor and Perak and Johor in the west coast of Peninsular Malaysia. These States include 64.4 percent of the total value of loans approved and guaranteed (CGC, 1998). The States from which the sample is drawn are dominated by certain races, in terms of number of loans and amount borrowed, and type of sector and loan size, which may not necessarily be representative of the population. Barkham et al. (1996) found that a regional study may suffer from bias, if differences in the characteristics of firms and OMs exist between regions. However, evidence from previous studies has refuted regional and locational factors as being important in the study of SMEs (for example, Mahmud, 1981; Hakim, 1989; Storey et al., 1989; Keasey & Watson, 1994). Furthermore, the focus on certain States, as opposed to a national sample for Malaysia, is justified on the basis of convenience (proximity to the researcher), and time and cost constraints.
Introduction

Response-rate Bias

This study uses three empirical research strategies: a mail questionnaire survey, in-depth case studies, and interviews with key informants.

The biggest administrative drawback of mail questionnaires is that the researcher has to risk the questionnaire being completed by those assigned by senior management but not involved in decision making. Therefore, the researcher has to: "accept the completed questionnaires on faith (Wahab, 1996)."

In-depth interviews are critical for the development of the case studies. One of the preconditions for a successful interview is the willingness of the interviewee to accept the presence of the researcher in the organisation and to relay the relevant information (Bell 1993, pp.6-13). Boocock and Mohd Shariff (1994), in their study of the old PGS, experienced difficulties in gaining the participation of small firms. To conduct interviews with customers and their bankers, the researcher has to follow detailed rules laid down in the Banking and Financial Institution Act (BAFIA) 1989. More generally, in conducting interviews in a multi-racial and multi-lingual society like Malaysia, it is difficult to get full cooperation from certain OMs (Boocock and Mohd Shariff, 1995). There is particular sensitivity over questions concerned with how the business is funded. Even where access to borrowers and their bankers is achieved, the generalisibility of data is questionable.

Interviews with key informants from CGC and financial institutions covered a number of sensitive areas, such as non-performing loans (NPLs), and claims processed and paid. It proved difficult to get detailed information on NPLs from the CGC because it is such a controversial issue. Furthermore, some officials from financial institutions were not willing to divulge borrower information, even though they had been given authorisation by their borrowers under the Banking and Financial Institutions Act, 1989.

However, the researcher has reasonable confidence in the accuracy of the data collected by this multi-method approach. Firstly, the same conclusion derived from
various methods will have greater validity and reliability than a single methodological approach to a problem (Gill and Johnson, 1991, p.150). Secondly, different methodological strengths and weaknesses will be cancelled out to produce more convincing findings (Smith, 1975). Thirdly, the various methods taken together normally produce convergent findings (Jick, 1979, p.607).

The issue of data collection will be discussed in more detail in Chapter 5.

**Economic Bias**

The questionnaire survey was conducted over the period March to May, 1998, a time when Malaysia was experiencing a deep economic recession. The slump was caused by adverse developments in the regional financial markets, following speculative attacks on the currencies of a number of East Asian economies. Markets were hit by panic reactions and foreign investor confidence evaporated. Malaysia was not spared from the contagious effect of these developments, despite its relatively strong economic fundamentals. The financial system was adversely affected. Banking institutions became preoccupied with managing the deterioration in asset quality and capital, and curtailed their lending operations drastically. Total loans outstanding extended by the banking system increased by only 1.3 percent in 1998 (as opposed to 26.7 percent in 1997), with most of the slowdown in credit growth occurring during the second half of the year (BNM, 1998).

The CGC experienced a sharp decrease in applications for NPGS loans. In 1998, 2,711 loans, amounting to RM515.9 million were guaranteed by CGC. This represented a decrease of 82.8 percent in terms of the number and 86.6 percent in terms of the amount of loans guaranteed over the previous year.

The perceptions of borrowers, lenders and policy makers towards the economy as a whole, and CGC in particular, were undoubtedly influenced by the economic recession. This could obviously affect attitudes towards the utilisation and effectiveness of NPGS loans. To minimise potential bias from this source, the researcher asked respondents to focus on the position before the onset of the
recession.

1.6 ORGANISATION OF THE THESIS

The thesis is divided into eight chapters and organised according to the research process employed in this study (Figure 1.1).

Figure 1.1: The Research Process

The objectives, research questions and rationale for the study are discussed in Chapter One. The chapter also stresses the importance of SMEs in the industrialisation of Malaysia. Chapters Two and Three present a literature review on SME financing in Malaysia and the United Kingdom, and discuss the operation of the credit guarantee schemes in developed and developing countries.

Chapter Four develops a theoretical framework in which the variables are identified and defined, and the relationships among the variables are postulated. A number of research hypotheses are generated to test these relationships. For the purpose of testing
the hypotheses, Chapter Five discusses the research design and methodological approach, and explains the statistical techniques used in the analysis. The findings derived from the survey and case studies are presented and analysed in Chapters Six and Seven.

Finally, the conclusions of the study are presented in Chapter Eight, together with a number of public policy recommendations and some suggestions for future research.

Notes

1. The term Bumiputera refers to 'son of soil'. Although usually used in reference to the Malays, the term also encompasses other indigenous races such as the Orang Asli, Kadazans and Ibons.

2. The term entrepreneur or owner-manager is used synonymously for ease of reference in the thesis. The researcher appreciates that the terms refer to individuals with different characteristics, but these differences are not critical in this thesis.
CHAPTER 2

REVIEW OF THE LITERATURE I:
SME FINANCING IN MALAYSIA AND THE UNITED KINGDOM

2.1 INTRODUCTION

This chapter is divided into seven sections. The next section (2.2) reviews the importance of SMEs across the globe, while Section 2.3 examines the financing of SMEs in Malaysia. Sections 2.4 and 2.5 discuss the theoretical literature underpinning the financing of SMEs and the financing difficulties faced by SMEs respectively. Section 2.6 examines Government policy towards SME financing in Malaysia. Lastly, Section 2.7 summarises outstanding issues and questions.

2.2 IMPORTANCE OF SMEs

SMEs constitute the vast majority of businesses in most countries. They play an important socio-economic role in developed and developing countries (Othman, 1984; Ganguly 1985; Burns & Dewhurst, 1986; Batchelor, 1988a; ACOST, 1990; University of Cambridge, 1992; Keasey & Watson, 1993a). SMEs are not only recognised as a seed-bed for entrepreneurial talent, but they also act as generators for employment (Birch, 1979; Gallagher & Stewart, 1984a, 1984b, 1986; Storey and Johnson, 1986; Dyson, 1990).

The importance of the SME sector is becoming increasingly significant in Malaysia. As the pace of industrialisation increases, it is expected that SMEs will complement the activities of Large Scale Enterprises (LSEs) through integration into the mainstream of industrial development. SMEs represent the largest category of establishments in the manufacturing sector, accounting for about 84 per cent of firms
in that sector (Business Times, 16 November 1996). They play a key role in supplying components and supporting services to multinational companies (MNCs). The continued presence of MNCs in Malaysia will be facilitated by a vibrant SME sector. The successful development of SMEs is also crucial in creating an indigenous industrial structure that is efficient and resilient.

Another important area for strengthening the competitive advantage of SME manufacturing establishments in Malaysia is through the development and enhancement of indigenous technology. However, according to a survey conducted by MITI in 1995-1996, progress in this sphere has been limited because foreign partners transfer only low and medium grade technology to Malaysia. For example, the food and the non-metallic enterprises rely upon low grade technology in their production processes, while the fabricated metal and chemical products sectors have implemented high technology techniques. The inability of most SMEs to acquire advanced technologies stems from a number of factors, including a lack of financial resources, a lack of information on the most appropriate technologies, and the uncertainty and risk involved in buying imported technologies (Mohamed, 1996).

Most governments acknowledge the importance of SMEs and are aware that smaller enterprises face problems not experienced by their larger counterparts. As a result, relevant support structures in the form of government agencies or small business development centres have been set up to promote the development of SMEs in many countries (Gibb and Manu, 1992). Malaysia is no exception, especially in the provision of financial assistance. Government support will be discussed in more detail in Section 2.6, while the next section concentrates on the financing of SMEs in Malaysia.

2.3 FINANCING OF SMEs IN MALAYSIA

In order for SMEs to contribute more effectively to the performance of the economy, the availability of funds to SMEs in the manufacturing sector will be critical. It was estimated that the total investment required by the manufacturing sector over the period 1996-2005 would amount to RM250 billion. RM110 billion over the first five
years and RM140 billion for the subsequent period (BNM, 1996). SMEs in the manufacturing sector rely on three main sources of finance, namely internally generated funds, equity issues and debt. Internally generated funds, include earnings and depreciation charges, while debt finance encompasses private debt securities and borrowing from foreign sources, as well as funding from the banking system and specialised development finance institutions. The major source of finance for SMEs in the manufacturing sector is still internally generated funds, accounting for about 48 percent, while the share of equity financing has increased from about 4 percent to 14 percent. The increase in the latter stems from recent developments in the capital markets. Debt financing makes up the remaining 38 percent (BNM, 1996).

Internally generated funds may rapidly be used up, especially when SMEs are growing. This exhaustion of funds can constrain a firm’s ability to respond to discrete changes in demand. In particular, young SMEs are likely to generate negative cash flows during the early years of operation and “are unlikely to generate sufficient (if any) retained profits to finance the significant increases in turnover and the capital base required for expansion (Harrison and Mason, 1986, p.536).” Unlike LSEs, which have recourse to the capital markets, SMEs have limited avenues for raising funds and tend to rely upon debt financing.

In terms of debt financing, SMEs in Malaysia depend on the banking system, for two thirds of their total debt finance (Boocock and Wahab, 1997). Petersen and Rajan (1992) suggested that SMEs tend to rely on banks for their external financing requirements because: “it is often their only source of credit.” Private debt securities (PDS) and non-bank financial institutions account for less than 5 percent of total debt finance. The PDS market is not well developed in Malaysia, compared with Korea where PDS account for about one-third of the debt finance utilised by SMEs (BNM, 1996).

The amount of lending by commercial banks and other financial institutions to SMEs during the period 1992-1995 ranged between RM10.60 billion and RM15.65 billion (Table 2.1). These figures can be considered very marginal as a proportion of the total outstanding credit facilities made available by the banking system. However, SMEs
also have access to funding from other sources, including publicly-backed development finance institutions (DFIs) and private leasing and factoring companies (Boocock and Mohd Shariff, 1996). It is estimated that outstanding credit facilities to SMEs from outside the core banking system were around RM9-10 billion in 1993 (Lin, 1994).

Table 2.1: Loans Outstanding by Commercial Banks and Financial Institutions By Sector (RM Million)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>668.57</td>
<td>607.23</td>
<td>597.71</td>
<td>687.19</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>62.19</td>
<td>69.40</td>
<td>61.83</td>
<td>79.29</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>1,850.24</td>
<td>1,856.39</td>
<td>2,184.73</td>
<td>2,828.05</td>
</tr>
<tr>
<td>Housing, real estate and</td>
<td>1,741.40</td>
<td>1,908.44</td>
<td>2,329.00</td>
<td>3,488.80</td>
</tr>
<tr>
<td>Construction</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wholesale, retail trade,</td>
<td>3,125.19</td>
<td>2,932.05</td>
<td>2,947.32</td>
<td>3,224.50</td>
</tr>
<tr>
<td>restaurants and hotel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transport and storage</td>
<td>1,119.47</td>
<td>1,006.27</td>
<td>927.48</td>
<td>1,083.64</td>
</tr>
<tr>
<td>Financing, insurance and business services</td>
<td>715.22</td>
<td>832.77</td>
<td>1,051.14</td>
<td>1,453.67</td>
</tr>
<tr>
<td>Other services</td>
<td>777.42</td>
<td>815.41</td>
<td>886.26</td>
<td>1,136.50</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>544.19</td>
<td>780.72</td>
<td>1,154.20</td>
<td>1,665.12</td>
</tr>
<tr>
<td><strong>Total loans</strong></td>
<td>155,482.20</td>
<td>173,494.20</td>
<td>206,106.60</td>
<td>264,303.40</td>
</tr>
<tr>
<td><strong>Total loans given to SMEs</strong></td>
<td>10,603.89</td>
<td>10,808.68</td>
<td>12,180.90</td>
<td>15,646.76</td>
</tr>
<tr>
<td><strong>Of which: Bumiputera SME</strong></td>
<td>3,171.84</td>
<td>3,417.84</td>
<td>3,545.03</td>
<td>5,180.35</td>
</tr>
</tbody>
</table>


Bumiputera-owned SMEs accounted for RM3.17 billion (30 percent) of loans outstanding at the end of 1992, and RM5.18 billion (33 percent) at the end of 1995. These modest figures illustrate why it is important for BNM to set guidelines (quotas) to financial institutions for Bumiputera-owned SMEs. The use of quotas in the context of the NPGS will be discussed in more detail in Section 2.6.

The reluctance of financial institutions to give loans to SMEs was confirmed by Abdul Hamid and Abdul Rashid (1996); SMEs are unprofitable owing to the higher administrative costs involved in appraisal and monitoring, a higher level of non-performing loans, and the returns being incompatible with the risks involved.

SMEs are a high risk for lenders, because of high mortality rates. Evidence of a high
mortality rate for SMEs in Malaysia, especially younger SMEs, is found in previous studies (Mohamed et al. 1992). The principal cause of failure was management weaknesses, especially in the area of financial management (Bador, 1985; Haron and Shanmugam, 1994). This issue will be discussed in more detail in Section 2.4.4.

However, lending to SMEs can be profitable if a good working relationship exists between financial institutions and SMEs (Turnbull and Gibbs, 1987; Watson, 1986). Studies in several nations show that sustained banking relationships ('relationship lending') are associated with the greater availability of capital, lower charges for credit lines, less frequent pledging of collateral and lower monitoring requirements (Binks & Ennew, 1996b; Blackwell & Winters, 1997).

In Germany, for example, SMEs benefit from long-term relationships with their main banks, with a constant exchange of information between the two parties. The absence of strong markets for venture capital in Germany means that SMEs rely almost exclusively upon banks for external finance. Not only do the banks represent the major financial intermediary supplying capital to SMEs, but they are also extensively represented on the supervisory boards of companies (Audretsch & Elston, 1999). Research by Harhoff and Körtig (1999) on 1,399 SMEs in Germany found that firms with more concentrated borrowing and long-lasting bank relationships fared better than other enterprises in terms of credit availability, as well as collateral requirements and interest rates.

In Japan too, SMEs continue to receive long-term credit and support from their banks. Banks can also hold shares in SMEs (BNM, 1996).

Compared to the situation to Germany and Japan, and many other countries, banking relationships with SMEs in Malaysia are not very close (BNM, 1996). The focus in Malaysia is on collateral-based lending and bankers lack the industrial experience to establish close links with their SME customers. The failure to develop a close relationship may also be explained by restrictions on the ability of banks to invest in the shares of SMEs. Investments in the shares of manufacturing companies cannot exceed 10 percent of the paid-up capital of the company or 5 percent of a bank's paid-
up capital and published reserves, whichever is lower; the aggregate value at cost of all such shares cannot exceed 25 percent of a bank’s paid-up capital and published reserves. Apart from these legal restrictions, SMEs in Malaysia are reluctant to give up equity (ADB, 1990), an issue which is discussed below.

The absence of a close relationship between banks and SMEs in Malaysia has contributed to problems associated with agency costs, principally asymmetric information (discussed in more detail in the next Section). In response to asymmetric information, a bank’s typical reaction is to call for security or collateral. An SME without collateral and an established track record will therefore generally have difficulties in obtaining bank finance. Studies conducted by several researchers in Malaysia have demonstrated that a lack of material security has placed SMEs under severe financial constraints (Chee, 1986b, Yoon, 1988).

Other issues which are also worthy of discussion with respect to agency costs are moral hazard and adverse selection, which I will be exploring in more detail in Sections 2.4.2 and 2.4.3. To counter moral hazard and adverse selection problems, lenders impose stringent lending conditions on loans granted and raise interest rates for all SMEs.

Apart from the problems associated with high risk and/or agency costs, banks in Malaysia and across the globe have been unwilling to finance high-technology (high-tech) firms. The conservative lending policies of the commercial banks do not dispose them to lend to new, small scale projects involving unproven, innovative products. The ADB (1990) study highlighted the fact that “commercial banks have difficulty appraising the likely level of risk and profitability of innovative proposals, partly because they lack staff with experience and professional expertise to assess the technological and commercial prospects of the proposal.” Venture capital could help remedy the situation facing high-tech SMEs.

Venture capital was traditionally associated with small high-risk investments in high technology ventures, although venture capital across the globe has tended to switch to larger, less risky ventures. The formal venture capital market is relatively undeveloped
in Malaysia, although Boocock and Wahab (1997) observed that informal venture capitalists (business angels) play an important role in providing risk capital to many SMEs in Malaysia. A lack of awareness of the role of venture capital (BNM, 1994 and 1995, Lin, 1992) has affected the demand for venture funds. There is also a significant amount of evidence that points to the reluctance of SMEs to 'open-up' their capital to outsiders and forfeit their independence and control (Hall, 1989; Binks & Vale, 1990; Binks et al., 1992b; Mason and Harrison, 1993; Tannous & Sarkar, 1993; Bank of England, 1996a). The ADB (1990) study supported this argument by stating that: "the Malaysian business community places too high a value on the retention of ownership and control and on short-term gain."

Another source of finance that is available to SMEs, notably technology-based firms, is the Over-The-Counter (OTC) market. The OTC market in Malaysia is the Malaysian Exchange of Securities Dealing and Automated Quotation (MESDAQ). It was launched on 30 April, 1999, after a delay of more than 2 years. MESDAQ aims to attract high growth SMEs, especially those involved in technology-based activities. The minimum paid-up capital required by MESDAQ is RM2 million. Other listing requirements include: 70 per cent of funds raised must be used in Malaysia; a company must have at least 50 per cent of its assets and operations in Malaysia; and a company must have a sponsor for the first five years (The Star, 26 April 1999). The launching of MESDAQ gives venture funds an exit route for their investments. MESDAQ could thus open up avenues for venture capital to play a more active role in financing the start-up and seed capital stages of new and technology-based firms (BNM, 1996). However, given the limited progress in attracting companies to the new market, it seems unlikely that MESDAQ will boost the supply of venture capital in Malaysia.

In summary, therefore, the availability of funds for Malaysian SMEs in the manufacturing sector is derived from three main sources of finance, namely internally generated funds, equity issues and debt. SMEs face constraints in generating funds internally because of their inability to respond to discrete changes in demand. Thus, SMEs turn to external financiers, principally the banking system. In Malaysia a close relationship between banks and SMEs has not developed. In the face of high mortality
rates for SMEs, lenders typically raise interest rates for all SMEs (adverse selection) and call for collateral to counter the problems of asymmetric information and moral hazard. Banks in Malaysia rarely finance high-tech SMEs. Venture capital could play an important role in financing risky ventures. However, the venture capital market has not really taken off, and the stuttering start by MESDAQ is unlikely to boost the availability of venture capital.

These factors point to the need for a credit guarantee scheme in Malaysia. For the present, however, it is important to strengthen the theoretical input on why SMEs face difficulties in raising external finance. The next section reviews an essential element of a modern finance theory (agency theory) which underpins much of the debate on the financing of SMEs.

2.4 AGENCY THEORY

One of the basic thrusts of modern finance theory has been to direct scholarly attention: "to the way in which the capital market enables allocation of scarce financial resources between individuals and business enterprises over time (McMahon et al., 1993, p.69)." An important contribution of modern finance theory has been the development of agency theory, a concept which has been applied to the financing of SMEs.

In general, agency theory: "considers a business enterprise from the viewpoint of the various stakeholders it might have and explores how their financial interests are furthered and protected in their dealings with each other (McMahon et al., 1993, p.80)." Stakeholders include OMs, employees, customers, family members, creditors and the general public. An agency relationship was defined by Jensen & Meckling (1976, p.306) as: "a contract under which one or more persons, the principal(s) engage another person (the agent) to perform some service on their behalf, which involves delegating some decision making authority to the agent."

In the case of SME finance, the agent is typically an OM and the principal is the
supplier of external finance. The task of the lender is to ensure that its agent (the OM) acts in accordance with the contract, i.e., repaying the loan plus interest. The 'principle of self-interested behaviour' which arises in the agency relationship can be problematic because both parties (principals and agents) might pursue their own self interests (McMahon et al., 1993, p.81), even if their actions are detrimental to achieving common objectives (Hand et al., 1982). The lender has to protect its position whenever the OM has an incentive to take action which would result in a decline in the worth of the security or the firm (Jensen & Meckling, 1976).

Hand et al. (1982) stated that problems in agency relationships are likely to happen when the business is small and control is exercised by an OM with a major stake in the business. Any business risks represent personal risks for the OM. The OM will therefore try to minimise his personal risks, which might result in decisions which are detrimental to the finance provider. For example, Othman (1984, p.55) observed in the agency relationship between banks and SMEs in Malaysia that:

> It has been the experience of some banks to witness blatant misuse of funds. Loans approved to some small businessmen have been diverted to support various non-productive activities like the purchase of stocks and shares; placement made in fixed deposits; purchase of non-business related properties; and personal consumption

The crucial relationship between SMEs and their finance providers has been examined by a number of researchers. For example, Landström (1992) developed a framework to explain the interaction between private investors and OMs. Similarly, Deakins and Hussain (1992) explored the agency relationship between SMEs and their banks. These studies and others are now used to explore issues which stem from the principal/agent relationship and which provide insight into the 'funding gaps' controversies discussed in Section 2.5.

2.4.1 Asymmetric Information

Agency problems in the financing of SMEs often stem from asymmetric information (Barnea et al., 1981). The term refers to a situation in which the OM has more information on the financial condition and prospects for the business than the lender
In the case of SMEs, information is less readily available (Storey, 1994a) and they do not publish the same quantity or quality of information on their financial position or earnings prospects as larger enterprises (Ang, 1991). Furthermore, Ang pointed out that SMEs are under no obligation to produce verifiable information, since their securities are not traded publicly. SMEs also fear that any information disclosed might be used against them, a term described as 'information impactedness' (Kaplan and Atkinson, 1989). Faced with information asymmetry, lenders may deny credit to SMEs that are entirely creditworthy but unable to document it (Coleman, 1998).

The theoretical work of Stiglitz and others (Greenwald, Weiss and Stiglitz, 1984; Weiss and Stiglitz, 1981) offers insight into the possibility of credit rationing where information asymmetries are present. This rationing will be discussed in detail in Section 2.4.3.

Rather than rationing or a debt gap, de Meza and Webb (1987) associate asymmetric information with the existence of different (but unobservable) entrepreneurial abilities. The difficulty in identifying different abilities results in an oversupply of credit: "if banks are unable to discriminate effectively between good and bad projects, they are likely to make some investments in bad projects and so 'over-invest' in the market place (Storey, 1994a)."

The presence of information asymmetries will also contribute to higher costs of external finance (Myers & Majluf, 1984; Keasey & Watson, 1993b). In the agency relationship, lenders often demand high interest rates from SMEs, primarily to compensate for the possibilities of wealth expropriation (Pettit and Singer, 1985).

The extent of information asymmetry varies according to the type of SME involved (Read, 1998). Storey (1994a) focused on the information asymmetries faced by the OM of a new firm or start-up. Such OMs may have little idea of whether or not their business will succeed. On the other hand, their lenders may have had previous experience of similar businesses at that particular stage of development. Similarly, for
SMEs which operate in a local market, a local lender may often have superior knowledge of local business conditions (Read, 1998, p.35). In such cases, asymmetric information may work in favour of the SME and lead to more finance than anticipated being made available.

Ang (1992) acknowledged that young SMEs, especially in the area of high-technology, will experience greater information asymmetries than conventional firms. OMs in high-tech firms usually have a higher level of technical knowledge than their lenders, who are generalists. Vyakarnam and Jacobs (1991) refer to: "technology uncertainty, whereby the banks find it difficult to assess the potential profitability of technological propositions, as they are not in the position to understand the technology and cannot therefore have full understanding of a project's feasibility from a technical perspective." The OMs may also fail to communicate their knowledge of the firm to lenders (Mason and Harrison, 1991b). Furthermore, evidence has shown that lenders have a tendency to treat all high-tech SMEs in a homogeneous fashion, even though some bankers are being trained to overcome the problem of technological uncertainty (Deakins and Hussain, 1992).

In general, therefore, asymmetric information occurs where the OM has more information on the financial condition and prospects for the business than the lender. In most cases, the supply of credit is restricted or available only at a higher cost, especially to high tech firms.

2.4.2 Moral Hazard

The second issue arising in the agency relationship between SMEs and their finance providers is the existence of moral hazard. In these circumstances, an OM who has obtained a loan for a risky project has an incentive to take decisions which increase the risk of, and potential returns to, the project. If the firm has limited liability status, and finance is not secured on personal assets or collateral, the costs of default will fall on the firm and the lender, not the OM. The OM will benefit from upside gains but bear none of the down-side risks (Keasey and Watson, 1993a). Furthermore, for the relatively small amount of finance involved, it is generally not economic for the
lenders to monitor closely the internal operation of SME borrowers (United Kingdom, 1994a), hence the prospect of moral hazard may again lead to credit being denied.

2.4.3 Adverse Selection

The third consequence of the agency relationship is adverse selection, a situation in which the principal (lender) faces problems in making correct lending decisions. As discussed in Section 2.4.1 on asymmetric information, Storey (1994a) describes adverse selection as: “differences in the access to information between the bank and the OM, which lead to an unwillingness on the part of the bank to use interest rates to bring the market-place for funds into equilibrium. The bank faces problems in selecting risky projects because of imperfect information.” The banks prefer to set interest rates at a level where the demand for funds exceeds the supply, because they reduce the number of lending decisions required, and minimise the time spent on appraising and monitoring loans.

Deakins and Hussain (1992) provide two typologies encountered in the adverse selection problem: Type I errors (turning away future successes); and Type II errors (taking on future failures), or ‘lemons’ to use Akerlof’s terminology (Akerlof, 1970). The lenders make decisions based on their knowledge of the agents’ skills and competencies. This knowledge is frequently incomplete. Lenders may try to minimize their exposure by being risk averse towards SMEs; the probability therefore is that they will make Type I, rather than Type II errors. Type II errors will have adverse consequences for their careers, as the cost of bad debts are more obvious than the interest margin foregone (Philpott, 1994).

To eliminate the potential problem of adverse selection in new technology-based SMEs, it has been suggested (Deakins and Hussain, 1991; Deakins and Philpot, 1994) that lenders need longer training programmes for technology specialists, to enable them to understand the impact of technological uncertainty and asymmetric information within the risk assessment process.
2.4.4 Agency Costs and Collateral

Financial institutions are reluctant to lend because of the high mortality rate of SMEs (Scarborough & Zimmerer, 1984; Batchelor, 1989a; Smallbone, 1990). Storey et al. (1987, p.3) claim that: “the fundamental characteristic which distinguishes small firms from large is their relatively high probability of failure.” The increased risk and severity of problems (e.g. information asymmetries, moral hazard and adverse selection) associated with the financing of SMEs means that agency costs will be high (McMahon et al., 1993).

For example, the lenders incur monitoring costs in an attempt to overcome the problems associated with moral hazard. Such costs are typically setting up contracts which formally bind the borrower to: “agreed types of behaviour and provide sanctions should actual behaviour deviate from that specified in the contract (McMahon et al., 1993, p.82).” In the case of bank finance, the monitoring costs include the preparation of loan or overdraft contracts, whereby SMEs face penalties if they do not comply with the stated conditions, notably repayment within an agreed length of time. Sanctions might include charging higher interest rates, larger fees or withdrawal of the facility. On the other hand, the provision of incentives, in the form of favourable interest rates, waiving of fees or repayment holidays, encourages SMEs to behave in a manner which is consistent with the contract.

Lenders also have to guard against information asymmetries. The transaction costs of handling the financial data of SMEs are considerable if lenders are to judge the performance of SMEs accurately (McMahon et al., 1993). Furthermore Storey (1994a, p.207) stated that:

> Monitoring and assessment costs can be considerable if an accurate decision is to be made on the viability of the project. It is also assumed that the initial costs are invariant with the size of the loan which is sought, or are a decreasing proportion of the loan size. Furthermore, the financial institution has to pass on the costs of monitoring and assessment to its clients. This applies not only to those which are incurred in reaching a successful decision, but also where the institutions turn down proposals having already made viability assessments.

The lender’s response to the risks inherent in the agency relationship is typically to
require the OM to provide a personal guarantee or other security on loans or over drafts (Cosh and Hughes, 1994).

Berger and Udell (1990) advocated that all those having access to information should have a say in deciding whether to commit collateral or not. They refer to this as the 'sorting-by-private information' paradigm. The lenders use the collateral as a signal that the OM is committed to the success of the business (Chan and Kanatas, 1985; Besanko and Thakor, 1987). Lenders cannot adequately distinguish between borrowers, since the latter usually have more information than the former. Given this assumption of asymmetric information, the willingness of the OM to provide personal security or collateral sends a signal to the principal that the OM views the likelihood of success of the project as being high. On the other hand, theorists such as Morsman (1986) argue that the lenders have enough information to assess the relative risks of a range of projects, the 'sorting-by-observed-risk paradigm.' Therefore, lenders should seek collateral only from those borrowers they consider as having risky projects.

Therefore, according to Storey (1994a, p.210), "the role of collateral is threefold. Firstly, it limits the downside loss by providing an asset for the lender (bank) in the event of a project failure. Secondly, it provides an incentive to the OM to commit him or herself to the project. Thirdly, it provides a signal to the bank that the entrepreneur believes the project is likely to succeed - otherwise he or she would not commit their personal resources to it." Furthermore, the existence of personal security or collateral can be taken as a proxy for the quality of a financial proposition (Stiglitz and Weiss, 1981).

However, personal collateral is typically valued at less than its market price by lenders. Ang (1991) found that over reliance by lenders on personal security will lead to OMs choosing less risky projects with lower returns, in order to safeguard their homes.

New technology-based firms have particular problems with respect to collateral (Oakey, 1984a), especially where lenders face difficulties in valuing research and development output owing to its intangible nature. Such firms could face severe
liquidity problems if finance is denied.

2.5 DIFFICULTIES IN RAISING FINANCE

In the light of the theoretical background underpinning the debate on the financing of SMEs, it is now possible to examine the central issue of my research, the practical difficulties faced by SMEs in raising finance.

2.5.1. Equity Gap

When seeking external finance, SMEs fund their operations through equity or debt financing. There continues to be a 'gap' in both the equity and long-term debt markets for SMEs. A 'gap' in the provision of finance is defined by Storey (1991a, p.239) as:

An unwillingness on the part of suppliers of finance to supply it on the terms and conditions required by small businesses. Expressed in its most casual form, indications of a 'gap' include the difficulties of obtaining small sums of equity capital, or the difficulties which some businesses have in obtaining bank finance.

Evidence of high gearing is an indication of the existence of an 'equity gap' for SMEs. A study conducted by Davidson and Dutia (1991) on 86,000 firms in 343 industries, over a period of five years, found that SMEs tended to rely more heavily on debt capital than large enterprises. Their findings confirmed those of Gupta (1969), Walker and Petty (1978) and Van Auken and Carter (1989).

In the UK the existence of the 'equity gap' was first identified and reported by the Macmillan Committee (1931) and subsequently confirmed by the Bolton (1971) and Wilson Committee (1979). The Macmillan Committee reported that SMEs were unable to secure long-dated external finance for amounts of less than £200,000. The Committee's conclusions on the nature of the 'gap' are stated as follows:

It has been represented to us that great difficulty is experienced by the smaller and medium-sized businesses in raising the capital which they may from time to time require, even when the security offered is perfectly sound. To provide adequate machinery for raising long-dated capital in amounts not sufficiently large for public issue, i.e. amounts ranging from small sums up to £200,000 or more, always presents difficulties. The expense of a public issue is too great in proportion to the capital raised.
The setting up of the Loan Guarantee Scheme in the UK in June 1981 stemmed from a recommendation made by the Wilson Committee (Pieda, 1992). That Committee proposed that the 'equity gap' had narrowed, particularly at the top end of the range, but maintained that there was still a problem in raising finance for SMEs, especially for development funds (from £15,000 to £150,000) and start-up projects requiring up to £10,000. The Committee considered that the introduction of a credit guarantee scheme might be justified on two grounds:

The first would be if there were reason to believe that competition between the banks in this area was insufficiently effective to ensure that viable small businesses always had the necessary access to sufficient funds on reasonable terms. The second would be if it were felt that the public return from the activities of small firms was greater than the private benefit because, for example, of their importance to job creation. In the latter case, it would also follow that some public subsidy was justified.

The Committee did not come out strongly in favour of either of these two grounds, but considered that a limited subsidy element was justified. This policy followed the philosophy of the Bolton Committee in nurturing SME activity to secure wider social and economic benefits.

Even though the 'equity gap' had been narrowed by the formation of new equity providers including Charterhouse Industrial Development and the Industrial and Commercial Finance Corporation Limited (Bannock & Doran, 1987), the gap still appeared to exist at the end of the 1980s (Bannock and Partners, 1991). However, the University of Cambridge (SBRC, 1992) stated that the perception of widespread financial constraints on SMEs could not be supported by evidence of disadvantaged firms. The consensus of opinion was that the equity gap had narrowed in the wake of developments in private sector markets and the introduction of government initiatives to complement the activities of the private sector.

This broad view is supported by a recent review (Commission on Public Policy and British Business, 1997, p.135) which rejected some of the widely held views concerning the equity gap. A summary of its key judgements can be found in Table 2.2.
Table 2.2: Summary of Charges on Financing for SMEs

<table>
<thead>
<tr>
<th>Charges</th>
<th>Verdict/Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Investment capital is generally scarce for SMEs</td>
<td>False. Most SMEs find few difficulties obtaining finance.</td>
</tr>
<tr>
<td>2. Finance for start-ups is scarce.</td>
<td>Probably False. Especially in the 1980s when start-up finance was plentiful, although it is hard to measure the number of potential start-ups that are denied finance.</td>
</tr>
<tr>
<td>3. It is difficult for high-tech firms to obtain finance.</td>
<td>Partly true. Theoretical and empirical evidence of difficulties in the early stages, especially for venture capital.</td>
</tr>
<tr>
<td>4. Venture capitalists are reluctant to provide 'patient' capital for SMEs.</td>
<td>Partly true. But there is some evidence that SMEs are also reluctant to give up equity.</td>
</tr>
</tbody>
</table>

Source: Report of the Commission on Public Policy and British Business; 136

Some of the commonly held views have been called into question because of significant changes in financial markets in the UK over the last decade or so. The Cambridge study found that between 80 and 90 per cent of SME finance requirements were being met (SBRC, 1996). This assertion is supported by the Aston Business School (1991), which suggested that the extent of any equity gap is small. Furthermore, it would appear that start-up SMEs have not experienced particular problems in obtaining finance; the level of business start-ups in the UK rose rapidly over the 1980s, with the main four clearing banks being enthusiastic lenders to start-ups during the era of the Lawson boom (CPPBB, 1997). The Bank of England (1996a) also reported evidence of an increasing variety of finance available from banks, over the 1990s, with a substantial growth in term lending at the expense of overdrafts.

However, some of the claims for the existence of the equity gap appear to hold some validity, for example, that finance is inadequate for young high-tech SMEs and that venture capitalists are reluctant to invest in such companies. SMEs experience greater difficulty than LSEs in raising finance, particularly high-risk and technology-based firms (Barber et al., 1989; ACOST, 1990; Westhead & Storey, 1994; Moore, 1994; BNM, 1996). The Aston Business School (1991, p.13) found that SMEs with proposals for innovation were more likely to experience financial constraints.

The Radcliffe Committee (1959, p.328) identified the existence of a 'technological
gap' and emphasised that:

There are certain problems about the provision of finance for the commercial development by small businesses and private companies of new inventions and innovations of technique. One problem is that the amount of capital required to finance a development may be larger in relation to a small company's capital structure and apparent earning prospects than the financial institutions would ordinarily feel justified in putting up. The other problem is that of risks; the risks in the commercial exploitation of technical innovation are likely to be greater than those in expanding an existing line of production or extending into existing lines of business, and however promising the innovation, the risks are certainly more difficult to assess. This makes it more difficult for the company that wants to develop an invention to convince potential lenders that their money will be well invested.

Many high-tech SMEs face problems finding finance because the scientific and technological knowledge involved creates an extra degree of uncertainty for finance providers. This is supported by case-study evidence that young high-tech SMEs find it more difficult to obtain bank finance than larger or less innovative firms (Oakley, 1984; Advisory Council of Science and Technology, 1990; Roberts, 1991). However, Moore (1994) argues that high-tech SMEs, in general, do not experience any more difficulties in obtaining finance than other sectors. He concluded that businesses which are likely to experience difficulties in finance are those which are young, are in the manufacturing sector, have below average profitability and are smaller.

The venture capital market in the UK has expanded rapidly in the last fifteen years, but the CPPBB (1997) reported that the proportion of UK venture capital invested in young high-tech SMEs had dropped steeply, from 26.4 percent in 1985 to under 10 percent in 1992. This differs from the United States, where venture capital investment in young high-tech SMEs has been relatively high and steady at around 70 to 80 percent (Murray, 1999). Murray also commented on the state of the venture capital industry in the UK:

The Bank of England in its 1996 review of venture capital and its role in financing technology-based small firms showed that, while the growth in finance to UK industry was dramatic, this growth has not predominantly occurred at the critically important stages of seed capital, start-up or early stage investment. It is at this earliest and highly speculative stage that there is most likely to be failure in supply-side response....This situation, in the Bank's opinion, and reflecting ACOST's 1990 conclusion, allowed little confidence that the 'equity gap' problem had, or was likely to be solved by private venture capital firms. Thus, a financial constraint, often seriously faced by rapidly growing and high potential SMEs and first identified by Macmillan in 1931, seemed to be just as pertinent in the late 1990s.
The CPPBB (1997) recommended the use of mutual guarantee schemes (MGSs) to help close the equity gap. MGSs are used extensively in Europe and are specifically designed to reduce problems of information asymmetry.

Boocock and Wahab (1997) stated that: "the precise extent of any equity gap, irrespective of which country in considered, is always open to question." Evidence from the UK is inconclusive. However, the equity gap facing Malaysian SMEs might be more significant. The majority of SMEs in Malaysia depend on the banking system for their external financing requirements and bank/SME relationships tend to be somewhat distant. The reluctance of SMEs to dilute ownership and a lack of awareness of the role of venture capital has held back investment activity in that field (BNM 1994 and 1995). The discussion now turns to debt finance.

2.5.2 Debt Gap

According to Cressy (1999), "a debt gap exists when the demand for credit (typically business credit) exceeds supply and the price of credit does not adjust to equate the two. This may involve borrowers getting less than is justified on economic grounds (Type I rationing), and in some cases (Type II rationing) borrowers getting no money for viable projects."

At the start-up stage, SMEs tend to depend on the OM's savings, contributions from family and friends, and trade credit (Md. Salleh, 1990; Ang, 1992; Levy, 1993; Petersen & Rajan, 1994; Ang, Lin, & Tyler, 1995; Berger & Udell, 1995; Binks & Ennew, 1996a; Cole & Wolken, 1996). According to the 'pecking order hypothesis', SMEs prefer internal debt and equity to external debt, with external equity considered only as a last resort (Myers and Majluf, 1984; Cosh and Hughes, 1994). Most SMEs begin their operations without institutional help (Levitsky and Prasad, 1989, Balkenhol, 1990). However, when SMEs begin to grow and innovate, many studies (including: Macmillan Committee, 1931; Radcliffe Committee, 1959; Bolton Committee, 1971; University of Cambridge, 1992) have shown that institutional financing is needed.
The debt gap experienced by SMEs stems from a variety of factors. As stated above, most young SMEs have a high mortality rate; 33 percent cease trading within two years from incorporation and 60 percent within five years (Pickering, 1989). SMEs in the US experience a 70 percent failure rate over a five year period and most of these occur in the first year of operation (Amer and Bain, 1990). The failure rate in Malaysia is also high, especially among younger SMEs.

The processing, supervision and collection of loans to SMEs is often more expensive as a percentage of the amount raised compared to larger firms (Binks et al., 1986; Confederation of British Industry, 1993; United Kingdom, 1994a). Access to credit is restricted by financial institutions which impose stringent lending conditions on younger SMEs that have little or no track record (Binks, 1979a; Bannock, 1981; Oakey, 1984, Kee et al., 1986; University of Cambridge, 1992). A lack of material security is the most serious drawback for an SME seeking assistance from financial institutions (Binks et al., 1986; Yoon, 1988).

2.5.3 Information and Knowledge Gap

The Economic Advisory Group (1971) surveyed a sample of small firms which had made unsuccessful approaches to financial institutions in the UK. They suggested that the 'finance gap' was an 'information gap' plus an 'availability of funds gap' (Aston Business School, 1991). The Group observed that most firms failed to obtain finance because they were insufficiently informed or poorly advised about appropriate sources of finance. This information gap has provided the rationale for the activities of many enterprise agencies which have sought to provide firms with comprehensive information on funding sources (Aston Business School, 1991). The EAG Report supported the argument made by the Bolton Committee (1971, p.191):

Many small firms are prevented by a lack of information, by inexperience in presenting applications for finance and by a formidable barrier of prejudice against borrowing of all kinds, from making use of the full range of facilities available to them.

Bannock and Partners (1991) and Harvey (1992) both identified a lack of knowledge or imperfect information as the main reason why SMEs failed to approach appropriate
funding bodies. However, as Bates and Hally (1982, pp.2-3) and CBI (1982) pointed out, the root of the problem often lies with the OMs themselves. They tend to react late to information and they do not approach the appropriate person for advice until after a funding crisis occurs.

In Malaysia, the information gap is prevalent especially in the poor awareness and take up of various incentives offered by the Government, including the CGC's Schemes. Only 19 percent of SMEs are aware of the CGC-backed facilities (BNM, 1995), a finding which is supported by Boocock and Mohd Shariff (1996) - discussed in greater detail in S2.5.8.

2.5.4 Financial Skills Gap

As mentioned in Section 2.3, poor financial management frequently contributes to the risk involved in lending to SMEs. For example, many SMEs suffer from a lack of capital (Broom and Longenecker, 1975; Bates and Hally, 1982; Bador, 1985; Haron & Shanmugam, 1994). This factor is acknowledged to be one of the leading causes of business failure (Broom & Longenecker, 1975; Hubbard & Hailes, 1988; Mohamed et al., 1992; Barclays, 1993).

The financial skills gap also applies to the area of financial planning. Study conducted by Rahardjo & Ali (1986) found weak or non-existent financial planning to be prevalent among SMEs. In the UK, short-term debt in the form of overdrafts is the main source of finance for SMEs (Cressy, 1993a). Short-term funds of this nature may pose excessive financial risk to the firm, as the lender may withdraw the facility at any time. A survey in 1991 found that 49 percent of SMEs had never considered long-term finance, even though most of them clearly recognised its availability (Middleton et al., 1994). While financial planning is often an important key to SME survival (Stoner, 1983; Kee & Chang, 1985; Amer & Bain, 1990; Mohamed et al., 1992), the majority of SMEs in Great Britain manage their own daily financial affairs without any form of financial training (Barclays, 1993).
2.5.5 Summary on 'Gaps'

Funding gap controversies still exist in the financing of SMEs. The sources of alleged gaps stem from market deficiencies in supply and demand. The evidence on the equity gap appears to be inconclusive in the UK, but disadvantaged SMEs may be more prevalent in Malaysia especially in the high tech field. For example, the limited progress of MESDAQ suggests that SMEs will continue to struggle to find venture capital.

In the case of the debt gap, lenders cover the risks in their relationship with OMs by requiring OMs to provide material security. However, OMs have limited resources and are therefore placed under severe financial constraints. Furthermore, SMEs might be discouraged from applying for debt finance because of high interest rates or a dislike of interference from outsiders, even when this does not involve the loss of voting rights (Cressy, 1999). An information gap exists in Malaysia, especially in the poor awareness and take-up of various incentives given by the Government. A financial skills gap also seems to affect SMEs in Malaysia.

2.5.6 Characteristics of Firm and OM

The characteristics of the firm and the OM are very important factors, often neglected in research on the finance gap (Chee, 1986a; Kee et al., 1986; University of Cambridge, 1992; Holmes and Kent, 1991; Landström and Winborg, 1995). The characteristics of the firm, such as legal structure, sector of industry, size and age of firm, use of external advisers and business plan, and the profile of the OM, based on gender, race, age, training, education and business experience, are all factors which will influence financial decisions. These factors will also influence the perceptions of external financiers in assessing applications for funds.

Legal Structure

The choice of legal structure of a business can influence its ability to obtain external finance. Achieving limited company status is perceived by OMs as a method of
solving problems in raising finance (Posner, 1986), because it gives greater credibility to lenders/investors (Freedman & Godwin, 1992). Unincorporated firms' are typically constrained by the availability of collateral in obtaining finance (Godwin, 1993), because they usually have only one major asset, i.e., the OM's family home. Godwin (1993), highlighted the fact that:

Banks have also traditionally preferred collateral in the form of real property. Consequently, the price of houses is highly important to this sector. The property crash has had a substantial impact on the banks, who have been caught both by lending too heavily to such a volatile sector, and by losses on collateral for failed loans, and very small firms have been particularly hard hit by this shrinkage in the value of their main collateral asset.

Godwin then suggested that “a system of credit guarantees could be introduced for those who, because of falling house prices, find their collateral eroded.”

However, Barlow and Robson (1999) found that, at least in the period since 1982, unincorporated businesses have generally not been significantly constrained in their ability to obtain finance; they found evidence of a positive relationship between the growth in bank lending to unincorporated businesses and the growth in housing equity, a measure of collateral availability. While house prices do exert considerable influence, private limited companies are generally more able to access bank finance (Storey, 1994b), and they certainly have more opportunity than unincorporated firms to obtain external equity (Binks et al., 1986).

**Sector of Industry**

Lenders/investors tend to favour certain sectors (Read, 1998). Most studies of SMEs classify them into two sectors such as 'manufacturing' and 'service' firms (University of Cambridge, 1992), or 'manufacturing' and 'non-manufacturing' firms (Storey, 1994b).

Service sector start-ups are perceived as particularly risky. The markets are easy to enter, as capital requirements are low, and there are high exit rates through displacement. These factors tend to result in high competition (Fothergill and Gudgin, 1982). Banks generally prefer to lend on tangible, hard assets such as plant and
equipment (Loscocco and Robinson, 1991) because of their desire to counteract the problems associated with moral hazard and adverse selection. Service sectors lack tangible assets; furthermore, assets tend to have low resale value in the event of bankruptcy, hence service sector firms often receive less favourable terms of credit than those in the manufacturing sector (Therrien et al., 1986; Riding and Swift, 1990).

In the manufacturing sector, firms in the high-tech sub-sector, as stated above, find it difficult to obtain appropriate finance (Waite, 1973; Barber et al., 1989; Westhead & Storey, 1994; Moore, 1994; Barlow and Robson, 1999). Banks are typically cautious about lending to firms in the high-tech sector, particularly in the early stages of development (McNally, 1997). This reluctance to invest reflects the problems of distinguishing between good and bad technology businesses (Mason and Harrison, 1994), as well as the limited collateral of high-tech firms (Baty, 1990; Moore, 1994; Philpott, 1994).

Therefore, many high-tech SMEs have to turn to sources of external equity if their businesses are to survive beyond the seed stage (Baty, 1990; Slatter, 1992; Standeven, 1993; Mason and Harrison, 1994; Moore, 1994) even though it means diluting the entrepreneur's ownership and control (Burns, 1992; Buxton, 1995; Manigart and Struyf, 1995).

Certain sectors of industry, where SMEs dominate, also experience difficulties in financing owing to the absence of incentives for banks to favour long-term lending for productive investment. Chin and Jomo (1996) highlighted the case of Malaysia whereby:

Only slightly over a quarter of Malaysian commercial bank lending goes to manufacturing, agriculture, mining and other productive activities; the percentage is likely to be even smaller with foreign borrowings, most of which have been collateralised with assets such as real property and stocks. Hence, despite considerable government intervention in the financial sector, more than 70 per cent of bank lending in Malaysia has not been for productive investments in manufacturing, agriculture and mining, but for other purposes, especially real property and share purchases and consumer credit.
Literature Review I

Size and Age of Firm

The difficulties in raising finance appear to be inversely related to size and age, in that smaller and/or younger firms face more problems than larger or established firms (Chee, 1986a; Hankinson, 1991; Barrow, 1993; Terpstra and Olson, 1993).

Apart from access to credit, LSEs enjoy lower credit costs on average (Zainal et al., 1994). As Jomo (1998) pointed out such discrimination was more pronounced during the recessionary years of 1985-86 in Malaysia, when the average cost of credit for LSEs was almost 11 per cent lower than SMEs. The smaller and/or younger the SME, the lower the value of assets which can be used as collateral (Binks, 1979; Bannock, 1981; Binks et al., 1992a), hence they are likely to face difficulties in raising finance. The usage of bank credit is inversely related to firm size (Petersen & Rajan, 1994; Cole & Wolken, 1996). The same applies to trade credit (Freear, 1985; Binks and Vale, 1990). As SMEs become established and achieve a sound credit record, they are able to obtain more trade credit (Peterson & Shulman, 1987).

The age of an SME also influences its sources of finance; younger SMEs appear to use less bank and institutional finance than established SMEs (Binks, 1979; Bannock, 1981; Oakey, 1984a; Kee et al., 1986, Peterson & Shulman, 1987; Van Auken & Doran, 1989b; University of Cambridge, 1992).

Use of External Advisers

It is widely recognised that accountants and bank managers are important sources of financial advice for SMEs (Lovett, 1980; Smallbone et al., 1990 & 1993a; Curran & Blackburn, 1994). The type of assistance most commonly received from the bank relates to advice on borrowing (Back, 1977), and financial analysis and business planning (Barclays, 1993; Smallbone et al., 1993a). Over a third of all OMs obtain advice from their bank managers beyond routine cash transactions (Curran & Blackburn, 1994). Service sector SMEs have a low usage of financial advice compared to businesses which experience higher rates of technological and market change (Curran and Blackburn, 1994, p.96). However, Storey (1994b) argued that
SMEs generally do not use external sources of advice very frequently.

Business Planning

Loan applications are rarely considered without a well-formulated and well-presented business plan (Deakins and Hussain, 1991; Berry et al., 1993a; Carty, 1994). Business plans are used by the banks to evaluate the ability of an SME to repay loans and overdrafts. They also give the OM an opportunity to demonstrate his or her skills and experience (Read, 1998).

However, most applications for credit by SMEs are not supported by a realistic and workable business plan (Fertuck, 1982; Roberts, 1983; Salazar, 1986; ACOST, 1990; Barrow, 1993; Boocock and Presley, 1993). ACOST (1990, p.31) highlighted the fact that:

From the investor's viewpoint, the major consideration in deciding whether or not to supply capital is the quality of the business plan presented by the potential borrower. If a firm's management cannot formulate a coherent business strategy, analysing the market opportunity and competitive advantages of its products, together with a clear implementation plan, it can hardly be expected to induce an investor to access accurately, or bear part of, the risks of the business.

Having discussed the characteristics of the firm, we now proceed to discuss the characteristics of OMs.

Gender of OM

Cole & Wolken (1995) found that SMEs run by women were less likely to use banks as a source of capital than businesses owned by men. The former may be less attractive to banks and other potential creditors because women-run firms tend to be small and viewed as being more risky (Coleman & Carsky, 1996a, 1996b, 1997). Lenders may not discriminate against women on the basis of gender, but on the basis of firm size, preferring to lend to larger and more established firms (Coleman, 1998). SMEs owned by women borrow smaller amounts and they are charged higher interest rates.
Hisrich and Brush (1987) perceived that banks were biased against SMEs owned by women. Banks are often: “unsympathetic and patronising” (Goffee & Scase, 1983, p. 636), and base their lending decisions on sexual stereotypes, rather than the ability of female OMs to control their businesses (Buttner & Rosen, 1988). Carter and Cannon (1992) added that banks: “had a notorious reputation of failing to give women’s businesses the credibility they deserve.” SMEs owned by women tend to be more heavily concentrated in service businesses which (as stated in Section 2.4.4) may not have assets that can be used as collateral (Riding & Swift, 1990; Coleman & Carsky, 1996a, 1996b, 1997).

SMEs owned by women are often required to provide more security or collateral than would be required for the same loan to a man (Godfrey, 1992). This finding is supported by Riding and Swift (1990) in their comparative study of male and female OMs in Canada. However, Coleman (1998) argued that the higher collateral requirements stemmed from the fact that female OMs have shorter relationships with their primary lending institutions than men. She suggested that: “developing a relationship with a primary institution may help them to offset their size disadvantage and to obtain more favourable lending terms in the form of lower interest rates and collateral requirements.”

Age of OM

The age of an OM is positively related to the survival of his/her firm (The Sunday Times, 17 December 1995) but it seems to be negatively related to success in obtaining finance (Hustedde & Pulver, 1992). Mature (middle aged) OMs are more likely to own assets and therefore have more security/collateral than the younger or older OMs, hence the latter are more likely to face difficulties in obtaining finance (Cressy, 1993b).

Race of OM

Research in the US and UK has provided ample evidence of problems in financing ethnic minority firms. Bates (1991) found that start-ups owned by black OMs in the
US received smaller loans from banks than similar white-owned businesses and that SMEs owned by blacks were under-capitalised. These lower levels of capitalisation increase the risk of business failure. Bates commented that the failure of SMEs owned by blacks would be no different from SMEs owned by whites if they (black OM) received similar levels of financial support from banks.

Jones et al. (1994) compared the difficulties faced by Afro-Caribbean OM in obtaining bank loans with those faced by Asian or white OM. Afro-Caribbean OM were twice as likely to experience problems in obtaining bank loans than their white counterparts. Banks looked most favourably on applications from Asian OM. Furthermore, Asian OM used more loans from family or friends than either white or Afro-Caribbean OM.

The Bank of England (1999), in its special report on ‘The Financing of Ethnic Minority Firms in the UK’, concluded that:

- Financing problems faced by ethnic minority businesses are similar to those encountered by small businesses in general, although some studies suggest otherwise, at both early and later stages of development.
- the Afro-Caribbean community perceive difficulty in gaining access to finance.
- Some ethnic minority businesses perceive that they are being discriminated against by finance providers, even though there is no evidence to support it, and…
- Banks have taken steps to reduce this negative perception.

The Bank of England (1999) report also claimed that ethnic minority SMEs face difficulties in raising finance because of the sectoral distribution of such firms. Ethnic minority SMEs tend to cluster in sectors of the economy where start-up and exit costs are low, and historic failure rates high.

Bumiputera SMEs face many of the problems encountered by ethnic minority businesses elsewhere, even though the Bumiputera community forms 60 percent of the population as a whole. For example, Bumiputera SMEs are clustered in certain sectors of the economy. Moha Asri (1993) found that new Bumiputera SMEs in Malaysia were concentrated in food, furniture and handicraft industries. These industries face
strong competition, with low profit margins and high mortality rates. The creation of new businesses in low technology, easy-entry activities does not lead to a net increase in employment because demand for such products is relatively fixed. Moha Arif also argued that Chinese OMs were more successful than Bumiputera OMs because they have wider business exposure and connections among the Chinese business community in Malaysia as well as in Southeast Asia. As a consequence of these networks, Chinese OMs are able to ward off Bumiputera encroachment on their territory (Jesudason, 1990).

Fong (1990) found that Bumiputera SMEs were traditionally family-type businesses with limited financial resources. Bumiputera OMs start their business with personal savings or loans from friends and relatives. Aman & Mohd Desa (1990) found that:

Despite assistance provided by the Government, they failed because of poor management skills, shortage of funds, difficulty in collecting debts, heavy interest on borrowings, heavy taxes and difficulty in getting credit facilities. They became too dependent on banks for financing and too dependent on Government contracts in order to survive.

In cases where Bumiputeras have been granted Government contracts and licences, these contracts and licences are often subcontracted or leased to non-Bumiputeras, owing to a lack of financial capabilities (Abdul Khalid, 1990).

In summary, therefore, Bumiputera SMEs are concentrated in sectors where technology is low, entry costs are minimal and failure rates are high. Bumiputera OMs cannot compete on equal terms with their Chinese counterparts.

**Training, Education and Experience of OM**

Management education and training in SMEs is critical for the development of the firm (Holliday, 1995, p.10). For example, growth requires considerable financial investment, but obtaining finance is often contingent upon the skills of the entrepreneur. Education and business (particularly managerial) experience are regarded by lenders as critically important when evaluating start-up companies (Brophy, 1989; Berry et al., 1993b). Berry et al. also found that lenders like to see a
connection between past experience and the skills required to start a new business, in order to avoid problems associated with adverse selection. Fong (1990b) emphasised that OMs have to acquire appropriate skills and know-how before they can venture into their own businesses. He reinforced his statement by stating that only 6 percent of OMs started their business immediately after graduation, while 46 percent of OMs were former employees of their firms. Fong (1990b) also found that on-the-job training was important to OMs before they ventured into their own businesses.

The next Section discusses financing problems specific to Malaysia and assesses whether the situation is serious enough for remedial action to be taken by the Government.

2.5.7 Financing Problems in Malaysia

A recurring theme of the analysis above is that finance plays an important role in the development of SMEs. One of the major problems faced by SMEs and locally-owned firms in Malaysia is access to finance (Chee, 1986a & 1992; Chee & Jang, 1988; Md. Salleh, 1990). Financial incentives and assistance in the form of tax relief, grants, and soft loans have, therefore, been offered by the Malaysian Government.

A wide ranging study of manufacturing establishments in Sarawak conducted by the Mara Institute of Technology (Iris et al., 1990), found 10 major problems affecting the stability and growth of firms. The most important problems were limited accessibility to external funds or capital, and shortages of raw materials or components. Certain sectors of industry were most seriously affected, namely the plastic products, the shipbuilding and repair, transport vehicles equipment and non-metallic industries. Another interesting finding was that small scale enterprises considered accessibility to funds as the main problem, while medium scale enterprises were concerned with shortages of raw materials or components and large enterprises complained about the high cost of production.

A study conducted by Moha Asri (1993) on the textile and clothing industry around
Kuala Lumpur found that OMs were denied financial assistance by Government agencies, mainly because the firm did not have a good track record, or the OM lacked academic qualifications or relevant experience. Furthermore, certain institutions provided financial assistance to Bumiputera owners only: applications from non-Bumiputeras were simply rejected. Moha Asri also discovered that SMEs in receipt of Government assistance had achieved only limited success in generating profit, turnover and employment. However, his study cannot be generalised to the SME population as a whole because his sample was small, the research was confined to one geographic location (Kuala Lumpur and Petaling Jaya) and limited to one sector (the textile and clothing industry).

Another study commissioned by MITI in 1994 (reported in Mohamed, 1996) revealed that 879 firms faced problems in getting finance from financial institutions in a sample of 1,900 SMEs. Nearly 50 percent of the SMEs faced problems in getting loans from commercial banks, 19 percent from development banks, 20 percent from Government banks and 11 percent from other financial institutions (Table 2.3). The major problems included financial guarantors (25 percent), red tape in preparing papers in support of applications (24.6 percent), and the need for collateral (19.5 percent). As discussed in Section 2.3, these constraints reflect the caution exercised by financial institutions when dealing with SMEs.
Table 2.3: Finance - Type of Problem by Institution

<table>
<thead>
<tr>
<th>Type of Institution</th>
<th>Commercial Bank</th>
<th>Development Bank</th>
<th>Government Bank</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problems</td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>1. Have to prepare</td>
<td>92</td>
<td>19.83</td>
<td>41</td>
<td>24.55</td>
</tr>
<tr>
<td>many papers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Need collateral</td>
<td>102</td>
<td>21.98</td>
<td>38</td>
<td>22.75</td>
</tr>
<tr>
<td>every time</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Need too many</td>
<td>112</td>
<td>24.14</td>
<td>53</td>
<td>31.74</td>
</tr>
<tr>
<td>guarantors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Credit officers</td>
<td>15</td>
<td>3.23</td>
<td>3</td>
<td>1.80</td>
</tr>
<tr>
<td>not conversant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Credit officers</td>
<td>8</td>
<td>1.72</td>
<td>4</td>
<td>2.40</td>
</tr>
<tr>
<td>not friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Too much red</td>
<td>30</td>
<td>6.47</td>
<td>8</td>
<td>4.79</td>
</tr>
<tr>
<td>tape</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Application</td>
<td>13</td>
<td>2.80</td>
<td>12</td>
<td>7.19</td>
</tr>
<tr>
<td>form too complicated</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Unable to</td>
<td>9</td>
<td>1.94</td>
<td>1</td>
<td>0.60</td>
</tr>
<tr>
<td>obtain credit from</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>suppliers</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Period of credit</td>
<td>26</td>
<td>5.60</td>
<td>3</td>
<td>1.80</td>
</tr>
<tr>
<td>too short</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Amount of</td>
<td>57</td>
<td>12.28</td>
<td>4</td>
<td>2.40</td>
</tr>
<tr>
<td>credit insufficient</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>464</td>
<td>100.00</td>
<td>167</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: MITI Survey

A survey of 149 SMEs conducted by Bank Negara Malaysia (Central Bank) in 1995 (Abdul Hamid and Abdul Rashid, 1996) showed that about 60 percent were suffering from financial constraints (Table 2.4). This survey suggested that financial constraints stemmed from too much red-tape, over-reliance on collateral and the risk-averse lending attitudes of financial institutions. Boocock and Wahab (1997) also found that insufficient finance was often a factor which held back growth and that SMEs faced problems relating to high interest rates and a lack of suitable collateral.

Table 2.4: Financial Constraint by Size

<table>
<thead>
<tr>
<th>Size</th>
<th>No. of Companies</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small</td>
<td>51</td>
<td>3.4</td>
</tr>
<tr>
<td>Medium</td>
<td>39</td>
<td>2.6</td>
</tr>
<tr>
<td>Large</td>
<td>59</td>
<td>4.0</td>
</tr>
<tr>
<td>Total</td>
<td>149</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: BNM Annual Survey 1995

The 1995 Bank Negara survey also highlighted the poor awareness and take up of various incentives offered by the Government, including loans given under the
auspices of the CGC (Table 2.5). With regard to the latter, only 19 percent of the respondents were aware of the facility. The main sources of information about the CGC were the mass media (29 percent of the respondents), newsletters and publications (25 percent) and seminars (18 percent). The problem of awareness might lie with the personnel involved with Government schemes, as these individuals have no incentive to disseminate the information directly to SMEs. Language is another problem that hinders information flows. Most of the Chinese educated OMs are more proficient with Chinese or English, while the Malay educated OMs are more proficient with Malay and English. Therefore, information flows should take into account the language of the target group (Abdul Hamid and Abdul Rashid, 1996).

Table 2.5: Type of Incentives

<table>
<thead>
<tr>
<th>Type of Incentives</th>
<th>Aware</th>
<th>Taken Up</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pioneer Status</td>
<td>42</td>
<td>6</td>
</tr>
<tr>
<td>Investment Tax Allowance</td>
<td>33</td>
<td>11</td>
</tr>
<tr>
<td>Export Incentives</td>
<td>28</td>
<td>14</td>
</tr>
<tr>
<td>Export Credit Financing</td>
<td>22</td>
<td>17</td>
</tr>
<tr>
<td>Reinvestment Allowance</td>
<td>31</td>
<td>25</td>
</tr>
<tr>
<td>Industrial Assistance Funds</td>
<td>25</td>
<td>-</td>
</tr>
<tr>
<td>CGC</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Vendor Development Programme</td>
<td>11</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: BNM Annual Survey 1995; 3

Boocock and Mohd Shariff (1996) confirmed these findings on awareness; only a small minority of borrowers (9.4 percent) knew of the CGC’s existence before the guarantee was issued. The majority (78.1 percent) learned of the CGC from their bankers, and the remainder (12.5 percent) through friends or the press. Most borrowers (81.3 percent) had obtained the CGC funding through their usual bank, and had relied on that bank to apply for the guarantee on their behalf. It was evident that the CGC has maintained a very low public profile, operating at arm’s length from its ultimate clients, the SMEs, a situation which does not prevail in many other countries (Levitsky, 1993, p.6). In such circumstances, the CGC cannot hope to influence the attitude or ability of the debtor to repay the loan.

The financing difficulties faced by SMEs in Malaysia can now be summarised.
Previous studies suggest that the majority of SMEs do not have access to finance, yet many SMEs are not aware of the existence of Government schemes which could help them. This could result from a weakness on the part of the relevant agencies in disseminating financial information to SMEs. While some schemes have reached the targeted SMEs, many firms continue to experience difficulties in raising finance owing to a lack of suitable collateral, high interest rates and the need for security/guarantors. The Moore (1994) study, mentioned in Section 2.5.1, suggested that young, smaller SMEs, with below average profitability and operating in the manufacturing sector, are likely to experience difficulties in raising finance. In Malaysia, the existing Government schemes have tended to focus more on the development of new Bumiputera enterprises, most of which are domestic-oriented and located in 'saturated' sectors such as the food, furniture and handicraft industries (Moha Asri, 1993). Moha Asri emphasises the problems inherent in providing support for Bumiputera SMEs:

Continuing support to these firms may be among the reasons for inefficiency in general terms of the net economic benefit to society. This is because as new firms enter the market, other less efficient or less subsidised firms are forced out. Since competition was strong in the domestic market, the profit margins were expectedly low and their mortality rates were high.

The next Section considers the extent to which the Government has adopted an 'interventionist approach' in supporting SMEs in Malaysia.

2.6 GOVERNMENT POLICY TOWARDS SME FINANCING

The financial system in Malaysia has evolved continuously since independence in 1957. The Government operated a 'laissez faire' system in the 1960s, with limited regulation and no government intervention (BNM, 1992). There were few domestic commercial banks and other financial intermediaries, with foreign banks dominating the banking scenario (Pang, 1995).

However, after the racial incidents in 1969, discussed in Chapter 1, the Government adopted a proactive role and passed the Banking Act of 1973 to govern the
establishment of new financial institutions. According to Aman & Mohd Desa (1996):

> Despite being heavily credit-based, the financial system does exhibit a fairly high variety of financial institutions. However, the characteristics of a credit-based financial system are manifested in the form of high concentration of financial institutions located in the commercial areas.

The Banking Act of 1973 was replaced by The Banking and Financial Institutions Act (BAFIA), 1989, which came into effect in October of that year. It was a comprehensive Act which covered the supervision/regulation of a range of financial institutions, for example building credit, development finance, factoring and leasing businesses (Pang, 1995).

Bank Negara (1992) reported that most businesses were funded by financial institutions rather than capital markets, as discussed in the early part of this Chapter. Commercial banks are the major source of credit for SMEs, accounting for about 20 percent of total new bank credit each year. The Government realised the importance of private sector financial institutions in rejuvenating the economy and began to reduce its intervention in the financial system in 1983, when a policy of privatisation was introduced. The Government introduced a comprehensive and broad ranging privatisation programme: 103 entities had been privatised by May, 1994 (Islam and Chowdury, 1996). However, the agricultural sector as a whole, and some key manufacturing activities (such as automobiles, paper and plastic resins, and a range of processed agricultural products) continue to receive a high level of protection from the Government. There is also limited protection for some key service-sector activities.

Even though the Government attempted to liberalise the financial system, it still held considerable influence on the way funds were managed. The Government has established a number of specialised financial institutions and implemented various policy measures and programmes to make credit available more readily and cheaply to SMEs (ADB, 1990). The measures taken include the imposition of Priority Lending Guidelines and forcing commercial banks and finance companies to allocate a prescribed proportion of their loans to SMEs and the Bumiputera business community. For example, the 1996 Lending Guidelines required commercial banks...
Literature Review

and finance companies to extend new loans to SMEs amounting to RM1 billion and RM240 million respectively (BNM, 1997). For the Bumiputera business community, the quotas for new outstanding loans from commercial banks and finance companies were RM500 million and RM120 million respectively. The CGC was given responsibility for overseeing the distribution of these loans.

According to ADB (1990), the BNM lending guidelines:

Tend to distort the market-determined direction of lending and contribute to misallocation of resources. With an interest rate ceiling, banks have to lend on criteria other than potential profitability. Funds allocated to non-viable enterprises under these controls have a real opportunity cost. The special preference given to small enterprises, which is based mainly on an equity rather than an efficiency criterion, therefore needs to progressively give way to a system in which interest rates are set at a level which provides sufficient spread for the lending institutions to cover their risks as well as the costs of their services to clients. From the SMEs perspective as well, the ready availability of, and access to, credit together with suitable amortization periods are more important than subsidised interest rates alone.

Such criticism has not prevented the Malaysian Government from pursuing an interventionist agenda.

The Government has introduced a variety of agencies and schemes to promote the development of SMEs. In order to strengthen and streamline institutional support for SMEs, the Government has recently rationalised 30 agencies under 13 ministries into five lead agencies. The finance facilities will be coordinated by the Ministry of Finance. The funding schemes administered by the Central Bank (Bank Negara) and other Government Agencies are highlighted in Appendix 2.

Despite efforts by the Government, the feeling still persists that SMEs are disadvantaged in the financial market: in particular, there appears to be an 'equity gap', for share capital and/or long term loans in Malaysia (Boocock and Wahab, 1997). Nevertheless, it is unfair to pin all the blame on the Government, as SMEs have to make greater efforts to organise and improve themselves. SMEs should be more receptive to Government policies and should respond to the initiatives made available (Abdul Hamid and Abdul Rashid, 1996).
2.7 SUMMARY

The first part of the Chapter discussed the importance of the SME sector, then reviewed the theoretical literature concerned with the financing of SMEs. It then covered the financing difficulties faced by SMEs in practice, dealing separately with the situation in Malaysia. Lastly, Government policy towards SME financing in Malaysia was discussed in more detail.

The importance of SMEs in generating socio-economic activity is well documented. The role of SMEs is becoming more important, especially in developing countries which adopt a policy of industrialisation to secure economic growth. SMEs play a key role in supporting LSEs through establishing networks in the supply of semi-finished products and supporting services.

The availability of funds for SMEs in the manufacturing sector depends mostly on the banking system. Strong banking relationships are important to reduce agency costs, notably asymmetric information. In Malaysia a close relationship between banks and SMEs has not materialised, owing to various factors, including restrictions on investment by banks in the shares of SMEs.

Agency theory helps to explain problems which arise in the relationship between SMEs (agents) and their lenders (principals), notably the problem of asymmetric information. SMEs tend to have more information on their operations than their lenders. SMEs do not publish as much financial information as larger enterprises; indeed they are under no obligation to produce verifiable information since their securities are not traded publicly. Furthermore, SMEs fear negative action will be taken against them if information is disclosed.

Information asymmetries work in favour of start-ups. An OM might have imperfect knowledge on the likely success or failure of the firm, while lenders benefit from experience in evaluating similar businesses. Furthermore, a lender conversant with the local market might have superior knowledge of the operating conditions of SMEs in the vicinity.
Information asymmetries impact on young high-technology SMEs because of 'technological uncertainty' and the difficulty of communicating knowledge easily to lenders. In the face of such uncertainty, the response from lenders is to deny credit, even to SMEs that may be creditworthy.

Finance providers face the twin problems of moral hazard and adverse selection. The moral hazard problem occurs when OMs take decisions which increase the risk of, and potential returns to, the project. It is not economic for banks to monitor SME loans closely, in view of the small sums involved. Banks may try to minimise the impact of adverse selection by being risk averse, and bankers prefer to avoid Type II errors which might affect their careers.

Financing problems in practice stem from the nature and size of SMEs. SMEs are alleged to face funding, information and knowledge, and financial skills gaps. Funding gaps seem to affect small, young firms especially start-up and high-technology firms. SMEs are also insufficiently informed and poorly advised about appropriate sources of finance and they suffer problems stemming from poor financial management and planning.

Various studies have shown that the characteristics of the firm and the OM are important factors in the process of procuring capital. Characteristics such as legal structure, sector of industry, size, age, use of external advisers and existence of a business plan have been shown to have some influence upon the financing difficulties of SMEs. OM characteristics, such as gender, race, age, training, education and business experience, can also affect the perceptions and actions of external lenders/investors.

SMEs in Malaysia face financial constraints in terms of access to finance. The Government objective is to assist creditworthy SMEs, which lack collateral and a track record, by giving them ready access to finance. Various policies and programmes have been directed to assist those SMEs which have the greatest potential for enhancing the health of the economy, generating employment, introducing new products, etc.
Notes

1. The Banking system includes commercial banks, finance companies, merchant banks, the Islamic Bank, the Central Bank and discount houses.

2. Development financial institutions include the Malaysian Industrial Development Finance Berhad, the Agriculture Bank Malaysia Berhad, the Borneo Development Corporation, the Sabah Development Bank Berhad, the Sabah Credit Corporation, the Export-Import Bank Malaysia Berhad, the Malaysian Development Bank Berhad and the Industry Bank Malaysia Berhad.

3. Unincorporated firms comprise both sole proprietor firms and partnerships. Godwin studied VAT-registered traders by legal structure and turnover in 1990 and found that unincorporated businesses form the majority of the smallest firms.

4. In Malaysia, 'Bumiputra' businesses lag behind their Chinese counterparts in commerce and industry. A 30 percent target for Bumiputra corporate ownership was retained under the New Development Policy (NDP) and no specific deadline was set for its achievement.
CHAPTER 3

REVIEW OF THE LITERATURE II: CREDIT GUARANTEE SCHEMES IN DEVELOPED AND DEVELOPING COUNTRIES

3.1 INTRODUCTION

The preceding chapter reviewed the theoretical literature underpinning the difficulties associated with the financing of SMEs. Governments across the globe attempt to overcome those difficulties. This chapter reviews the literature on credit guarantee schemes in both developed and developing countries. Section 3.2 examines the rationale for credit guarantee schemes while Section 3.3 states the criteria for the operation of effective guarantee schemes. Section 3.4 reviews models of credit guarantee schemes in operation. Section 3.5 focuses on the operation of the CGC in Malaysia. Finally, Section 3.6 summarises outstanding issues and questions regarding the operation of guarantee schemes.

3.2 RATIONALE FOR CREDIT GUARANTEE SCHEMES

Graham Bannock and Partners, commissioned by the Overseas Development Administration, carried out a global study on credit guarantee schemes over the period 1995-97 (Levitsky, 1997a). They identified 85 countries, both developed and developing, claiming to have such schemes operating in 1996. In several countries there was more than one active scheme, but schemes in some countries existed on paper only, especially in Africa. About 70 credit guarantee schemes are genuinely in operation in the world today.

Some of the schemes have a long history, spanning the period from the late 1930s to the early 1960s. These are especially prevalent in developed countries, including
Japan (launched in 1937), USA (1953), Germany (1954), Italy (1960) and Canada (1961). In several countries the schemes are relatively new, notably those in the Eastern Bloc Region; for example, the Czech Republic, Hungary, Poland, Slovenia, Slovakia and Romania all launched their guarantee schemes over the period 1992-1994. Other schemes introduced since 1991 are found in Egypt, Honduras, and Trinidad and Tobago. In general, however, most of the schemes in developing countries have now been operating for more than 10 years. Table 3.1 shows the starting date of the credit guarantee schemes (CGSs) in several developing countries.

Table 3.1: CGSs in Selected Developing Countries (Start Date of Operations)

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>1980</td>
</tr>
<tr>
<td>Colombia</td>
<td>1981</td>
</tr>
<tr>
<td>India</td>
<td>1981</td>
</tr>
<tr>
<td>Indonesia</td>
<td>1971</td>
</tr>
<tr>
<td>Korea</td>
<td>1974</td>
</tr>
<tr>
<td>Malaysia</td>
<td>1972</td>
</tr>
<tr>
<td>Pakistan</td>
<td>1972</td>
</tr>
<tr>
<td>Peru</td>
<td>1979</td>
</tr>
<tr>
<td>Philippines*</td>
<td>1952</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>1979</td>
</tr>
<tr>
<td>Taiwan</td>
<td>1974</td>
</tr>
<tr>
<td>Thailand</td>
<td>1986</td>
</tr>
<tr>
<td>Zimbabwe</td>
<td>1978</td>
</tr>
</tbody>
</table>

*Virtually inactive until revised in 1976

Source: Levitsky, 1997

Levitsky (1993, p.4) described the rationale for CGSs in developed and developing countries as:

The reluctance of banks to take on the high risks and administrative costs of lending to small businesses has been the reason for the establishment of credit guarantee funds and mutual guarantee systems.

As mentioned in Chapter 1, S2.3, banks perceive SME lending as high risk, and they exercise caution because SMEs are unable to provide sufficient security or collateral to cover their advances. Furthermore, the administrative costs of lending to SMEs are high (in relation to loan size) which reduces the profitability of such loans (Levitsky, 1997a). Guarantee schemes and/or mutual guarantee systems have therefore been set up to provide guarantees to cover some or all of the losses incurred when SMEs default on loans (Levitsky and Prasad, 1989; Levitsky, 1990; Balkenhol, 1990; Siebel, 1995). Discussion over recent years has focused on how much to compensate the lender for the risk incurred in the case of borrower default (Levitsky, 1997a).

However, not all researchers agree that inadequate collateral on the part of SMEs is the stumbling block for lenders. For example, Gudger (1997) found that reducing transaction costs is the key to increasing lending to SMEs. The guarantor (credit
corporation) can help an SME to meet lender requirements by assisting in the production of an acceptable application, feasibility study and business plan. The guarantor may even carry out a full credit analysis before approaching a bank with the application (Stearns, 1993). Guarantee schemes can also help in lowering administrative costs by reducing the expense of handling collateral (Levitsky, 1997a).

It is important to note that guarantee schemes can help in encouraging banks to lend beyond their risk-transaction frontier. Stearns (1993) focuses on how banks weigh up risk and transaction costs, to identify their 'comfort zone' (Figure 3.1).

**Figure 3.1: The Risk-Transaction Cost Frontier of Banks**

![Risk-Transaction Cost Frontier of Banks](image)

Adapted and modified from Stearns (1993)

Guarantee schemes are designed to encourage banks to lend beyond their 'comfort zone' by helping to push the frontier out (or bring potential borrowers in) so that SMEs become acceptable borrowers. According to Stearns:

> The distance that targeted borrowers lie outside the risk-transaction cost frontier is a critical factor for designing an appropriate guarantee mechanism. Sectors close to the frontier, such as well established businesses with creditworthy projects but slightly insufficient collateral, may require a scheme that only reduces the bank's risk slightly. Sectors farther from the frontier may require a significant reduction in risk, as well as a mechanism to reduce transaction costs.
As shown in Figure 3.1, borrower D has high transaction costs but low risk compared to borrower A, which has low transaction costs but high risk. In order to bring borrower D to B (the bankable borrower according to Stearns), the guarantee scheme has to reduce transaction costs. Mechanisms to achieve this reduction could include training bank staff to assess SMEs more efficiently or providing consultants to help SMEs provide proper documentation before approaching the banks.

Altvater (1994) proposed that transaction costs could be lowered in a number of ways: the guarantor collects data and information relating to the loan application and appraises the proposed investment; information about existing collateral is obtained; and, the guarantor could undertake to recover loans in default.

Turning to risk reduction, borrower A can become an acceptable borrower (move from A to B), if the guarantee mechanism ensures that the bank assumes a relatively low percentage of the risk, for example, 15 percent.

For borrower C, having both high risk and high transaction costs, the guarantee mechanisms have to ensure that the bank and guarantor share both the risk and the transaction costs equitably. The move from point C to B (Figure 3.1) can be achieved by combining the reduction of transaction costs and risk as explained above.

CGC provides guarantee cover to reduce the risk associated with SME lending (i.e., to enable the bank to move from Point A to Point B in Figure 3.1). However, the CGC has made no arrangement to reduce transaction costs apart from the Block Guarantee Scheme described in Section 3.5.1 below.

This Section covered the rationale for the establishment of credit guarantee schemes. The next Section focuses on the criteria for the operation of effective guarantee schemes.

3.3 CRITERIA FOR EFFECTIVE GUARANTEE SCHEMES

Stearns (1993) summarised the criteria required for guarantee schemes to function effectively. Firstly, there must be sufficient liquidity in the banking system. This will
induce banks to lend to targeted sectors such as SMEs. Low liquidity encourages banks to concentrate only on preferred borrowers, generally LSEs. The need for adequate liquidity is critical because: “financial markets in most developing countries are not perfectly competitive and are sometimes complicated by non-economic, non-financial considerations (Allahar and Brown, 1995).” Secondly, the participating banks must be responsible financial institutions. Many development banks experience a high level of arrears and are basically insolvent (World Bank, 1989). Thirdly, banks must ensure that transaction costs are efficiently managed, through better management, adequate levels of staffing, and efficient procedures in handling loans to SMEs (Levitsky, 1986). Fourthly, there must be an incentive structure that motivates bank participation and responsible behaviour on the part of all participants. This incentive structure should be based on efficient and effective loan and guarantee approval processes, appropriate risk sharing among all participants, a credible guarantee, and a fair distribution of costs and fees that enables banks to make profitable guaranteed loans. Finally, a guarantee scheme must result in increased utilisation by SMEs if it is to be considered a success.

The interest spreads on guaranteed loans should encourage lenders to earn a reasonable return. Allahar and Brown (1995) advocated that lenders should be free to apply an interest rate commensurate with their risks. Furthermore, they argued that interest rates are “inextricably connected to administrative costs.”

Levitsky (1993), as discussed in S3.2 above, emphasised that a key criterion for the success of a guarantee system is the lowering of administrative costs for lenders. The guarantor can relieve the burden of the lenders by assuming some of the administrative costs entailed in project appraisal by helping SMEs to compile their business plans for loan and guarantee applications, and monitoring the repayment behaviour of SMEs.

Allahar and Brown (1995) discussed the loan guarantee programme in Trinidad and Tobago, where the interest rate charged by lenders to SMEs is one percent above the prevailing prime/base lending rate. Even though the authorities have maintained the interest rate at a low level, the main lenders are prepared to guarantee loans to SMEs because some of the transaction costs are borne by the guarantor. Allahar and Brown
(1995) explained that: "providing developmental services such as business counselling, extension services, technical assistance and business information puts the guarantor into a relationship with the borrower which would not exist in a 'pure' guarantee programme."

In an alternative, but complementary, viewpoint, Oehring (1997) concluded that a guarantee scheme can thrive where there is:

- A market where banks do not meet demand for funding from SMEs.
- Available credit resources in the financial system.
- Guarantee legislation which covers provisioning, capitalisation, and incentives. Guarantee funds should be capitalised adequately to meet their obligations and provisions for doubtful debt should be kept aside to cover defaults. As discussed above, the incentive structure must also motivate banks to lend to the targeted sector.
- Bank supervision which recognises the guarantees as adequate security.
- Second tier reinsurance to absorb some risks. For example, banks in Japan reinsure 70-80 percent of their guarantees to specially created government institutions, Small Business Credit Insurance Corporations (SBCICs). Some countries in Europe, especially those which operate Mutual Guarantee Systems, use Government reinsurance as a lender of last resort.
- Bank loans to SMEs must still be sufficiently profitable even at reduced risks, and hence lower margins.

Stearns (1993) and Oehring (1997) give an overview of the framework in which guarantee schemes can operate successfully. By contrast Levitsky (1997a) focuses on the activities of guarantee providers at a micro level. To achieve the objective for which a guarantee scheme was created, a number of criteria have to be present. These are set out below.
3.3.1 Risk Sharing

The basic feature of any guarantee scheme is the sharing of risk. However, there is no golden rule as to the division of risk between the lenders and the guarantee providers. In Japan and France, for example, the loans are 100 percent guaranteed while in other countries the guaranteed amount ranges between 50-90 percent of the loan. Levitsky and Prasad (1989) commented that:

Where the risk of the lending institution is 30 percent or more, the institutions are less interested in guarantee schemes because they must go through the process of appraisal and obtaining collateral to cover their part of the risk and the costs do not justify adhering to the formalities necessary to obtain a guarantee. In schemes where the risk of the lending institution is lower than 20 percent, there is a danger that more risky loans are sent for guarantees since the lending institution has little to lose.

Oehring (1990) asserted that: "guarantees of less than 50 percent are of little interest to banks, and 100 percent invites abuse." Thus, the guaranteed amount should ideally be in the range of 70-80 percent. This was supported by Levitsky (1993 and 1997a), who stated that banks considered it very unattractive to have risk sharing of 50 percent or less, especially where administrative costs remain high. Levitsky (1997b) emphasised that:

The risk sharing proportion will depend on the track record of the financial institution's SME loan portfolio, the adequacy of the guarantee fund, and the general culture of debt repayments in the country. 'Best practice' indicates that lenders assume at least 30-40 percent of the risk and never less than 20 percent. Risk sharing at 50 percent may significantly lessen the banks' interest in participating in the scheme and may reduce the additionality generated.

However, Levitsky (1997a) stated that lower guarantees are acceptable in certain cases. For example, the guarantee scheme in Egypt offers attractive financial incentives to the participating banks, hence low risk-sharing is not a major disincentive.

Levitsky and Doran (1997) reviewed 70 different guarantee schemes in developed and developing countries and found that 17 of them (about 25 percent) covered only 50 percent, while 8 (11 percent) covered 100 percent of risk. The majority (64 percent) covered between 60 to 80 percent. Most guarantee schemes also set an upper limit for the value of any single guarantee.
The problem of risk sharing is associated with the problem of information asymmetry, as discussed in Chapter 2, S2.3.1. A 100 percent coverage would encourage 'moral hazard' on the part of the borrower (if the extent of the guarantee coverage is known). The bank also has no incentive to reduce moral hazard. However, experience from guarantee schemes in Canada, Japan, Luxembourg, Spain and South Africa shows that 100 percent guarantee coverage is workable, provided that the guarantee schemes have sound management and are backed by a strong finance and banking sector (Levitsky, 1997a).

Finally, the level of risk sharing would not be a concern if lenders approved loans only if they were certain that the project was viable and the client creditworthy, and the lenders made all possible efforts to collect the loan repayments (Levitsky, 1993).

### 3.3.2 Guarantee Fees

The payment of a fee or premium by the borrower is an essential requirement for all guarantee schemes, whether in developed or developing countries. The guarantee payment can be an initial payment for providing the facility, along with an annual fee paid by the borrower, or simply an annual payment or premium based on the amount of the guarantee. (I could find no evidence of Schemes in which both the initial guarantee fee and annual premium are waived.) The scheme in Malaysia has no initial guarantee fee, but an annual premium, whereas in the US there is no annual premium after the initial payment has been made. An additional 0.5 percent of the outstanding balance is charged as an annual service fee in the US (Table 3.2).

Levitsky (1997a) stated that raising guarantee fees to 4 percent annually, or even higher, might deter borrowers from using the scheme. The amount of the fee per se is not critical, but Levitsky argues that it should be set in relation to interest rates. He cited the case of Japan having a 1 percent guarantee fee; even that figure was considered high in 1995, when the prime rate of Japanese commercial banks hit an all-time low of 2.1 percent. By contrast, Malaysia typically has interest rates of 9-10 percent and an annual guarantee fee of 0.75-2.0 percent is not regarded as a major deterrent by potential borrowers.
Table 3.2: Characteristics of Selected Credit Guarantee Schemes

<table>
<thead>
<tr>
<th>Country</th>
<th>Risk Sharing</th>
<th>Coverage</th>
<th>Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Size of Guarantee</td>
<td>Working Capital</td>
<td>Fixed Asset Purchase</td>
</tr>
<tr>
<td>UK</td>
<td>85% or 70%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>US</td>
<td>75% to 80%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Malaysia</td>
<td>50% to 90%</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Sources: Levitsky and Prasad, Department of Trade and Industry (UK), Credit Guarantee Corporation and Small Business Administration.
1. For overdrafts and other credit facilities with no fixed tenure (e.g. facilities subject to periodic review).

3.3.3 Guarantee Claims and Debt Recovery

Stearns (1993) suggested a bad guarantee system is characterised by cumbersome procedures for the payment of claims. The procedure for settlement of claims should be clearly spelled out or the lenders' trust in the reliability of the guarantee agreement will be undermined (Levitsky, 1997a; Allahar and Brown, 1995).

Graham Bannock and Partners (1997) also emphasised that the conditions for triggering claims and for repayment should be set out clearly in a detailed contract between the guarantee corporation and the lender. In order to avoid problems of non-compliance and to encourage voluntary participation by financial institutions in the guarantee schemes, Bannock suggests that a claim for repayment of a loan should be triggered when:

- Arrears and non-payment reach 90 days
- The lender has been formally informed that the loan is in default
- The outstanding loan has been called in
- The loan has been written-off in the accounts of the lender
- Legal proceedings have been initiated to foreclose on any collateral and to recover the debt.
Best practice seems to indicate a claims rate in the order of 2-3 percent of the total amount guaranteed. Although there might be exceptions, a zero claims rate would surely indicate an overcautious approach to the approval of guarantees.

Levitsky (1997a) emphasised that:

A guarantee claim level rising above 5 percent of the total amount guaranteed should give a signal that there is a need to take some remedial action. Claim rates are influenced both by the economic situation in the country and the competence of the financial and banking sector. In Thailand, for instance, claims rose in 1994 and 1995 as the economic situation changed.

It is critical to note that confidence in a guarantee scheme will be shaken if disputes arise over claims for repayment. Lending to SMEs involves risk and banks expect the guarantees to be honoured in the event of the borrowers’ default, provided that lenders have complied with any reasonable requirements imposed by the guarantee organisation. Furthermore, settlement of claims should be neither protracted nor costly (Boocock and Mohd Shariff, 1994). This has been a major source of friction between CGC and the banks in Malaysia. This issue is explored in some detail in Section 3.5 below.

The importance of a fair and efficient claims mechanism has been stressed in the above Section. Another element of the effectiveness of a guarantee scheme is the net cost of operating the scheme. The next Section discusses this issue.

3.3.4 The Net Cost of Operating Guarantee Schemes

As mentioned in Chapter 1, several studies have estimated the net cost of operating the Loan Guarantee Scheme in the UK (NERA, 1990, p.41; Pieda, 1992, p.44). The net cost of that Scheme was £185.5m over the period June, 1981 to March, 1992 (DTI Figure). This figure represents payments under the guarantees, less receipts from premium income and security realisations. (The running costs of the LGS Unit are subsumed within overall government expenditure). The heaviest losses were sustained during the early 1980s, before the failure rate of LGS firms stabilised at around 40 percent, slightly higher than for the small firm sector as a whole (Boocock and Mohd Shariff, 1994).
The costs of operating CGSs in selected East Asian countries in 1994 have been estimated by Hatekayama (1996), shown in Table 3.3.

Table 3.3: Costs of Operating Selected CGSs (1994)

<table>
<thead>
<tr>
<th></th>
<th>Japan</th>
<th>Korea</th>
<th>Indonesia</th>
<th>Malaysia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costs of processing a $1000 loan</td>
<td>$28.27</td>
<td>$71.23</td>
<td>$75.30</td>
<td>N/A</td>
</tr>
<tr>
<td>Costs to the public funds of operating the CGS</td>
<td>$68m</td>
<td>$3m</td>
<td>$20m</td>
<td>$0.2m</td>
</tr>
</tbody>
</table>

Source: Levitsky, 1997a

There are great differences in the cost of processing loans. In Japan, the costs of processing a guaranteed loan of US$1,000 were US$28.17, with the equivalent figures being US$71.23 in Korea and US$75.30 in Indonesia. Staff costs were much higher in the latter two countries. No figure is available for Malaysia.

However the cost to public funds of offering the CGS was estimated at US$68 million in Japan, US$3 million in Korea, US$20 million in Indonesia and US$0.2 million in Malaysia. The apparently high cost of operating the Scheme in Japan (US$68 million) is explained by the heavy subsidies provided by the Small Business Insurance Corporation (SBIC) and the increased incidence of defaults during the recession of 1994. Nonetheless, Hatekayama concluded that the Japanese guarantee scheme had a low default rate over its lifetime and a high recovery rate compared to other Asian programmes. Its success stems from a long history and a highly developed database. Many of the guaranteed loans are to repeat users; there is full information on most of these borrowers, hence the overall default rate is low. As mentioned in Chapter 1, p.11, the figure for Malaysia (US$0.2 million) has to be seen as questionable. The cost of operating the CGC is extremely low because it is able to benefit from interest arbitrage on soft loans received from BNM (the Central Bank). Boocock and Mohd Shariff (1996) criticised the CGC for failing to disclose information on the costs of operation, stating that “a more open approach to disclosure, with a breakdown of the cost for the individual schemes, might encourage sustained usage of the NPGS.”

3.3.5 Additionality

Additionality consists of two elements: finance and economic additionality. Finance additionality is defined as the intervention of a government-backed loan scheme that
enables SMEs to gain access to loans from commercial banks or finance companies, which would not have been available in the absence of the scheme. Economic additionality relates to how much additional employment, turnover and profit has been generated by the Scheme. Meyer and Nagarajan (1996) stated that: “it is difficult to measure additionality in SME lending because additional loans must be good loans, repaid, and produce positive results for the borrowers.” Levitsky (1997a) commented on how additionality might be achieved, for example, by authorising guarantees for first-time borrowers only, and concluded that such conditions would be too restrictive. Some guarantors insist that borrowers show evidence that their loans have been rejected by banks before they can apply for a guarantee; this is hardly conclusive proof of additionality in most cases. Another problem that distorts additionality might occur if there are ‘quotas’ or penalties imposed by the government (Graham Bannock and Partners, 1997). As discussed in Chapter 2, S.2.6, this situation exists in Malaysia and other developing countries such as Pakistan, India and Indonesia. These quotas might cause banks to approve guaranteed loans for high-risk borrowers simply to meet the quota (ADB, 1990; Levitsky, 1997).

Despite the difficulties involved, several researchers have attempted to estimate finance and economic additionality (NERA, 1990; Pieda, 1992; Boocock and Mohd Shariff, 1996). With regard to finance additionality, Robson Rhodes (1984) suggested that fewer than one-half of the LGS loans were genuinely additional, a pattern which was confirmed by NERA (1990). The most recent survey (Pieda, 1992) indicated that 68 percent of the Scheme’s lending by value was additional, a remarkable improvement. However, Pieda did point out that a high default rate was associated with cases of high finance additionality, typically lending to OMs with no record of achievement, or to businesses with little prospect of generating high returns. Turning to economic additionality, the Pieda study (p.67) stated that ‘almost all’ of the firms which felt able to comment on this issue considered that output, employment and profits were higher than would have been the case without the LGS. The Pieda study (1992, Chapter 8) also stated that economic additionality, for the economy as a whole, was found to be low where service sector firms, especially retailers, were involved. Manufacturing firms generally have a greater economic impact and create jobs. At the national level, it was rare for LGS-assisted firms to export their products or substitute for imports.
Oehring (1996) reported that FUNDES, the Swiss-based international guarantor for SMEs in Latin America, estimated finance additionality for its schemes to be 90 percent, with significant economic additionality. Graham Bannock and Partners (1997) commented that "no explanation is given as to how this figure was reached except that this was the conclusion after a full review of guarantees granted in 1993 and 1994 in six countries – Panama, Costa Rica, Guatemala, Bolivia, Chile and Colombia." Another study conducted by Riding and Haines (1995) estimated that "approximately one-quarter to one-third of Small Business Loans Act (SBLA) borrowers are unquestionably additional." They also found that, even though only 20 percent of SBLA loans represent economic additionality, the SBLA "nonetheless contributes significantly to economic prosperity, job retention and creation."

Finally on this theme, Levitsky (1997a) concluded that finance additionality of at least 30-35 percent exists in all guarantee schemes that are properly designed and implemented. However, he added that:

Economic additionality (strengthening businesses, increasing profit and sales, employment, export, and so on) may be considered by most designers of guarantees as a more important objective than financial additionality. Finance additionality of at least 60 percent should be the minimum acceptable for justifying a CGS. Sample studies should be carried out by CGSs every two to three years to verify the degree of additionality achieved in lending to SMEs.

### 3.4 MODELS OF CREDIT GUARANTEE SCHEMES

Credit guarantee schemes are usually established with government financial backing, to compensate the banks and financial institutions for the losses sustained when borrowers default on loans. Publicly funded guarantee schemes operate in many countries. In other countries, guarantee schemes are financed, at least partially, by funding from external donor agencies or funded through contributions from regional authorities, associations or membership organisations and the financial institutions, or from fees or premiums paid by the borrowers (Table 3.4).
Table 3.4: Funding of Current Schemes

<table>
<thead>
<tr>
<th></th>
<th>OECD1</th>
<th>CEN. EUR</th>
<th>ASIA</th>
<th>AFRI CA</th>
<th>LAT. AM</th>
<th>MID. EAST</th>
<th>CAR' BEAN.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Funded Schemes</td>
<td>12 (57%)</td>
<td>7 (88%)</td>
<td>15 (88%)</td>
<td>3 (60%)</td>
<td>9 (69%)</td>
<td>2 (100%)</td>
<td>2 (50%)</td>
<td>50 (71%)</td>
</tr>
<tr>
<td>Non-Public Funded Schemes</td>
<td>9 (43%)</td>
<td>1 (12%)</td>
<td>2 (12%)</td>
<td>2 (40%)</td>
<td>4 (31%)</td>
<td>0 (0%)</td>
<td>2 (50%)</td>
<td>20 (29%)</td>
</tr>
<tr>
<td>Total</td>
<td>21 (100%)</td>
<td>8 (100%)</td>
<td>17 (100%)</td>
<td>5 (100%)</td>
<td>13 (100%)</td>
<td>2 (100%)</td>
<td>4 (100%)</td>
<td>70 (100%)</td>
</tr>
</tbody>
</table>

Source: Graham Bannock & Partners Survey, 1997
1. Partial funding from external donor agencies and others.
2. Comprised of 29 countries including Europe and North America which have guarantee schemes.

Levitsky (1993) explained the operation of non-publicly funded schemes:

This concept of credit guarantee involves a different approach and may also be considered as an attempt to decentralise guarantee schemes. In this approach a credit guarantee association (CGA) or, as it is often called, a mutual guarantee society or system (MGS), is a group of people who come together to undertake a common guarantee for a loan application of a member of the group in favour of the lending institution. As such, the CGA or MGS is a form of 'self help' on the part of the target group.

CGAs or MGSs have mainly been established in European countries (the term MGS is taken from the French name, the French Organisation de Credit Mutuel). At present Italy and France have far more MGSs than Belgium, Germany, Luxemburg and Spain, as shown in Table 3.5.

Table 3.5: MGSs in the European Union (EU)

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of MGSs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>18</td>
</tr>
<tr>
<td>Denmark</td>
<td>12</td>
</tr>
<tr>
<td>France</td>
<td>286</td>
</tr>
<tr>
<td>Germany</td>
<td>28</td>
</tr>
<tr>
<td>Italy</td>
<td>642</td>
</tr>
<tr>
<td>Luxemburg</td>
<td>2</td>
</tr>
<tr>
<td>Spain</td>
<td>23</td>
</tr>
</tbody>
</table>

Source: Hughes, 1994

Deakins and Philpott (1994) described a key element of MGSs as SMEs cooperating with banks and other trade-related associations to pool information about the credibility of a particular project. CPPBB (1997) confirmed that "there is a strong element of networking in an MGS since it specifically involves SMEs helping themselves and each other to gain access to finance more easily by reducing
uncertainty and pooling risks." Brusco and Righi (1989) gave an example of an MGS operating successfully in Modena, Italy. A consortium of 3,500 craftsmen had guaranteed 10 billion lire in loans and suffered losses of a modest 70 million lire in unrecovered debts. The Modena loans are mutually guaranteed by scheme members who have strong incentives to prevent default, and a strong moral pressure not to default themselves (Hughes, 1994).

However, MGSs have the potential to operate as closed shops, with established firms preventing new entrants from gaining access to reasonably priced finance. To alleviate this problem of access, governments encourage healthy competition and cooperation among the MGSs by getting more banks and Chambers of Commerce involved in this process.

Finally, Hughes (1994) recommended that MGSs should receive seedcorn money from governments at their start-up stage because "there is likely to be an undersupply of such schemes unless the state underwrites or subsidises their creation." MGSs could be a potent force in the future, as the European Commission (EC) has promoted MGSs since 1991 and helped to create a European Guarantee Association in November, 1992 (Llorens, 1997).

The advantages of MGSs over government-created guarantee funds stem from the fact that SMEs exert considerable peer pressure on MGS members to repay loans. Furthermore, the MGSs act as intermediaries between banks and borrowers. The MGSs conduct independent appraisals on the borrowers' proposals and, once satisfied with the business's credentials, provide a guarantee to underwrite the loans given by banks. Since the MGSs have a stake in the loans, they exercise care in guaranteeing any loans from their members.

MGSs in the developing countries usually take the form of 'self-help' groups. They have had little success, except in the case of Grameen Bank in Bangladesh where 'peer group pressure' plays an important role in loan repayment. Some countries, including Malaysia with its Amanah Ikhtiar Malaysia (AIM) Scheme, operate self-help programmes for poor and under privileged groups. A detailed study of AIM by the Malaysian Government concluded that it was a more cost-effective strategy for
poverty alleviation than all other approaches (Social Economic Unit, 1991). Subsequently, the Scheme was included in the Sixth Five-Year Plan as a central element of initiatives to overcome rural poverty by promoting self-employment (Hulme, 1993, p.6). Huq (1996) also found that AIM borrowers have benefited from the Scheme; about 92 percent of the borrowers have been able to repay their loans. The Scheme has made a positive contribution in terms of creating assets, generating income, expanding the mobility of professions and achieving self-reliance for micro enterprises.

Where MGSs have had most success, the banks have taken an active role. MGSs can reduce risk and uncertainty in SME lending through networks of co-operation among the business community and the banks. Governments can also play an active role by providing seedcorn money in the early stage of MGS development. According to Graham Bannock (1997), even though the European experience has been adopted by credit guarantee organisations in Asia and other parts of the world, the MGS concept has rarely been exported. Attempts to implement an MGS in Francophone countries in West Africa, for example, has not been successful (Bakenhol, 1992). A scheme in Kenya supported by KfW Germany and USAID collapsed in 1985, and another in the Philippines has not progressed well (Graham Bannock and Partners, 1997).

In summary, MGSs can play an important role in bridging the gap between the mutual guarantee organisation, the business community and the banks in terms of reduced risk and uncertainty in SME lending. Even though the MGS model has not been implemented in Malaysia on a large scale, some philosophical and practical aspects of the model can be applied to the operations of the CGC. This issue will be discussed in more detail in Section 3.5.

Apart from MGSs, Stearns (1993) identified three basic guarantee scheme models that have been used to promote financing for SMEs.

i) Individual Model

This is the simplest model enabling financial institutions to lend to SMEs (Figure 3.2).
Three parties are involved in this transaction, i.e., individual borrower (SME), lender (financial institution, or public enterprise, such as local government) and the guarantor (a guarantee corporation set up for that purpose, or the Central Bank). According to Graham Bannock and Partners (1997), the: “participation of banks as partners in the equity of a national or regional guarantee corporation is quite a common feature of recently created schemes in both advanced and developing countries. The participation may not be voluntary in certain countries, and the use of the scheme’s services by the banks may be their only route to obtain some return on the capital they have invested.” An SME with insufficient collateral or track record is referred by the lender to a guarantor, subject to final approval from the guarantor. The lender accepts the guarantee and, if the SME fulfills other criteria, the lender will approve a loan. The guarantor is paid a guarantee fee by the SME, although the lender may collect this fee on behalf of the guarantor.

If an SME defaults on the loan, the guarantor must pay the amount agreed between lender and guarantor. As discussed in Section 3.3.1 on risk sharing, Stearns (1993) described the mechanism of the guarantee cover:

Some guarantees cover a percentage of loan principal lost by the bank, while others guarantee a percentage of principal and interest lost. Still others guarantee a
percentage of the **amount lent**. If a guarantee covers 50% of the **amount lent**, then the bank will suffer losses only when more than 50% of the loan is defaulted. If the guarantee covers 50% of the **amount lost**, however, the bank and the guarantor will share all losses. These risk related design features are some of the most important determinants of the acceptance and use of a guarantee mechanism by banks.

If the SME pays the loan back without any problems, a credit history will be established and this will facilitate future loans with the lender. Some guarantee corporations under the Individual Model also offer technical assistance to both borrowers and lenders, thereby reducing transaction costs. They provide borrowers with assistance by, for example, producing a detailed business plan to meet the lender's requirements. They may also help lenders by training credit officers in the assessment of SME applications. On the other hand, others may approve the lenders' recommendations after only a cursory evaluation of the applications, provided the borrowers meet the programme participation requirements.

A comprehensive study on the Individual Model was conducted under the auspices of the World Bank by Webster (1989). He studied 70 guarantee schemes around the world, and confirmed that institutions with serious repayment problems were involved in ineffective schemes. In such circumstances, as discussed in S3.3, the lending banks were often publicly-owned, development banks, the guarantor was not credible, and banks were not keen to participate because of insufficient incentives. Levitsky (1986) highlighted the problems of development banks where:

Most of these institutions are suffering from heavy arrears on their loans, with more than a quarter of them having more than half their portfolio affected in this way. One sample of such institutions reported that their net income during the period 1981 to 1983 averaged only 0.8 percent of their total assets and even this figure may not reflect the true situation because in most cases inadequate provision was made for losses.

The role of development banks will be discussed in more detail in Chapter 7, the case studies.

ii) **Portfolio Model**

The Portfolio Model (Figure 3.3) reduces the guarantor's role in assessing and approving loans and relies upon direct interaction between lenders and SME borrowers. It is more efficient than the Individual Model because the lender alone
Literature Review II

approves the loan, rather than lender and guarantor. The guarantor negotiates specific borrower criteria with the lender such as: loan size and terms; level of assets; turnover; employees; profit; and type of qualifying business. SMEs who meet these criteria can be approved by the lender for the loan and the guarantee. The lender and guarantor negotiate the conditions of the guarantee, such as percentage guaranteed, fee, reporting requirements from the lender to the guarantor, and procedures for claiming upon the guarantee.

Figure 3.3: Portfolio Model

![Portfolio Model Diagram]

*Adapted and modified from Stearns (1993)*

Some of the weaknesses of the Individual Model can be rectified by the Portfolio Model, for example, by relieving the guarantor of responsibility for loan approval, the administrative costs of the guarantee mechanism are reduced. However, it is difficult for the guarantor to ensure that borrowers fit the programme’s purposes. To prevent the lender using the guarantee for its normal clients, the guarantor will sometimes charge fees to the lender for the use of the guarantee scheme.

Some schemes under the Portfolio Model have been considered fairly successful, such as those found in India and the US. In India, the Government has been encouraged by a high uptake of loans by SMEs. Financial institutions in India are required by law to
lend a portion of their portfolios to SMEs (Levitsky and Prasad, 1989). However, the slow settlement of claims by the guarantee corporation has resulted in a loss of credibility with financial institutions. In the US, the Small Business Administration (SBA) introduced the Preferred Lender Program (PLP) in 1982, to encourage the greater participation of banks and allow them to approve SBA-guaranteed loans without prior SBA approval. The lending banks were given guarantee cover of 90 percent instead of the 75 percent under the SBA’s normal guarantee program. Rhyne (1988) suggested that the PLP was a reward for banks which shifted from the Individual to Portfolio Model. The PLP reduced the administrative costs of the banks because they no longer had to wait for SBA approval. However, the banks were charged a 2 percent guarantee fee to discourage them from simply lending to safer borrowers. Thus Rhyne (1988, p.115) explained that:

> While a reduction in the default rate is desirable, it is not beneficial if achieved primarily by increasing the number of guarantees going to already bankable clients. The best way to protect against such duplication is to charge a fee that makes it unattractive to apply the guarantee to already creditworthy loans. Thus, the combination of the preferred lender programme with the 2 percent guarantee fee enacted in 1986 should make for an improved programme.

Nevertheless, the Portfolio Model has also experienced some drawbacks, especially in the case of the Loan Guarantee Facility managed by the Agency for International Development (AID) in Botswana. According to Lintz et al. (1990), the banks agreed to participate because of political pressure from the Botswanan Government, rather than because they wanted to increase their activities with small businesses. From August, 1988 to September, 1990, only 18 percent of the $1.6 million available was used for guarantees. The reasons for the programme’s low utilisation rate included:

- Proposals to guarantee SME loans were rejected owing to weak business planning and insufficient managerial skills, rather than a lack of collateral.
- Banks considered the programme solely as an insurance scheme, rather than as an incentive to increase lending to riskier borrowers. The guarantee did strengthen the collateral position, but banks were seeking to lend only if the projects were viable and a good management team was in place.
- The demand for credit from SMEs was much smaller than was perceived by the Botswanan Government.
• Banks had a shortage of qualified banking staff to manage SME accounts, in a situation when there was excess liquidity in the banking system. As a consequence, there was no incentive to venture into the SME sector as it was less profitable than lending to LSEs.

Overall, the AID Guarantee Unit was seen as politically driven rather than operating in a socially responsible manner or broadening the customer base of the banking system (Lintz et al., 1990, p. 74).

The facility in Botswana is part of the AID to help SMEs in developing countries. Other countries also experienced a low utilisation rate. In some developing countries, the macroeconomic system changed and governments imposed credit constraints on the banking system. This restricted lending by banks which would have utilised the AID guarantee programme. In other countries, SMEs did not know how to approach the banks and vice versa. Therefore, AID implemented a training programme for participating banks and SMEs (USAID, 1992). According to Meyer (1996), African usage rates under the AID guarantee programme were only 19 percent on average compared with 34 percent in Asia. On the other hand, the leverage achieved so far is impressive. Graham Bannock and Partners (1997) reported that USAID claims that on average $1 of appropriation has supported $25 in lending. In 1994/5, the annual allocation was $1.5 m, which was designed to allow a further $40m of guarantee commitments to be added to the portfolio. If fully utilised this would support $80m of additional lending.

Overall, therefore, the Portfolio Model is more efficient than the Individual Model because the lender alone approves the loan, rather than lender and guarantor. This is significant since the administrative costs of the guarantee mechanisms are reduced. Furthermore, the processing of loans is much faster when one party (the lender) processes and approves the loans rather than both the lender and guarantor. The CGC adopts the Individual Model and there is evidence from SMEs that it takes a long time for the loans to be processed. This issue will be discussed in more detail in Section 3.5.
iii) Intermediary Model

The Intermediary Model has been developed to assist the microenterprise\textsuperscript{2} sector. This model recognises that microenterprises exceed the lender's normal risk/transaction cost frontier, as outlined in Figure 3.1 above. A specialised organisation therefore acts as an intermediary between lenders and borrowers (Figure 3.4). The intermediary is usually a non-governmental organisation (NGO). The NGO, a non-profit organisation, undertakes the appraisal, approval, monitoring and supervision of loans, and develops procedures specifically for its clientele. The guarantors usually come from donor agencies such as the AID, the World Bank, and Accion International.

Figure 3.4: Intermediary Model

In the Intermediary Model, the bank does not lend to the final borrower, but to an NGO. This avoids the high costs associated with making a host of smaller than normal loans, reducing the transaction costs significantly. The NGO will be responsible for the losses sustained by the default of its borrowers. The NGO itself will only default on its loan from the banks if it suffers massive defaults by its borrowers.
Table 3.6: Strengths and weaknesses of the Intermediary Model

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. There is a clear division of responsibility, with the intermediary (supported by a guarantee) fully responsible for repayment to the bank. The intermediary is also fully responsible for recovering the loans to the final borrowers so that it can repay the bank loan.</td>
<td>1. Scarcity of effective credit intermediaries. The lack of effective intermediaries may be a critical problem for funders trying to channel rediscounted lines of credit to the small business and microenterprise sector through the commercial banking system with a guarantee mechanism.</td>
</tr>
<tr>
<td>2. Inexperience on the bank’s part is less of a problem because the bank can assess the intermediary’s financial situation and portfolio quality before making the loan. Intermediaries are similar to the bank’s typical clients, making it easier for the bank to assess their creditworthiness rather than that of a microentrepreneur.</td>
<td>2. An intermediary guarantee mechanism will not be widely used if less expensive sources of funds are available to the intermediaries.</td>
</tr>
<tr>
<td>3. It is easier for the guarantor to assess the risk of, and monitor, one loan to an intermediary, than many loans to small borrowers.</td>
<td>3. If the targeted borrowers are not prepared to pay higher-than-commercial rates for loans, then the Intermediary Model cannot be effective.</td>
</tr>
<tr>
<td>4. An intermediary with credit experience has more potential to manage the risks involved in borrowing than do individual OMs, and the intermediary can spread the risks across a portfolio of loans.</td>
<td></td>
</tr>
<tr>
<td>5. An intermediary providing credit to small businesses and microentrepreneurs can use specialised methodologies for these sectors that minimise the level of arrears and defaults.</td>
<td></td>
</tr>
<tr>
<td>6. Intermediaries can absorb some of the losses themselves, without defaulting on the bank loan.</td>
<td></td>
</tr>
<tr>
<td>7. The intermediary and its board of directors are more visible members in the local community than individual small OMs. The importance of their reputation within the financial sector, the business community and among the donor community, can be a strong motivation for preventing a default by the intermediary.</td>
<td></td>
</tr>
</tbody>
</table>

Source: Stearns, 1993

Table 3.6, outlines some of the strengths of the Intermediary Model. First, the intermediary is responsible for repayment of its loan from the banks and for the collection of loans from the borrowers. Secondly, the bank can assess the intermediary’s financial situation and portfolio quality better as a single entity rather than evaluating individual microenterprises. This is particularly important where the bank has limited experience in dealing with microenterprises. Finally, the intermediary should have a good reputation within its local and donor communities.

Some of the weaknesses of the Intermediary Model are also shown in Table 3.6. The Intermediary Model will be ineffective if there is a scarcity of NGOs to channel the
funds to SMEs. In Malaysia, for example, not many NGOs are actively involved in lending to SMEs, except for certain schemes which are run by CGC together with NGOs such as AIM and 'Project Tekun'. Secondly, if subsidies are not available, then SMEs would face difficulties in getting loans. For example, the Chief Executive Officer of CGC highlighted the problem of CGC having limited capacity for lending to SMEs. One source of credit is the World Bank, which provides rediscounted lines of credit in the form of subsidised interest rates, to guarantors (governments) who disburse the funds to financial institutions and finally to NGOs. Finally, since NGOs depend on funds from financial institutions, they will charge a higher rate of interest to SMEs, to compensate for the risks of default. Such a situation is unlikely to be imposed in Malaysia where low interest rate ceilings are imposed by BNM on loans to priority sectors such as SMEs and Bumiputera OMs (ADB, 1990). Despite these weaknesses, however, the Intermediary Model has the greatest potential to produce a high level of utilisation and a low level of losses for microenterprises (Stearns, 1993).

In summary, there are three models under which credit guarantee schemes operate in developed and developing countries. These are the Individual, Portfolio and Intermediary Models. The Individual Model is the most widely used, and Malaysia is no exception. The financial institutions participate as partners in the equity of the CGC, a situation prevalent elsewhere. The NPGS is based on the Individual Model, which means there is no contact between the CGC and its ultimate SME borrowers. Hence, the NPGS reduces risk for the banks, but not transaction costs. However, CGC does adopt the Portfolio Model in certain circumstances. For example, there are facilities under a Block Guarantee Scheme (see page 82) whereby the CGC allows the banks to guarantee smaller loans under the NPGS umbrella. The CGC does not follow the Intermediary Model, owing to its lack of capacity for lending and the limited number of NGOs involved with SMEs in Malaysia. Nevertheless, the CGC does utilise this approach in conjunction with NGO partners, for example, the AIM scheme described above.

The next Section focuses on the operation of the CGC.
3.5 OPERATION OF THE CGC IN MALAYSIA

3.5.1 Introduction

The CGC in Malaysia was established in 1972 to assist SMEs to obtain credit facilities at reasonable cost. The Government considered that such an organisation was necessary owing to the impact of a number of interwoven factors. These factors have been discussed above, but are repeated here to emphasise the key points. The first factor is the reluctance of financial institutions to shoulder the higher risk associated with lending to SMEs, a risk which stems from the high mortality rate of such enterprises. Secondly, SMEs lack acceptable collateral to protect the lender in case of default (Chee, 1992). The Government hoped that provision of guarantee cover would make SMEs more attractive to financial institutions. Thirdly, SMEs rarely keep proper records, such as balance sheets and income statements, to use in support of loan applications. Faced with information asymmetry, as mentioned in Chapter 2, S2.4.1, a lender's response may be to deny credit to SMEs that are entirely creditworthy, but unable to produce acceptable documentation (Coleman, 1998).

The CGC itself does not lend to SMEs; all the funds are provided by the banks and other financial institutions. If borrowers default, the CGC settles claims based on the amount of the guarantee. The CGC provides guarantee cover for credit facilities extended to eligible SMEs in three broad sectors, namely, general business, manufacturing and agriculture.

The CGC's capital is held by BNM, the commercial banks and finance companies, in the ratio 20:50:30 respectively. BNM issues guidelines to the commercial banks and finance companies covering the amount of CGC-linked lending to be undertaken. This is a critical factor, one which has a pervasive influence on the utilisation of the CGC's Schemes. Penalties are levied on individual financial institutions for non-compliance with targets, a frequent occurrence (Boocock and Mohd Shariff, 1995). In March, 1996, for example, the target (Bank Negara, 1996) for loans below RM500,000 was:

The guarantee cover must be at least RM1 billion for the commercial banks and RM240 million for the finance companies. In addition, one-half of the allocated quotas have to be extended to Bumiputera borrowers.
The commercial banks and finance companies had to comply by 31 March, 1998, with one-half of the minimum requirement to be met by 31 March, 1997. The impact of the quota system will be discussed in more detail in Chapter 7.

Based on the Individual Model, the CGC is approached only after a lender has declined a request for conventional funding. In theory, the guarantee is only approved, provided that conventional finance would have been offered if collateral had been available. However, in my discussions with financial institutions, it emerged that the CGC has considerable discretion to reject loans. There are instances in my case studies where genuine applications for NPGS loans were rejected by the CGC without valid reason. The relationship between SMEs and financial institutions can become strained if the CGC does not explain the reasons why the loans are rejected. Lenders feel aggrieved that the CGC has rejected applications, but has not incurred any costs of appraisal. This issue will be discussed in more detail in Chapter 7.

The CGC has taken steps to reduce and simplify the lender’s administrative procedures by introducing the Block Guarantee Scheme (BGS) within the NPGS. However, the Block Guarantee Scheme only applies to NPGS loans for RM50,000 and below, and the maximum guarantee cover is 70 percent of the value of the loans in each block, irrespective of the security offered (CGC, 1998). As Stearns (1993) pointed out in S3.4, the BGS (based on the Portfolio model) should be more efficient because the entire processing and approval functions are entrusted to the lending institutions. This will reduce transaction costs. However, this measure has not been implemented for NPGS loans over RM50,000.

On the same theme, the Government has recently attempted to reduce transaction costs for the banks for smaller loans, as the Entrepreneur Development Ministry and the CGC have taken over the processing of loans under the Small Entrepreneur Fund (Utusan Malaysia International Edition, 4 June 1999). This a temporary measure to speed up the processing of such loans in the face of complaints by the SMEs. The Government, through BNM, directed the CGC to set up the Small Loans Unit to process applications for loans and adopt a ‘hands-on’ approach in settling a backlog in applications (Utusan Malaysia International Edition, 21 June 1999).
The next Section will explain in more detail the operation of the CGC's major schemes, to put in context the issues and problems faced by the CGC when implementing these schemes.

### 3.5.2 The CGC's Guarantee Schemes

Since 1972, four main facilities have been offered by the CGC:

1) The General Guarantee Scheme (GGS), operating from 1972-81;
2) The Special Loan Scheme (SLS), 1981-88;
3) The Principal Guarantee Scheme (PGS), 1989-94
4) The New Principal Guarantee Scheme, from 1994-to date.

The concentration here is on the period since 1980 (Table 3.7). The initial introduction of each new scheme has led to an increase in the number and value of loans granted. However, momentum has not been sustained. At certain times Malaysia has been experiencing rapid growth and the facilities offered by CGC were inappropriate for the needs of a growing economy. As a consequence, the Government and CGC decided to repackage the Key Schemes at the start and end of the 1980s.
Table 3.7: The number and value (in RM millions) of CGC approved loans, 1973-98

<table>
<thead>
<tr>
<th>Year</th>
<th>GGS No.</th>
<th>GGS Value</th>
<th>SLS No.</th>
<th>SLS Value</th>
<th>PGS No.</th>
<th>PGS Value</th>
<th>NPGS No.</th>
<th>NPGS Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973</td>
<td>2,292</td>
<td>11.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1974</td>
<td>21,363</td>
<td>164.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1975</td>
<td>12,189</td>
<td>125.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1976</td>
<td>9,538</td>
<td>89.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1977</td>
<td>9,209</td>
<td>89.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1978</td>
<td>9,638</td>
<td>115.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1979</td>
<td>8,552</td>
<td>142.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1980</td>
<td>6,103</td>
<td>124.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1981</td>
<td>1,148</td>
<td>25.8</td>
<td>17,161</td>
<td>498.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1982</td>
<td>294</td>
<td>9.7</td>
<td>16,664</td>
<td>519.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td>236</td>
<td>7.2</td>
<td>10,327</td>
<td>298.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td>150</td>
<td>4.0</td>
<td>7,841</td>
<td>208.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td>77</td>
<td>2.7</td>
<td>5,295</td>
<td>140.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td>40</td>
<td>1.8</td>
<td>4,560</td>
<td>122.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>33</td>
<td>1.3</td>
<td>3,346</td>
<td>75.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>20</td>
<td>0.7</td>
<td>2,450</td>
<td>49.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>5</td>
<td>0.3</td>
<td>1,032</td>
<td>21.4</td>
<td>1,638</td>
<td>78.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5,641</td>
<td>313.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3,349</td>
<td>206.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1992</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,180</td>
<td>174.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,302</td>
<td>205.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>352</td>
<td>32.0</td>
<td>3,146</td>
<td>530.1</td>
</tr>
<tr>
<td>1995</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7,935</td>
<td>1,758.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14,965</td>
<td>3,578.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15,784</td>
<td>3,847.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,711</td>
<td>515.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes:
GGS: General Guarantee Scheme; SLS: Special Loan Scheme; PGS: Principal Guarantee Scheme (withdrawn 28 February 1994); NPGS: New Principal Guarantee Scheme (from 1 March 1994 to date)
Source: CGC

The General Guarantee Scheme (GGS) was the earliest Scheme to be offered, with loans not exceeding RM200,000 for Bumiputera and loans not exceeding RM100,000 for non-Bumiputera borrowers. The CGC decided to phase out the GGS and replace it with the Special Loan Scheme (SLS) in 1981. The SLS was subsequently phased out in 1989. A key factor in the decision to withdraw the SLS was the existence of non-performing loans after the recession of the mid-1980s, and the inability of banks to appraise and monitor the loans according to the strict terms and conditions set by the CGC (Boocock and Mohd Shariff, 1996). The confidence of the commercial banks was shaken in the face of disputes over claims for repayment of non-performing loans.
The CGC replaced the semi-dormant GGS and the declining SLS with the Principal Guarantee Scheme (PGS). The PGS offered support to larger firms, with net assets or shareholders funds of up to RM500,000. The guarantee cover was 70 percent in respect of both clean (unsecured) and secured facilities. The availability of these higher borrowing facilities was eagerly grasped by the banks and SMEs alike. Although 42 percent of PGS loans approved in 1992 were for amounts below RM30,000, the average size of loan had increased from RM27,000 (under the SLS) in 1986 to RM80,000 in 1992 (Boocock and Mohd Shariff, 1994).

The interest margin was pegged to float at 1.5 percent above the base lending rate (BLR) for PGS loans, rather than a fixed rate. While the banks preferred to lend ‘in house’ to SMEs wherever possible, the 1.5 percent margin over BLR allowed them to earn a reasonable return in meeting the quotas for PGS lending. However, Boocock and Mohd Shariff (1996) concluded that:

There was no evidence in our study that raising the interest margin (to 1.5 percent above base lending rate, or BLR) had resulted in the active promotion of CGC loans by banks.

It is significant that the supply of PGS loans slowed down sharply when an interest rate cap of 9 percent was enforced in 1991/2 (Kanbur et al., 1995)

Boocock and Mohd Shariff (1996) suggested that restrictions on interest rates by the authorities can distort the efficient allocation of funds to SMEs, as was the case for the artificially low rates applied to CGC loans in the 1980s. In such circumstances, the banks had to ration credit, since the returns did not reflect the risks involved (Weiss and Stiglitz, 1981; Greenwald et al., 1984). Some commercial banks preferred to face a financial penalty rather than comply with the guidelines, a situation which still prevails today.

The ADB (1990) study on the financing of SMEs in Malaysia recommended that interest rates should be set at a level which provides sufficient spread for the lending institutions to cover their risks as well as the costs of their services to borrowers. For the NPGS, the interest margin was raised to 2.0 percent over BLR and, according to
Boocock and Mohd Shariff (1995), this is now comparable with other guarantee schemes across the globe.

In early 1994, the CGC announced a 'New' PGS which was more comprehensive than the existing PGS. The NPGS itself was revamped in early 1998, when some relatively minor changes were made to the Scheme's guidelines. My questionnaire survey was conducted over the period March to May 1998 and was based on the previous features of the NPGS (Table 3.8).

**Table 3.8: Previous and Revised Features of NPGS (Eligible for all borrowing Approved by Financial Institutions after 1 January 1998)**

<table>
<thead>
<tr>
<th>FEATURES</th>
<th>REVISED</th>
<th>PREVIOUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definition of Priority Sector</td>
<td>Businesses in the priority sector are those engaged in activities promoted by the Government and include those with net assets or shareholders' funds not exceeding RM250,000</td>
<td>Businesses in the priority sector are those engaged in activities promoted by the government and include those with net assets or shareholders' funds not exceeding RM500,000</td>
</tr>
<tr>
<td>Maximum Guarantee Cover</td>
<td>Unsecured Portion</td>
<td>Unsecured Portion</td>
</tr>
<tr>
<td></td>
<td>Non-Priority RM0.5 million</td>
<td>Non-Priority RM1.0 million</td>
</tr>
<tr>
<td></td>
<td>Priority RM0.75 million</td>
<td>Priority RM1.5 million</td>
</tr>
<tr>
<td></td>
<td>Manufacturing RM2.5 million</td>
<td>Manufacturing RM2.5 million</td>
</tr>
<tr>
<td></td>
<td>There is no capping imposed on the secured portion as in the current arrangement</td>
<td></td>
</tr>
<tr>
<td>Percentage of Guarantee Cover</td>
<td>Unsecured Portion</td>
<td>Unsecured Portion</td>
</tr>
<tr>
<td></td>
<td>Non-Priority 50%</td>
<td>Non-Priority 70%</td>
</tr>
<tr>
<td></td>
<td>Priority 70%</td>
<td>Priority 80%</td>
</tr>
<tr>
<td></td>
<td>Manufacturing 80%</td>
<td>Manufacturing 80%</td>
</tr>
<tr>
<td>Guarantee Fee</td>
<td>Loans up to RM1 million</td>
<td>Loans up to RM1 million</td>
</tr>
<tr>
<td></td>
<td>Unsecured Portion</td>
<td>Unsecured Portion</td>
</tr>
<tr>
<td></td>
<td>Non-Priority 1.50%</td>
<td>Non-Priority 0.75%</td>
</tr>
<tr>
<td></td>
<td>Priority 1.25%</td>
<td>Priority 0.75%</td>
</tr>
<tr>
<td></td>
<td>Manufacturing 1.00%</td>
<td>Manufacturing 0.75%</td>
</tr>
<tr>
<td></td>
<td>Loans above RM1 million</td>
<td>Loans above RM1 million</td>
</tr>
<tr>
<td></td>
<td>Unsecured Portion</td>
<td>Unsecured Portion</td>
</tr>
<tr>
<td></td>
<td>Non-Priority 2.00%</td>
<td>Non-Priority 1.00%</td>
</tr>
<tr>
<td></td>
<td>Priority 1.50%</td>
<td>Priority 1.00%</td>
</tr>
<tr>
<td></td>
<td>Manufacturing 1.00%</td>
<td>Manufacturing 1.00%</td>
</tr>
</tbody>
</table>

Source: CGC
On average, the CGC guarantees between 70 and 90 percent of the amount of loans, charging a guarantee fee of between 0.50 to 1 percent of the loan amount (CGC, 1996). The issues of risk sharing and guarantee fees were covered in Section 3.3.1. The key points of Section 3.3.1 were that the guarantee cover should be ideally in the range of 70-80 percent and the guarantee fee should be considered in relation to the prevailing level of interest rates.

The guarantee cover for the NPGS was therefore in line with other guarantee schemes. The business community grasped the opportunity offered by the NPGS with enthusiasm. This was understandable since the old PGS had many weaknesses. Boocock and Mohd Shariff (1995) suggested that several factors might have combined to increase the uptake of NPGS loans: the use of the guarantee to cover all borrowing rather than the excess over the value of collateral - the average value of each loan has risen sharply; the provision of loans by finance companies as well as banks; and the conversion of conventional bank or 'old' PGS loans to the NPGS. However, some of these assumptions are investigated in my current study. For example, the relationship between the availability of CGC support through finance companies and the utilisation of the NPGS is discussed in detail in Chapter 6.

My discussions with financial institutions and borrowers regarding the level of guarantee fees highlighted some dissatisfaction, especially concerning the implementation of the payment of the guarantee fees. Payment of the fee to the CGC is due on the drawdown of the facility. However, the customers frequently pay for the guarantee before NPGS loans are released. The period for approval of the guarantee by the CGC sometimes lasts longer than 3 months. This naturally causes difficulties for borrowers, an issue which will be discussed further in Chapter 7.

The revised features of the NPGS redefined the priority sectors and guarantee limits, as well as the guarantee fee structure. These changes were designed to take into account the needs of the SMEs while reducing the credit risk exposure of the CGC (CGC, 1998). These revised features will obviously have an impact on the utilisation of the NPGS, particularly the non-priority sector without security/collateral. Such borrowers require higher loans, but the guarantee cover was lowered from 70 percent to 50 percent and the guarantee fee increased from 1.0 percent to 2.0 percent (for
loans above RM1 million). The rationale for revising the NPGS was raised during interviews with key informants, discussed in Chapter 7.

The CGC experienced temporary setbacks in the utilisation of NPGS loans over the period 1997-1998. As discussed in Chapter 1, Malaysia, in common with other East Asian countries, experienced an economic downturn from July 1997. The contagion effect spread into the financial system. The financial institutions curtailed their lending operations and the CGC reduced the number and value of its guaranteed loans in line, in line with a drastic decline in the number and value of loans approved by the financial institutions. The CGC revised its guarantee target from RM2 billion to RM500 million for 1998. It was able to meet the revised target and managed to guarantee 2,711 new loans with a value of RM515.9 million (CGC, 1998).

Other schemes operated by the CGC in 1997 included an Interest Free Banking Scheme (IFBS), the Franchise Financing Scheme (FFS) and the Small Entrepreneur Financing Fund (SEFF). The overall value of these additional schemes was RM26.5 million in 1997 (CGC, 1997). In 1998, as mentioned in S3.5.1, the CGC introduced the Small Entrepreneur Fund (SEF) which offers loans ranging from RM2,000 to RM20,000 to microenterprises. The SEF replaced the Loan Fund for Hawkers and Petty Traders and the Association Special Loan Scheme. Loans under SEF are made available through three types of financing packages, namely the Individual Financing Package for individual borrowers, the Integrated Financing Package for groups of borrowers and the Hawker Centre Financing Package, which is promoted jointly with local authorities. By the end of 1998, 4,034 loans involving RM43.0 million had been approved (CGC, 1998).

The CGC also introduced the Flexi Guarantee Scheme (FGS) in March, 1999. This is the latest measure designed by the Government to ensure greater access to credit for viable SMEs lacking collateral, especially those eligible for loans under the Fund For Small and Medium Industries (FSMI), the Rehabilitation Fund for Small and Medium Industries (RFSMI), the New Entrepreneurs Fund (NEF) and the Fund for Food (3F). Appendix 3 summarises the main features of the FGS.
According to CEO of the CGC (The Star, 11 March 1999), there are three differences between the NPGS and the FGS. Firstly, the FGS will accommodate a guarantee even if the borrower does not have a good record, provided there is business viability. Secondly, under the FGS, the annual guarantee fee will be absorbed by the lending institutions, unlike the NPGS where it is borne by the borrower. Thirdly, the extent of the guarantee cover will be negotiated by the financial institutions, instead of being determined by CGC. Thus, the banks determine the parameters in terms of guarantee fee and cover and can set a higher premium compared to the NPGS. Whether these factors will result in higher utilisation will depend on future economic conditions. This is beyond the scope of this study since the FGS has only been implemented quite recently.

The Section above discusses the activities of, and the problems encountered, by the CGC when implementing the various schemes over the period 1980 to 1997. The next Section will compare the effectiveness of the CGC with other guarantee schemes, using empirical results obtained in previous studies.

3.5.3 The Effectiveness of the CGC

Levitsky and Prasad (1989) surveyed 18 programmes in developing countries for the World Bank. They found that 13 of the programmes followed the Individual Model, and highlighted some weaknesses in the operation of these programmes. For example, as discussed in S3.3, the effectiveness of the CGC in Malaysia was weakened by a lack of credibility and the high costs/fees of the CGC’s schemes (Table 3.9).

<table>
<thead>
<tr>
<th>Country</th>
<th>Dates Covered</th>
<th>% of Loan Guaranteed</th>
<th>Volume of Loans Guaranteed</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CGC, Malaysia</td>
<td>1972 to 1985</td>
<td>60</td>
<td>Over 74,000 loans with guarantees outstanding as of 1983.</td>
<td>Poor handling of claims to collect guarantees on defaulted loans; many claims rejected. Insufficient capital in fund to cover claims. Insolvent operation Decreasing utilisation by banks.</td>
</tr>
</tbody>
</table>

Source: Levitsky and Prasad, 1989

Banks had lost confidence in the schemes operated by the CGC. In addition, the CGC
had insufficient capital to cover the claims. Levitsky and Prasad also pointed out that, even if "the guarantee fee were raised and the share capital increased to RM40 million, these measures alone would not make the CGC solvent unless the manner of its operation was changed." The remainder of this Section assesses whether these severe criticisms still hold true.

As mentioned above, Levitsky and Prasad (1989) described the CGC as a passive institution which kept its liabilities to a minimum by rejecting claims on the grounds of technicalities. Prior to 1985, the CGC processed 1,935 claims; only 429 resulted in payment. Over the period from 1986 to 1993, the CGC processed 3,563 claims, totalling RM36.4m, but only 1,505 claims, totalling RM9.3m, were settled. The remaining 2,058 claims (RM27.1m) were either rejected by the CGC or withdrawn by the banks (Kanbur et al., 1995).

It was asserted by CGC that the screening of guarantee applicants was improved on the introduction of the Principal Guarantee Scheme (PGS) in the early 1990s and that the claims procedures had been set out in greater detail. The rules for loan applications were tightened to ensure that banks met the technical requirements of the CGC before the issue of the guarantee. This was intended to avoid any acrimonious disputes arising from the default of the borrower. However, Boocock and Mohd Shariff (1995) argued that the CGC rejected the majority of claims retrospectively: "the banks, rather than public funds, have had to suffer the bulk of the losses stemming from bad debts whereas the cost of operating the CGC has not been ascertained."

The claims procedure is a continuing source of irritation for the lenders. It was therefore anticipated that problems experienced in claiming under the NPGS would be a frequent source of complaints in my case studies. This proved to be the case – refer to Chapter 7.

The Levitsky (1997a) study claimed that the guarantee claims (or loss) rate for the CGC was down to 0.28 percent by 1995. The loss rate is defined as total claims for default paid out as a percentage of loans guaranteed (Levitsky and Prasad, 1989). The claims paid for 1995 totalled RM5.3 million against outstanding loans guaranteed of
RM1.9 billion (CGC, 1995). The low figure of 0.28 percent may give a distorted view, owing to the considerable increase in the volume of guarantees over 1994-95 (refer to Table 3.7). Levitsky (1997a) explained that comparing the level of guarantee claims was difficult where the volume of guarantees was rising, because most borrowers do not default in the first year after a loan is disbursed. The rate of claims on the guarantees outstanding can be assessed only after five or more years of continuous operation. Moreover, the loss rate of 0.28 percent for CGC is somewhat inaccurate because the payment of claims is not automatic, as would be the case in guarantee schemes operating elsewhere. The CGC does not now release accurate information on claims processed or paid, so it is difficult to ascertain the current position. This issue will be discussed in more detail in Chapter 7.

The cost of operating the NPGS is an important area to determine its effectiveness. CGC benefits from interest arbitrage on soft loans received from BNM. Boocock and Mohd Shariff (1996) stated that information on the costs of operation for the CGC was not available, concluding that:

>A more open approach to disclosure, with a breakdown of the cost for the individual schemes, might encourage sustained usage of the New PGS.

The CGC has a leverage level of 8 to 1 (the ratio of outstanding guarantee commitments to the guarantee fund) relatively low by global standards (Bannock and Partners, 1997). In these circumstances, CGC should be able to guarantee more loans. However, the danger of losses is a deterrent to the CGC's management, hence its activity level is low. Graham Bannock and Partners (1997), suggest that:

>In some cases the failure to reach a high level is not due to risk aversion or unwarranted conservatism on the part of lending or guarantee organisations, but rather a result of weaker than anticipated demand for guarantees by SME borrowers and reluctance of banks and other financial lenders to make full use of the schemes. There is also, in many cases, a complete lack of information or even total ignorance of potential users on the existence of the facility and how it operates.

The CGC guarantee fund is based on the endowed funds from BNM and financial institutions. Their support for the CGC is welcome, provided that they are able to represent their interests effectively. However, if financial institutions are simply coerced into investing in the CGC without seeing a commercial benefit from
participation, problems will surely ensue. This issue will be discussed in more detail in Chapter 7.

Another element of the effectiveness of the NPGS concerns finance and economic additionality. A study conducted on the Old PGS in Malaysia (Boocock and Mohd Shariff, 1996) showed that 63 percent of the value of CGC loans could be classed as additional finance. However, the degree of finance additionality found in that study was questionable, mainly because it proved difficult to isolate the influence of the quotas mentioned earlier. Furthermore, the figure of 63 percent refers to bank finance only, whereas other studies include data on non-bank funding. With reference to economic additionality, Boocock and Mohd Shariff found that local displacement effects were high in Malaysia, export activity or import substitution was low, and innovation was infrequent.

Boocock and Mohd Shariff (1996) considered whether finance and economic additionality would improve or decline in light of the abolition of the quota system for the NPGS. They stated that “attempts to distort market forces, by imposing quotas, have not resulted in high levels of finance and economic additionality.” Turning to economic additionality, for the NPGS to achieve a higher degree of economic impact, they suggested that the CGC’s portfolio of companies would have to be radically altered. The key question is whether the differing objectives of the various parties (the CGC, the banks, SMEs and the authorities) could be reconciled. For example, the exclusion of certain types of proposition (particularly retailers) would offer higher economic additionality, but a preponderance of high-risk innovative companies might result in increased bad debts.

The availability of training and external advice for SMEs, as discussed in Chapter 2.2.5.7, affects the utilisation of guaranteed loans. The CGC was revamped, with the proposal to establish two new divisions, Business Development Services and Technical Extension Services, to help SMEs in starting-up, expanding and upgrading their activities. While the CGC aims to provide support services, this ambition has not yet been implemented. The researcher supports the argument of Allahar and Brown (1995) that: “providing developmental services such as business counselling, extension services, technical assistance and business information puts the guarantor...
into a relationship with the borrower which would not exist in a Pure Guarantee Programme. The availability of a support service could help to reduce defaults which stem from poor management on the part of OMs. However to date, the CGC has only provided information sessions and exhibitions to create public awareness of its facilities. During 1998, a total of 36 sessions were held attracting 7,160 participants (CGC, 1998).

3.6 SUMMARY

Credit guarantee schemes in developed and developing countries have been the focus of this Chapter. It opens by discussing the rationale for credit guarantee schemes, namely the banks' reluctance in lending to SMEs. This reluctance stems not only from inadequate collateral, but also from high risks of failure and high transaction costs, which result in low profitability for the banks' portfolio of SME lending. Guarantee schemes encourage banks to lend beyond their comfort zone by helping to bring potential SMEs within an acceptable risk/return profile.

For any guarantee scheme to be considered effective, it must fulfil a number of criteria (Levitsky, 1997a).

Firstly, it must result in increased utilisation by SMEs. The issue of utilisation is a focal point of Chapter 4. Secondly, it must generate additionality: SMEs should gain access to loans which would not have been available without the operation of the scheme. However, there is a balance to be struck, as high default rates are associated with cases of high finance additionality. Economic additionality has been found to be low where service sector firms, especially retailers, are involved. Manufacturing firms generally have a greater economic impact in terms of output, employment and profits.

The issues of finance and economic additionality for the NPGS are presently the subjects of heated debate, and these issues will be explored further in Chapter 4.

Thirdly an effective guarantee scheme must ensure that its net cost is kept to manageable levels. The default rate has to be low and the loan recovery rate high. The guarantee institution must also ensure that the procedure for payment of claims is explicit and clear; payment on claims must be prompt and the guarantee institution
should have direct control of the fund. In order to increase the loan recovery rate, a comprehensive database on all clients and transactions must be developed.

Of three possible models discussed, Stearns (1993) suggested that the Intermediary Model is more effective than either the Portfolio or Individual Model, in situations where the SME sector is composed of many small borrowers which exceed the bank's risk-transaction cost frontier. Furthermore, Stearns stressed that the use of the guarantee must be profitable to banks, and the incentive structure must motivate responsible lending and borrowing behaviour by all parties. This is achieved by careful design of the guarantee mechanism with regard to: risk allocation; costs (including transaction costs) and fees; and type of guarantee. Several issues from the Stearns study will be explored in Chapter 7. How can the CGC promote maximum utilisation of its Schemes? Can CGC utilise the Individual Model as effectively as the Intermediary Model?

The CGC has been in operation since 1972 to assist SMEs to obtain credit facilities at reasonable cost. It provides guarantee cover to SMEs in the general business, manufacturing and agriculture sector. The performance of CGC has been subject to criticism by researchers, especially its claims procedure in handling loans. The CGC does not release accurate information on claims processed or paid, therefore, it is difficult to ascertain the current position. However, discussions with financial institutions still highlight the problem of claims processed and paid. This issue will be further explored in Chapter 7. The interest margin for the NPGS was raised to 2 percent over BLR which is comparable with other guarantee schemes across the globe. The guarantee cover and fee for the NPGS is in line with other guarantee schemes. However, the payment of guarantee fees frequently precedes the issue of the NPGS loans. The waiting period for approval of a guarantee facility sometimes takes longer than 3 months. This is unacceptable to SMEs.

The CGC revised the features of the NPGS from January 1998. The guarantee cover was lowered from 70 percent to 50 percent and the fee increased from 0.75 percent to 1.50 percent. Experience from other guarantee schemes has shown 50 percent guarantee cover is of little interest to the financial institutions, and 100 percent invites
abuse (Levitsky and Doran, 1997). My study covered the operation of the NPGS before the revised features were implemented.

In terms of the effectiveness of the NPGS, previous research on the old PGS showed that 63 percent of the loans were classified as additional finance (Boocock and Mohd Shariff, 1996). However, the degree of finance additionality found in that study was questionable, mainly because it proved difficult to isolate the influence of the quotas. Furthermore, the figure of 63 percent refers to bank finance only, whereas other studies include data on non-bank funding. On economic additionality, local displacement effects were high in Malaysia, export activity or import substitution were low and innovation was infrequent.

Finally, the cost of operation for the CGC in Malaysia is extremely low because it is able to benefit from interest arbitrage on soft loans received from BNM. However, information on the detailed costs of operation for the NPGS is not available, therefore, it is difficult to ascertain the net cost to the Treasury. This will be discussed in detail in Chapter 7.

Notes


2. Microenterprises are firms employing 4 employees or fewer.
CHAPTER 4
THEORETICAL FRAMEWORK AND HYPOTHESES

4.1 INTRODUCTION

The previous two chapters comprise the literature review that form the basis of this study. The next step was to develop working definitions of the variables identified in the literature review and to formulate the 'conceptual frameworks.' These frameworks relate to the utilisation and effectiveness of the New Principal Guarantee Scheme (NPGS), and allowed the researcher to generate hypotheses governing the relationships between the chosen variables.

This chapter is divided into six sections. Section 4.2 presents the conceptual frameworks. Section 4.3 focuses on the variables thought to influence the utilisation of the NPGS and contribute to its effectiveness. Sections 4.4 and Section 4.5 define the variables used in the analysis and set out the hypotheses, respectively. Section 4.6 is a summary of the chapter.

4.2 CONCEPTUAL FRAMEWORK

The literature review identified certain factors that determine the utilisation of credit guarantee schemes across the globe. These factors assisted in formulating the conceptual frameworks underlying this study. In order to achieve the objectives of this thesis, two conceptual frameworks are put forward. The first is concerned with the utilisation of the NPGS; the second focuses on the effectiveness of the NPGS in meeting the needs of SMEs in Malaysia.

I put forward four main groups of factors to explain the utilisation of the NPGS. These factors or 'independent variables' are categorised as demand and supply factors, and
Theoretical Framework & Hypotheses

the characteristics of firms and OM$s$. The schematic diagram of the conceptual framework for the utilisation of the NPGS is shown in Figure 4.1 below. Each independent factor is postulated to make a distinctive contribution to the utilisation of NPGS loans, the dependent variable (Factor analysis is used in Chapter 7 to assess whether these factors are in fact, independent, i.e., to determine any correlation among the variables). The groups of independent factors are set out below:

i. **Demand factors**
   - Cost of loan
   - Amount of security or collateral

ii. **Supply factors**
   - Claims processed in respect of bad debts
   - Claims paid as a proportion of claims processed
   - Level of quotas imposed by BNM (Central Bank)
   - Involvement of finance companies

iii. **Characteristics of the recipient firm**
   - Legal structure of a business
   - Business sector
   - Size of firm
   - Age of firm
   - Use of external adviser in raising funds
   - Existence of business plan

iv. **Characteristics of the OM**
   - Gender
   - Ethnic group
   - Age
   - Formal technical and entrepreneurial/management training
   - Formal education
   - Business experience
A schematic diagram in respect of the effectiveness of the NPGS (dependent variable) is shown in Figure 4.2 below. The term ‘theoretical framework’ is perhaps not appropriate in this instance, as the three elements below have a high degree of interdependence. My contention is that the effectiveness of the NPGS is based on:

i. **Finance additionality**

ii. **Economic additionality**

iii. **Net Cost of the Scheme**
4.3 MAJOR VARIABLES

4.3.1 Demand Factors

Cost of Loans

It has been established that high interest rates rank as an important problem facing SMEs in developed and developing countries (Stanworth and Gray, 1991; Bradford, 1993; Mohamed, 1996; Boocock and Wahab, 1997). Bank finance is more costly than other sources of finance but it generates higher rates of return for SMEs as they retain control of the business (Keasey and McGuinness, 1990). As discussed in Chapter 2, S.3, LSEs have greater recourse to capital markets than SMEs; the latter tend to rely upon bank financing for raising funds (Boocock and Wahab, 1977), and bank finance is often their only source of credit (Petersen and Rajan, 1992).

Chee (1986a) and Schoombee and Smith (1995), however, have argued that access to
finance, rather than its cost, is the major problem for SMEs in developing countries. A prime objective of the CGC is to enable SMEs to gain access to institutional credit at a reasonable cost (CGC, 1993). The total cost of an NPGS loan consists of the interest rate, fixed at 2 percent above Base Lending Rate (BLR), plus the guarantee fee. The cost of borrowing under the NPGS is typically below the average rate for SME borrowing, which ranges from 2.5 to 4 percent above the BLR. As discussed in Chapter 3, S3.5.2, the guarantee fee payable to CGC ranges from 0.5 percent to 1 percent of the guarantee cover. Levitsky (1997a) considered a guarantee fee of around 2 percent to be an acceptable level in developing countries. The total cost for NPGS borrowers is therefore cheaper than bank borrowing and comparable with other guarantee schemes across the globe.

The interest margin of 2 percent over BLR received by financial institutions on NPGS loans is sufficient to ensure that the financial institutions are willing to supply finance. As discussed in Chapter 3, S3.5.2, the Boocock and Mohd Shariff (1996) study found no evidence that an interest margin of 1.5 percent over BLR resulted in the active promotion of CGC loans by banks. The focus here is on demand from borrowers.

It is hypothesised that there is a negative relationship between the cost of NPGS loans and the utilisation of the Scheme. SMEs seeking access to external funding will utilise NPGS loans provided that the rate is competitive with the rate of interest charged by financial institutions.

In my empirical work, the questionnaire survey focuses on the interest rate element of the total cost of NPGS loans, while the guarantee fee is discussed in the case studies.

**Amount of Security or Collateral**

As discussed in Chapter 2, S5.7, insufficient collateral is one of the main reasons for the failure of SMEs to raise finance (Fong, 1990a; 3i/Cranfield European Enterprise Centre, 1992; Yusof, 1992; CBI, 1993; Abdul Hamid & Abdul Rashid, 1996). This does not apply solely to start-up firms. Cowling and Clay (1995) argue that relatively established SMEs are deprived the opportunity and ability to finance growth because their assets are tied up with existing loans. Hall (1989, p.55) concluded that the "risk
inherent in the SME sector as well as the endemic conservatism of bank managers means that SMEs are required to provide a higher level of security than LSEs. Hutchinson and McKillop (1992) also contend that the increased risk of SME lending warrants higher collateral levels.

Government-backed loan schemes are used to overcome these problems (Meier and Pilgrim, 1994). However, according to Levitsky (1993, p. 5):

Banks do not generally like guarantee schemes, and prefer to obtain material securities as collateral for loans, where they feel they are in better control of the situation. Banks generally fear bureaucratic complications when the guarantee has to be paid out if a default occurs. Since they also regard small enterprise lending not only as risky but also as incurring high transactional costs, and therefore resulting in low profitability, there is usually a major problem in getting banks to participate in guarantee schemes.

To overcome misgivings on the part of banks, guarantee schemes usually insist that some form of collateral, even if insufficient to cover the whole loan, is provided by the borrower (refer to Chapter 3, S3.1). The pledging of security reflects the owner's commitment (Thornhill, 1989; Berry et al., 1993; Storey, 1994a), and the greater this commitment the higher the probability of the firm's success (Van de Ven et al., 1984; Alias, 1990; Cowling et al., 1993).

Levitsky (1993) stated that "only the difference between the collateral offered and that required by the bank should be covered by a guarantee scheme. This is essential to ensure that borrowers do not come to regard the guarantee scheme as another form of government hand-out, and they therefore do not have to be too concerned about repaying the loans". Boocock and Mohd Shariff (1995) highlighted that the guarantee under the NPGS can be used in two ways:

First, it can cover all the facilities made available at the time of approval; the guarantee will cover 70-90 percent of the borrowing. Alternatively, the lender can take the secured part of the lending package outside the arrangement with the CGC. Thus, in the case of a firm wishing to borrow RM200,000, with collateral valued at RM100,000, the bank (or finance company) could choose to have all the borrowing guaranteed by the CGC or simply the excess over the security.

While guarantee schemes are designed to overcome a lack of security on the part of SMEs, some security is usually a prerequisite for bank borrowing to be made available. On balance, however, after reviewing the above literature and current
practice adopted by the CGC, it is hypothesised that there is a negative relationship between the availability of security or collateral and the utilisation of the NPGS. This would imply that borrowers able to offer collateral would obtain conventional bank borrowing, leaving the NPGS as a top-up facility for those borrowers without security. The use of the NPGS as a top-up facility was prevalent in practice. The relationship between security and utilisation will be discussed in more detail in Chapter 6, S.6.6.

4.3.2 Supply Factors

Claims Processed and Paid in Respect of Bad Debts

Kanbur et al. (1995) stressed that the willingness of financial institutions to utilise CGC loans depends on the returns available on CGC lending, the level of bad debts incurred and, critically, the CGC’s willingness to settle claims. The views of key informants in the banking community on these issues are given in Chapter 7.

This study is based on CGC data from 1994-1998, a period in which the actual default rate of CGC-guaranteed firms was not published. The CGC traditionally published annual figures for loans classified as non-performing (NPLs), as well as information on claims processed and paid. The information in Table 4.1 for 1986-1993 is taken from the CGC’s Annual Reports.

The CGC claimed that banks exaggerate the value of NPLs (Kanbur et al., 1995). The figures for the number and value of NPLs (Columns 1 and 2) tend to overstate the potential losses on CGC loans over the period 1986-1993. Kanbur et al. (1995) established that “the value of claims processed (col 5) has certainly been consistently low compared to outstanding NPLs. This is to be expected as claims processed is an annual amount, whereas the figures for NPLs are cumulative.” Claims paid were not settled in full.

My study is based on CGC data from 1994-1998. Unfortunately, the CGC failed to give accurate information on NPLs and claims processed/paid over this period, although it did release the 1998 figures in its Annual Report.
### Table 4.1: Bad Debt Claims Processed and Paid

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilisation (RMm)</th>
<th>Non Performing Loans*</th>
<th>Claims Processed</th>
<th>Claims Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Col 1)</td>
<td>(Col 2)</td>
<td>(Col 3)</td>
<td>(Col 4)</td>
</tr>
<tr>
<td>1986</td>
<td>124.3</td>
<td>12,208</td>
<td>201.2</td>
<td>210</td>
</tr>
<tr>
<td>1987</td>
<td>76.5</td>
<td>13,902</td>
<td>229.3</td>
<td>221</td>
</tr>
<tr>
<td>1988</td>
<td>50.5</td>
<td>12,709</td>
<td>239.5</td>
<td>228</td>
</tr>
<tr>
<td>1989</td>
<td>100.2</td>
<td>11,589</td>
<td>263.6</td>
<td>604</td>
</tr>
<tr>
<td>1990</td>
<td>313.3</td>
<td>10,515</td>
<td>223.2</td>
<td>909</td>
</tr>
<tr>
<td>1991</td>
<td>206.3</td>
<td>9,588</td>
<td>215.0</td>
<td>641</td>
</tr>
<tr>
<td>1992</td>
<td>174.7</td>
<td>8,467</td>
<td>209.0</td>
<td>301</td>
</tr>
<tr>
<td>1993</td>
<td>205.8</td>
<td>7,787</td>
<td>184.8</td>
<td>449</td>
</tr>
<tr>
<td>Total</td>
<td>1,251.6</td>
<td>N/A</td>
<td>N/A</td>
<td>3,563</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilisation (RMm)</th>
<th>Non Performing Loans*</th>
<th>Claims Processed</th>
<th>Claims Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(Col 1)</td>
<td>(Col 2)</td>
<td>(Col 3)</td>
<td>(Col 4)</td>
</tr>
<tr>
<td>1994</td>
<td>530.1</td>
<td>17,500</td>
<td>261.0</td>
<td>1,501</td>
</tr>
<tr>
<td>1995</td>
<td>1,758.7</td>
<td>18,000</td>
<td>416.8</td>
<td>1,605</td>
</tr>
<tr>
<td>1996</td>
<td>3,578.8</td>
<td>18,500</td>
<td>704.0</td>
<td>1,983</td>
</tr>
<tr>
<td>1997</td>
<td>3,847.4</td>
<td>19,200</td>
<td>848.8</td>
<td>314</td>
</tr>
<tr>
<td>1998</td>
<td>515.9</td>
<td>18,500</td>
<td>622.5</td>
<td>232</td>
</tr>
<tr>
<td>Total</td>
<td>10,230.9</td>
<td>N/A</td>
<td>N/A</td>
<td>5,635</td>
</tr>
</tbody>
</table>

Notes:
* Banks' estimate of potential bad debts
** Non Performing Loans as a percentage of outstanding CGC loans
Source: Kanbur et al., 1995 and CGC Annual Reports

Since claims processed and paid are important independent variables for this project, I estimated NPLs and claims processed and paid, based on figures released by the CGC, BNM and newspaper reports over the period 1994-1998. I also questioned key informants from financial institutions on their perceptions of the default rates on NPGS loans.

On the basis of the literature search, published information and discussion with key informants, I formulated two hypotheses.

My first hypothesis is that there will be a positive relationship between the amount of bad debt claims processed by CGC and the utilisation of the NPGS. Financial institutions should be willing to utilise the NPGS (whatever the absolute level of defaults) if they were confident that claims will be met. As mentioned in Chapter 3, S3.1, the level of the CGC guarantee increased from 70 percent under the Old PGS to 80 percent (non-priority sectors) under the NPGS. However, the impact of the revised level of guarantee cover on utilisation is judged to be marginal, compared to the critical importance of the acceptance and prompt settlement of claims.
My second hypothesis is that there will be a positive relationship between the proportion of claims paid by the CGC and the utilisation of the NPGS. The critical relationship is between claims paid and claims processed - Col 6 divided by Col 5 in Table 4.1. As this ratio increases (Col 7), financial institutions should be more inclined to utilise the NPGS because there is greater prospect of a claim being paid.

The two hypotheses relating to claims processed and paid are fully examined in Chapter 7.

**Level of Quotas Imposed by BNM (Central Bank)**

The lending guidelines or quotas for the NPGS were retained until 31 March 1998, when the quota system was abolished for the Scheme. However, quotas were retained for all financial institutions offering loans of RM500,000 and below to SMEs (BNM, 1997). As shown in Table 4.2, even though the overall quota for 1994 was achieved, five commercial banks and 15 finance companies failed to comply with their individual quotas. Likewise, the overall quota for Bumiputra firms was achieved, but five commercial banks and 18 finance companies were fined for failing to achieve the guidelines set by BNM. These figures suggest that the relationship between the imposition of quotas and utilisation of the NPGS is not clear cut. Moreover, the quotas also influence finance additionality. Boocock and Mohd Shariff (1996) found that old PGS loans were simply offered by bankers to pre-selected customers until their quota was exhausted. Branch managers were reluctant to grant CGC-backed loans to firms offering high finance additionality, fearing that a high level of bad debts would affect their promotion prospects.

Notwithstanding these complications, it is hypothesised that there is a positive relationship between the guidelines imposed by BNM and the utilisation of the NPGS. As with the claims processed and paid, it was not possible to test this hypothesis using the questionnaire survey. The influence of the quotas was tested using secondary information provided by BNM (Table 4.2) and interviews with financial institutions.
Table 4.2: Lending Guideline for NPGS

<table>
<thead>
<tr>
<th></th>
<th>Lending Guideline 1994 (compliance date 31 March 1996)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Target (31/3/1996)</td>
</tr>
<tr>
<td>NPGS</td>
<td></td>
</tr>
<tr>
<td>Total guarantee cover (RM million)</td>
<td></td>
</tr>
<tr>
<td>Commercial banks</td>
<td>350</td>
</tr>
<tr>
<td>Finance companies</td>
<td>60</td>
</tr>
<tr>
<td>Non-compliance (no. of institutions)</td>
<td></td>
</tr>
<tr>
<td>Commercial banks</td>
<td></td>
</tr>
<tr>
<td>Finance companies</td>
<td></td>
</tr>
<tr>
<td>NPGS (for Bumiputera community)</td>
<td></td>
</tr>
<tr>
<td>Total guarantee cover (RM million)</td>
<td></td>
</tr>
<tr>
<td>Commercial banks</td>
<td>175</td>
</tr>
<tr>
<td>Finance companies</td>
<td>30</td>
</tr>
<tr>
<td>Non-compliance (no. of institutions)</td>
<td></td>
</tr>
<tr>
<td>Commercial banks</td>
<td></td>
</tr>
<tr>
<td>Finance companies</td>
<td></td>
</tr>
</tbody>
</table>

Source: BNM annual reports 1996

Support from Finance Companies

As discussed in S.4.3.1, in order to ensure greater access to finance for SMEs, the NPGS was extended to finance companies (CGC, 1993). A total of 77 finance companies, with a network of more than 2,000 branches, were invited to participate in the NPGS (CGC, 1993). Finance companies form the second largest group of deposit-taking financial institutions in Malaysia after the commercial banks. Their lending operations are oriented towards consumer lending, principally hire purchase, housing loans and other consumer loans (Pang, 1995). However, finance companies are also involved in leasing and factoring. Various incentives were introduced to encourage finance companies to participate in CGC-backed lending, such as a reduced weighting for NPGS loans in the calculation of their capital adequacy ratios and simplified administration procedures for the processing of NPGS loans.

It is hypothesised that there is a positive relationship between the availability of CGC support through finance companies and the utilisation of the NPGS.

4.3.3 Firm Characteristics

As mentioned in Chapter 2, S2.5.7, achieving limited company status can help SMEs to solve the problems involved in raising finance (Posner, 1986), because such status...
gives greater credibility to lenders/investors (Freedman & Godwin, 1992). Private limited companies are more likely to rely upon bank finance (Storey, 1994b) because they are less constrained by the availability of collateral in obtaining finance (Godwin, 1993).

Therefore, it is hypothesised that there is a positive relationship between limited company status and the utilisation of the NPGS.

It is acknowledged that banks generally prefer to lend on tangible assets (Loscocco and Robinson, 1991) because of their desire to counteract the problems associated with increased risk, moral hazard and adverse selection. Service sector firms lack tangible assets since their assets have low resale value in the event of bankruptcy, hence such firms receive less favourable terms of credit than those in the manufacturing sector (Therrien et al., 1986; Riding and Swift, 1990). Within the manufacturing, firms in the high-tech sub-sector find it difficult to obtain bank finance in their early stage of development (Moore, 1994; McNally, 1997; Barlow and Robson, 1999). Certain sectors of industry (where SMEs dominate) also experience difficulties in financing, owing to the absence of incentives for banks to favour long-term lending for productive investment (Chin and Jomo, 1996). The Malaysian Government has emphasised the manufacturing sector as a priority for the NPGS. The lending guidelines have directed financial institutions to place more emphasis in these sectors.

Therefore, it is hypothesised that there is a positive relationship between manufacturing firms and the utilisation of the NPGS.

It has been established that the age and size of SMEs influence the cost of their credit. LSEs have a lower average cost of credit than SMEs (Jomo, 1998). Firm size was also found to be an important determinant of access to credit, as lenders impose more stringent requirements on smaller companies.

Therefore, it is hypothesised that there is a positive relationship between the size of a firm and the utilisation of the NPGS.
On the same theme, the smaller and/or younger the SME, the lower the value of assets which can be used as collateral (Bannock, 1981; Binks et al., 1992a). The usage of bank credit is inversely related to firm size; the smaller the SME, the less likely it is to use bank credit (Cole and Wolken, 1996). Also younger SMEs with no track record appear to use less bank and institutional finance than established SMEs (Oakey 1984a; University of Cambridge, 1992).

Therefore, it is hypothesised that there is a positive relationship between the age of a firm and the utilisation of the NPGS.

It is widely recognised that accountants and bank managers are important sources of financial advice for SMEs (Smallbone et al., 1990b & 1993a; Curran & Blackburn, 1994). The type of assistance most commonly received from banks relates to advice on borrowing (Back, 1977), but help with financial analysis and business planning is also available (Barclays, 1993; Smallbone et al., 1993a).

Therefore, it is hypothesised that there is a positive relationship between the use of external advisers for fund raising and the utilisation of the NPGS.

Loan applications are rarely considered without a well-formulated and well-presented business plan (Deakins and Hussain, 1991; Berry et al., 1993a; Carty, 1994). Business plans are used by the banks to evaluate the ability of SME to repay finance, and they also give the OM an opportunity to demonstrate his or her skills and experience (Read, 1998).

Therefore, it is hypothesised that there is a positive relationship between the existence of a business plan and the utilisation of the NPGS.

The hypotheses relating to the characteristics of the firm will all be tested by the questionnaire survey.

4.3.4 OM Characteristics

It is widely acknowledged that SMEs run by women are less likely to use banks as a
source of finance than businesses owned by men. The former may be less attractive to banks and other potential creditors because women-run firms are small and viewed as being risky (Coleman & Carsky, 1996a, 1996b, 1997). In addition, SMEs owned by women tend to be more heavily concentrated in the service sector (as stated in section 2.5.7), hence they may not have assets than can be used as collateral (Riding & Swift, 1990). However, lenders may not discriminate against women on the basis of gender, but on the basis of firm size, preferring to lend to larger and more established firms (Coleman, 1998). SMEs owned by women borrow smaller amounts and they are charged higher interest rates. SMEs owned by women are often required to provide more security than would be required for the same loan to a man (Godfrey, 1992).

Therefore, it is hypothesised that there is a positive relationship between male OMs and the utilisation of the NPGS.

Research in both the US and UK has provided evidence of problems in financing ethnic minority firms. Black OMs in the US receive smaller loans from banks than white-owned businesses, and SMEs owned by blacks were under-capitalised, compared with white-owned firms (Bates, 1991). In the UK, Afro-Caribbean OMs were twice as likely to experience problems obtaining bank loans as white applicants (Jones, 1994). Banks look more favourably towards giving loans to Asian OMs compared to white and Afro-Caribbean OMs.

Evidence in Malaysia found that Chinese OMs are more successful than Bumiputera OMs because the former have long steady business experience and wider connections among the Chinese business community in Malaysia and across Southeast Asia (Mohd Asri, 1993). By contrast, Bumiputera SMEs are traditionally family businesses with limited financial resources (Fong, 1990), and they tend to depend on banks for finance and government agencies for the award of contracts (Aman & Mohd Desa, 1990). The Malaysian Government has certainly attempted to discriminate positively to redress racial inequalities.

Therefore, it is hypothesised that there is a positive relationship between Bumiputera OMs and the utilisation of the NPGS.
The age of an OM affects a firm’s ability to obtain finance. Middle-aged OM are more likely to own assets (Hustedde & Pulver, 1992), hence younger and older OM are more likely than middle-aged OM to face difficulty in obtaining external finance (Cressy, 1993).

Therefore, it is hypothesised that there is a positive relationship between middle-aged OM and the utilisation of the NPGS.

Management education and training in SMEs is critical for business development (Holliday, 1995, p.10). Education, both general and managerial, is regarded by lenders as critically important when evaluating companies, especially those in the early stages of development (Brophy, 1989, Berry et al., 1993b).

Therefore, it is hypothesised that there are a positive relationships between technical/EMT, formal education and business experience and the utilisation of the NPGS.

Once again, the hypotheses relating to the characteristics of the OM will all be tested by the questionnaire survey.

4.3.5 Finance and Economic Additionality

As discussed in Chapter 1, S.1.3, the concept of additionality encompasses finance and economic additionality. The extent of additionality is extremely important in judging the effectiveness of the NPGS. Finance additionality occurs as a result of SMEs gaining access to NPGS loans which would not otherwise have been available. Finance additionality is measured at the level of the firm. For the NPGS to be effective, finance additionality should be high without excessive incidence of defaults (Levitsky, 1993). In terms of economic additionality, the higher the additional employment, turnover and profits generated by the firm, the higher the effectiveness of the NPGS. Economic additionality should also take into account displacement effects, i.e., whether additional economic activity in the assisted firms translates into a corresponding increase in the level of activity in the SME sector or the economy as a whole. Finally, economic additionality should also capture the ‘dynamism’ of the NPGS-assisted firms in relation to investment and innovation.
4.3.6 Net Cost

The net cost of the NPGS can be assessed by deducting claims paid by the CGC, and the cost of running its offices from the income from guarantee fees, interest earned on CGC funds and the proceeds of security realisations. These figures will be taken from annual reports of the CGC, as well as interviews conducted with key informants.

4.4 DEFINITIONS

4.4.1 Small and Medium-Sized Enterprise (SME)

There is no generally accepted definition of an SME. One study by the Georgian Institute of Technology, US, for example, identified over 55 different definitions in 75 countries (Manuh and Brown, 1987). Moha Asri (1999) noted that "most definitions appear to have been governed by the interest of the perceiver, the purpose to be served, and the stage of development of the particular environment in which the definition is to be employed." The criteria for defining an SME, however, are mostly based on quantitative measures such as the number of persons employed, the value of shareholders' funds (and/or fixed assets), the value of sales and turnover, or some combination of these measures.

However, the Bolton Report (1971) on Small Firms found that it was impossible to define an SME solely in terms of quantitative measures. A more useful approach, in their opinion, was to focus on the qualitative dimensions by defining an SME as an independent business, managed by its owner or part owners and having a small market share. Bolton, however, did adopt a number of quantitative measures for statistical purposes. The Committee recognised that size was relevant in relation to business sector and that it might be appropriate to define an SME by the number of employees in some sectors, but turnover in others.

Governments across the globe categorise firms according to numbers of full-time employees or their equivalent. The University of Cambridge (1992) study characterised an SME as firm with 10 to 199 employees. Firms with fewer than 10
employees were considered 'micro' firms. In developing countries, small and medium-sized firms tend to be defined as enterprises with 1 to 49 employees and 49 to 200 employees, respectively. The employment yardsticks differ from country to country. A small enterprise could cover 'micro' enterprises (less than 5 employees) and a medium enterprise could cover firms with 49 to 500 employees. For example, in Japan and Korea, SMEs are defined as firms with fewer than 300 employees, while China, Argentina, Colombia and other Latin American countries classify SMEs as those with fewer than 200 employees.

Many countries use capital or assets to define an SME. In the US, an SME has been defined as a firm with fewer than US$5 million in total assets (Walker and Petty, 1978; Tamari, 1980). In India, an SME is defined as having fixed assets of fewer than Rs. 6 million. Some countries use employment and other criteria, for example, the Philippines: 10-99 employees (and capital up to Pesos 5.0 million) is classed as small; 100-199 employees and Pesos 20 million as medium-sized enterprises.

In Malaysia, different definitions have been used because various Government departments or agencies have adopted different definitions for their specific purposes.

### Table 4.3: Previous Approaches to Defining a Small Firm in Malaysia

<table>
<thead>
<tr>
<th>Agency/Researcher</th>
<th>Category</th>
<th>Defined As</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chee (1985)</td>
<td>Small Firm</td>
<td>fewer than 200 full-time workers</td>
</tr>
<tr>
<td>The Industrial Co-ordination Act 1986</td>
<td>Small Firm</td>
<td>fewer than 75 full-time workers and paid up capital of less than RM2.5 million</td>
</tr>
<tr>
<td>World Bank (1984); United Nations Development Organisation (1986); Asian Development Bank (1990)</td>
<td>SME</td>
<td>Small-scale enterprise - establishment employing fewer than 50 workers; Medium-scale enterprise - between 50 and 199 workers</td>
</tr>
<tr>
<td>MITI (1997)</td>
<td>SME</td>
<td>fewer than 75 full-time workers and paid up capital of less than RM2.5 million</td>
</tr>
<tr>
<td>CGC (1998)</td>
<td>SME</td>
<td>Fewer than 150 full-time workers and shareholders' fund of up to RM2.5 million</td>
</tr>
<tr>
<td>MITI (1998)</td>
<td>SME</td>
<td>fewer than 150 full-time workers, annual sales turnover of not more than RM25 million and paid up capital of less than RM5 million</td>
</tr>
</tbody>
</table>

Source: Moha Asri, 1999

There has never been a formal, legal or clear cut-categorisation of what constitutes an
SME in Malaysia. SMEs are defined according to turnover, paid up capital or employment, or some combination of these criteria, as shown in Table 4.5.

Chee (1985), in his study of small industry in the manufacturing sector, defined SMEs as those employing fewer than 200 full-time workers. This was the generally accepted definition for many years. Nowadays, the definitions used by the Ministry of International Trade and Industry (MITI) are widely used. MITI formerly defined SMEs as those employing fewer than 75 full-time workers or having paid up capital of less than RM2.5 million (approximately £425,000).

In early 1998, MITI redefined SMEs as firms that employ fewer than 150 full-time workers or with paid up capital of less than RM5 million (approximately £850,000) and annual sales turnover of not more than RM25 million.

To complicate matters further, the CGC adopts a definition of SME based on employment, and shareholders' funds (a term which includes paid-up capital, retained profits and other reserves). What this means, in practice, is that established firms will not be eligible for CGC assistance as they build up shareholders' funds and breach the limits applied by CGC. This would not be the case if CGC used the MITI approach of defining an SME in terms of paid-up capital.

For the purposes of this study, the researcher is using the CGC database, hence the definition of an SME will be a firm with fewer than 150 full-time employees and shareholders' funds of less than RM5 million.

4.4.2 Dependent Variables

Utilisation of the NPGS

For the purpose of this study, the utilisation of the NPGS is defined as the value of loans guaranteed under the NPGS.
Effectiveness of the NPGS

The effectiveness of the NPGS is defined in relation to high levels of finance and economic additionality, and a low net cost to the Treasury.

4.4.3 Independent Variables

Characteristics of Firm

Age of Firm
The age of the firm is measured by the number of years the firm has been established up to the date of the survey.

Size of Firm
The size of the firm is measured in terms of employment, and the number of 'people presently working' is an appropriate measure of size. Even though the CGC does not have a definition for the size of the firm, the MITI definition of the size of firm will be used. Therefore, for the purpose of this study, the number of employees includes full-time and part-time employees.

Legal Structure of a Business
Since the study is concerned with SMEs, three major types of legal structure are considered, sole proprietor, partnership and private limited.

Business Activity
The CGC classifies business activity according to general business, manufacturing, and agriculture (including mining and quarrying).

Use of External Adviser in Raising Funds
An external adviser could include: relatives and friends; bankers; accountants and auditors; Chamber of Commerce; and others.
Existence of Business Plan

A business plan is defined for my research as a document which contains an analysis of a firm's current position and "charts the course and destination of a company in specific terms for the first twelve months of operations and in general terms for at least the second and third years of operations" (Knight and Knight, 1993, p.33).

Characteristics of Owner -Manager

Ethnic Group

The ethnic groups in Malaysia were categorised under Bumiputera, Chinese, Indian and other.

Training, Education and Experience of OMs

The level of training, education and experience of OMs is measured in terms of attendance on entrepreneurial and technical training courses, educational background and prior business experience. For the purpose of this study, training is defined as 'the process of acquiring the knowledge and skills related to work requirements by formal, structured or guided means' (Johnson & Gubbins, 1992, p.29).

Finance Additionality

The measurement of finance additionality is calculated at the level of the firm. The first step was to establish how much the financial institution (thereafter referred to as FI) and others were lending as part of the total finance made available to the firm. The second element was to estimate how much the FI could have lent in the absence of the NPGS, as shown in Table 4.6. The formula is as follows:

\[
\text{Estimated Finance Additionality} = \frac{\text{Total finance (Col 3)} - \text{FI (Col 4)}}{\text{NPGS loan (Col 2)}} \times 100
\]

Firm 1 has zero additionality, Firm 2 has 100 percent and Firm 3 has 50 percent additionality.
Table 4.4: The NPGS Finance Additionality (all figures: RM000)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding Package from Financial Institutions and others</th>
<th>Fls and others' maxamt</th>
<th>Est. Add Amount (£)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Fis &amp; others (Col 1)</td>
<td>NPGS loan (Col 2)</td>
<td>Total (Col 3)</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>30</td>
<td>15</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>80</td>
<td>80</td>
</tr>
</tbody>
</table>

Notes:
1. Financial institutions and others including government bodies = an estimate of the maximum amount available of credit from financial institutions and others, if the NPGS had not existed.
2. Est. Add = the estimated level of finance additionality, after taking into account what the financial institutions and others could have advanced.

Source: Boocock and Mohd Shariff, 1996

This concept of finance additionality is explored in much greater detail in Chapter 7.

**Economic Additionality**

Economic additionality will be measured in terms of additional employment, turnover and profits generated by the NPGS. The analysis will again be based at firm level. Another important element of economic additionality is its indirect impact on the wider economy. My analysis will also take account of displacement effects and/or export activity undertaken by the recipient firms. The 'dynamism' of NPGS-backed firms will be estimated using variety of measures.

4.5 **STATEMENTS OF HYPOTHESES**

Drawing upon the literature review in Chapters 2 and 3, the researcher formulated some testable hypotheses. The literature is used selectively to focus on issues of most interest to the researcher, i.e., the utilisation and effectiveness of the NPGS.

4.5.1 *Demand factors*

H1: There will be a negative relationship between the cost and the utilisation of the NPGS.

H2: There will be a negative relationship between the availability of security or collateral and the utilisation of the NPGS.
4.5.2 Supply factors

H3: There will be a positive relationship between the amount of bad debt claims processed by the CGC and the utilisation of the NPGS.

H4: There will be a positive relationship between the amount of claims paid by the CGC in relation to claims processed and the utilisation of the NPGS.

H5: There will be a positive relationship between the guidelines (quotas) imposed by BNM and the utilisation of the NPGS.

H6: There will be a positive relationship between the availability of CGC support through finance companies and the utilisation of the NPGS.

4.5.3 Characteristics of firm

H7: There will be a positive relationship between private limited company status and the utilisation of the NPGS.

H8: There will be a positive relationship between manufacturing firms and the utilisation of the NPGS.

H9: There will be a positive relationship between the size of a firm and the utilisation of the NPGS.

H10: There will be a positive relationship between the age of a firm and the utilisation of the NPGS.

H11: There will be a positive relationship between the use of external advisers for fund raising and the utilisation of the NPGS.

H12: There will be a positive relationship between the existence of a written business plan and the utilisation of the NPGS.
4.5.4 Characteristics of OM

H13: There will be a positive relationship between male OMs and the utilisation of the NPGS.

H14: There will be a positive relationship between Bumiputera OMs and the utilisation of the NPGS.

H15: There will be a positive relationship between older OMs and the utilisation of the NPGS.

H16: There will be a positive relationship between the amount of technical training undertaken by OMs and the utilisation of the NPGS.

H17: There will be a positive relationship between the amount of Entrepreneur Management Training (EMT) undertaken by OMs and the utilisation of the NPGS.

H18: There will be a positive relationship between the level of formal education of OMs and the utilisation of the NPGS.

H19: There will be a positive relationship between relevant business experience of OMs and the utilisation of the NPGS.

4.5.5 Finance Additionality

H20: There will be a positive relationship between the level of finance additionality and the effectiveness of the NPGS.

4.5.6 Economic Additionality

H21: There will be a positive relationship between the level of economic additionality and the effectiveness of the NPGS.
4.5.7 Net Cost of NPGS

H22: There will be a negative relationship between the cost of the NPGS to BNM and its effectiveness.

4.6 SUMMARY

This chapter has presented two 'conceptual frameworks' which underpin the relationships among key variables. The dependent variable in the utilisation of the NPGS is the value of loans guaranteed under the NPGS. In attempting to explain the utilisation of the NPGS, four groups of independent variables will be used: demand and supply factors, and characteristics of the firm and OM. The elements used to explore three elements of the effectiveness of the NPGS: finance additionality; economic additionality; and the net cost of the Scheme.

The Chapter then defines what is meant by an SME, and key variables included in the conceptual frameworks, and concludes with the presentation of hypotheses developed to test whether the relationships that have been theorised hold true.
CHAPTER 5
RESEARCH DESIGN AND METHODOLOGY

5.1 INTRODUCTION

The previous chapter developed theoretical frameworks to identify the key research questions and important variables, and to assist in formulating the hypotheses for my study. The next stage is to design a research methodology that constitutes the best way of data gathering, in order to test the hypotheses. This chapter will focus on the design of such a methodology. Oppenheim (1992, p.6) defined research design as:

The basic plan or strategy of the research, and the logic behind it, which will make it possible and valid to draw more general conclusions from it. Thus, the research design should tell us how our sample will be drawn, what sub-groups it must contain, what comparisons need to be measured (when and at what intervals), and how these measures will be related to external events, for example to social, medical or other interventions. Research design is concerned with making our problem researchable by setting up our study in a way that will produce specific answers to specific questions.

The importance of research design is described by Hakim (1987, p.171) as follows:

Research is in the nature of sailing off to chart unexplored seas or, more correctly, trudging off to map unexplored territories. Research design is about aiming in the right direction, getting your bearings right (from previous studies) and making sure you are adequately equipped to get there and back. Columbus set sail to find the western route to the East Indies and came across the West Indies and America instead. Research designs which fail in their original intentions are not always quite so lucky, but it helps if one is clear that the original plan made sense, can offer some reasons on why it went awry, and describes what was discovered instead.

This chapter starts by reviewing some of the research methodologies that have been used in past studies. This is followed by a description of the nature of my research, and a discussion of data collection and sample selection procedures. The design of my questionnaire and pilot study is covered in some detail, and the use of case studies to supplement the qualitative data is explained. Finally, the chapter describes the techniques that I used for data analysis and a discussion of non-response bias as it relates to my survey.
### 5.2 RESEARCH STRATEGIES

#### 5.2.1 Previous Research Methodologies

In selecting the research design for this study, the researcher reviewed the methodologies adopted by researchers in previous studies of small firms and then focused on research methodologies used to assess the utilisation and effectiveness of government-backed loan schemes.

Recent research on small firms, especially studies on small firm entrepreneurship finance, has tended to be exploratory in nature (e.g. Oakey, 1984a, 1984b; Van Auken and Carter, 1989; Burns and Walker, 1991; Austin, 1993; Peel and Wilson, 1996). For example, Oakey (1984b) investigated the effect of different capital investment funding patterns on innovation in small firms, and used chi-square and correlation to analyse the results.

Descriptive research is also prevalent (e.g. Tamari, 1980; Osaze, 1981; Dunkelberg & Cooper, 1983; Calof, 1985; Hutchinson et al., 1988; Hajjar, 1989; Jones et al., 1994; Keasey & Watson, 1994; McKillop and Hutchinson, 1994). For example, Hajjar (1989) investigated the provision of finance for small businesses with a mail questionnaire and interviews, and presented his findings using percentages only.

Other research studies have tested hypotheses to explore the nature of certain relationships or discussed the differences among groups or the independence of various factors (e.g. Bracker & Pearson, 1986; Ahmed, 1987; Bracker et al., 1988; Carter and Van Auken, 1990; Keasey and McGuinness, 1990; Hasan, 1990; McKiernan and Morris, 1994). For example, Keasey and McGuinness (1990) used published data to evaluate the returns to alternative sources of finance of new firms, and analysed the results using correlation and regression.

The studies above illustrate the wide range of survey methods available to collect primary data in research on small firms. The methods include questionnaires, interviews and observation.
While questionnaires are the most widely used method of data collection in survey research (de Vaus, 1986), field study has been adopted by some researchers (e.g. Osaze, 1981; Oakey, 1984b). Field study involves the examination of a phenomenon in a wide variety of natural settings and is essentially a snapshot of practices, situations or views at a particular point in time, undertaken using questionnaires or (structured) interviews. Several studies have also utilised the case study method (e.g. Binks et al., 1986; Ahmed, 1987; Austin et al., 1993), conducting in-depth study of firms in their natural context. The researcher may or may not have clearly defined independent and dependent variables in case study research.

The most frequent methods used to collect primary data are questionnaires and interviews, although several studies have relied solely upon published data. No studies have used participant observation or ethnography, despite the fact that this technique is acknowledged to be the only true way to study the life of a small firm (Curran and Burrows, 1986b; Stockport and Kakabadse, 1992; Holliday, 1992). Holliday (1992, p.176) stated that ethnography “provides a detailed insight into the day-to-day activities and operations of small firms” and it also “provides a means for generating better quality information and knowledge of entrepreneurship (Stockport and Kakabadse, 1992, p.188).”

My research design also took into account methodologies adopted across the globe in evaluating the utilisation and effectiveness of government-backed loan schemes. The key criteria in judging effectiveness are finance and economic additionality. As with the studies of small firm finance, the methodologies mainly utilise in-depth interviews and survey questionnaires. Three UK studies of the Loan Guarantee Scheme illustrate the most common approaches.

Robson Rhodes (1984) interviewed borrowers at their place of business. The study assessed LGS recipients in terms of capital gearing, loan repayment schedules, availability of complementary finance, the extent of OM commitment (financial or otherwise) and finance additionality. The authors also tried to ascertain any features that could distinguish between survivors and failures among LGS recipients. My study could not compile a profile of defaulting companies because of problems in information from the CGC.
NERA (1990) used interviews with borrowers and their bankers. Since economic additionality was a particular main focus of attention, the interviewers were anxious to establish the extent of additional employment, turnover and value added by LGS recipients.

Pieda (1992) used a multi-method approach, allowing the researchers to triangulate these methodologies to derive separate conclusions in solving the same problem (Gill and Johnson, 1991). Pieda used structured interviews with borrowers and lenders to study complex issues such as additionality and displacement. Postal questionnaires were also used to assess the long term impact and performance of the LGS on recipients, by examining output and employment growth as well as profitability and market penetration. Telephone discussions with key informants in financial institutions, venture capital funds and enterprise agencies also helped to gauge the success of the Scheme.

Cowling (1995) differed from the three studies above in his method of data collection. He analysed the take-up and failure rates of LGS recipients by using econometric modelling, based on secondary data obtained over the period 1981 to 1993. As explained in Chapter 3, S.3.5.2, his study focused on the adjustment of two key LGS parameters (guarantee percentage and premium paid) under changing macroeconomic conditions as measured by real GDP changes.

In Europe, Camino and Cardone (1998) also used secondary data to study the Loan Guarantee Associations (LGAs) in Spain. They developed a model for estimating the costs and implicit benefits associated with loan guarantee programmes and presented their findings simply in terms of percentages and ratios.

In Canada, Riding and Haines (1995) explore the economic impact of the Small Business Loan Act (SBLA), the degree to which guaranteed loans were incremental and the risk profile of borrowers. They carried out a questionnaire survey, followed by telephone interviews with SBLA borrowers. The data were analysed using descriptive measures and logistic regression. A more recent study by Riding and Haines (1998) assessed the effectiveness of SBLA loans and the costs of running the Programme. Using a structured questionnaire, they interviewed 682 borrowers to
Research Design & Methodology

determine the impact of the SBLA loans on revenues, profits, employment and survival. The data were analysed using descriptive and 'event history' methods.

In Malaysia, as discussed in Chapter 4, S4.3.2, two studies are relevant to my research. Kanbur et al. (1995) explored the determinants of the utilisation of the CGC's facilities, using secondary data over the period from 1984-1993. The data were analysed using an estimation model derived from the ordinary least squares (OLS) method. Another study by Boocock and Mohd Shariff (1996) used in-depth interviews to study 32 surviving CGC-backed firms. The results were presented in summary form using percentages and ratios only.

Table 5.1 is a summary of previous methodologies used in the assessment of government-backed loan schemes.
<table>
<thead>
<tr>
<th>Authors</th>
<th>Major Areas</th>
<th>Sample Population</th>
<th>Data Gathering Method</th>
<th>Data Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Robson &amp; Rhodes (1984)</td>
<td>Profile of typical LGS borrowers; finance additionality; survivors and failures; business failure within six months and twelve months; quality of the LGS proposals; the nature of banks' assessment and monitoring; reasons for failure and likely failure rate of LGS firms.</td>
<td>100 surviving firms and 25 LGS failed firms.</td>
<td>Secondary data of DTI and bank files, interviews with bankers and borrowers.</td>
<td>Percentages, Ratios.</td>
</tr>
<tr>
<td>NERA (1990)</td>
<td>Effectiveness of LGS with regard to finance and economic additionality; bank performance; defaults and small firms lending.</td>
<td>100 surviving and 25 default firms.</td>
<td>In-depth interviews.</td>
<td>Percentages, Ratios.</td>
</tr>
<tr>
<td>Riding &amp; Haines (1995)</td>
<td>Economic impact of loan guarantees, the degree to which guaranteed loans are incremental, and changes in the risk profile of borrowers</td>
<td>176 SBLA borrowers</td>
<td>Questionnaire Survey and follow-up telephone interviews</td>
<td>Percentages and logistic regression.</td>
</tr>
<tr>
<td>Boocock &amp; Mohd Shariff (1996)</td>
<td>Relationship between small firms, banks and CGC; the level of finance and economic additionality of the Old PGS</td>
<td>Pilot study on 32 surviving CGC-backed firms</td>
<td>In-depth interviews.</td>
<td>Percentages, Ratios.</td>
</tr>
<tr>
<td>Riding &amp; Haines (1998)</td>
<td>Assessment of the extent to which the benefits of the loan guarantee outweigh the costs. Investigation of which parameters best allow the goals of the programme to be accomplished.</td>
<td>682 SBLA borrowers</td>
<td>Telephone interviews</td>
<td>Percentages, Ratios.</td>
</tr>
</tbody>
</table>
The most common research strategy is in-depth interviews. Romano (1989, p.41), however, commented that:

The choice of our research methodology must not be influenced by more popular and regularly adopted scientific approaches. Rather consideration should be given to the relevance or usefulness of research and the researcher must select the most appropriate methodology to fulfil this goal.

5.2.2 Present Research Strategy

The research methodology adopted for my study involves a combination of a mail questionnaire survey, in-depth interviews to develop case studies, and interviews with key informants. These methods are now discussed in turn below.

There are three different ways in which questionnaires can be administered: telephone, mail and in-depth interviews.

Telephone interviews are best suited for asking structured questions where responses need to be obtained quickly from a geographically spread sample (Sekaran, 1992). The main disadvantage of this method is that respondents can unilaterally terminate the interview without warning or explanation by hanging up the telephone. In a developing country like Malaysia, it is very costly and time consuming to conduct telephone interviews. Furthermore, the interviewer cannot observe the non-verbal responses of the respondent. Therefore, my research will utilise the two methods discussed below.

The mail survey is best suited when a substantial amount of information is to be obtained through structured questions from a geographically dispersed sample. A mail survey was used in my study because it could cover a large geographical area in West Malaysia at a lower cost and in considerably less time than other methods.

The mail survey approach has several advantages such as:

i. The sample size can be increased compared to in-depth interviews, because the costs are reduced.
ii. In order to be representative, a sample has to be dispersed all over the country. It is therefore economical and efficient to adopt the mail survey approach in the data collection.

iii. The researcher can disguise his personality behind a well designed questionnaire, in order to avoid non-acceptance and rejection on the part of respondents during face-to-face interviews.

iv. Mail questionnaires can reduce bias; in-depth interviews might give distorted findings because of the way questions are asked (May, 1993).

However, there are some weaknesses of the mail questionnaire. According to May (1993), these include:

i. There is no possibility of probing the answer given by respondents.

ii. The need to keep questions relatively simple and straightforward is paramount, as the researcher has no control over how respondents will interpret the questions once the document has been posted.

iii. There is no control over who answers the questionnaire.

iv. The response rate may be low and it is possible that bias in the final sample cannot be checked.

When the mail survey is used appropriately, however, it may be expected to produce results ranging from almost as good, to substantially better, than those that can be obtained by more costly methods (Sudman and Bradburn, 1984).

In-depth interviews enable the interviewer to probe the experiences of interviewees. A number of my research questions focus directly on the way businesses are funded, a sensitive topic for OM's (borrowers). The interviewer might also be able to observe what actually happens in the daily activity of firms that are being studied (an element of ethnography). This approach, therefore, allows the interviewer to understand and
share the experience of problems and issues faced by the subjects. The whole process helps the interviewer to understand the rationale behind certain courses of action taken by the firms being studied (Bell, 1993, pp. 6-13). Lastly, the process of in-depth interviews allows the interviewer to concentrate on specific situations and to attempt to identify the various interactive processes at work, an outcome which could not be achieved in a mail survey (Bell, 1993, pp. 6-13).

While the in-depth interview allows the researcher to concentrate on a specific issue, it also has several limitations, including:

i. The approach requires a very long time to elicit the appropriate information for the study. Within a limited time scale, the researcher can focus on only certain aspects of the problems or issues that need to be studied in some depth (Bell, 1993, pp. 6-13). The NERA study (NERA, 1990) took about 17 months to cover 125 interviews. Another study carried out by Boocock and Mohd Shariff (1996a) used four researchers to conduct in-depth interviews, but took about three months to cover just 32 firms and their bankers in the States of Kedah and Penang, in Malaysia.

ii. The approach requires the researcher to concentrate on one group or small sample over a period of time. It is only economical if the sample is located in the same geographical area. It was too expensive, for example, for NERA to conduct a UK-wide study. Thus the study may focus on only a few firms within the vicinity of the researcher and, as a consequence, the representativeness of the sample might be questionable (Bell 1993, pp. 6-13).

In-depth interviews are essential for this study but the generalisibility of data is a potential problem. One of the preconditions for a successful in-depth interview is the willingness of the interviewee to accept the presence of the researcher in the organisation and to relay the relevant information (Bell, 1993, pp. 6-13). This precondition is especially true in Malaysia; for example, to interview the bankers, the researcher had to follow the rules laid down under the Banking and Financial Institution Act, 1989, which requires prior permission from borrowers. Also, in conducting interviews with small firms in a multi-racial and multi-lingual society.
certain OMs are notoriously sensitive about releasing financial information (Boocock and Mohd Shariff, 1996).

In-depth interviews are often used to construct case studies, an approach that was used as part of my research strategy.

Hakim (1997), commented on the use of case studies as:

...typically based on two or more methods of data collection. Whether the case study is descriptive, explanatory, or is concerned with rigorous tests of received ideas, the use of multiple sources of evidence and, very often, multiple investigators makes the case study one of the most powerful designs. The fieldwork for case studies may incorporate the analysis of administrative records and other documents, in-depth interviews, larger scale structured surveys (either personal interviews or postal surveys), participant and non-participant observation and collecting virtually any type of evidence that is relevant and available.

It can also be useful for research on policy implementation and evaluation (Hakim, 1997). My case studies developed explanatory analysis of the CGC in relation to evaluation of the NPGS.

Whilst the case study method provides detail and depth, thus maximising the validity of results, it does limit the representativeness and generalisability of the findings (Zelditch, 1971; Walton, 1973). It is accepted that one of the solutions to the generalisibility problem is to study more than one firm (Hakim, 1997; Bryman, 1988). This is supported by Sudman (1976, p.26):

Confidence in the general significance and robustness of research findings increases with the number of sites in which a survey is conducted, although the largest single gain occurs when the number of sites is increased from one to two. Similarly, confidence in the generalisability of the results of a case study design increases with the number of cases covered, with the greatest proportional gains being achieved when the number of case is increased from one to two, three or more.

Furthermore, “evidence from multiple cases is often considered more compelling, and the overall study is therefore regarded as being robust (Yin, 1984, p.48).” Previous studies of small firms suggest that multiple case studies are capable of addressing generalisability, if they are understood in theoretical rather than statistical terms (e.g. ACOST, 1990; Austin et al., 1993).
The suggestion was made above that participant observation (or the ethnography technique) generates the best quality information and knowledge of entrepreneurship (Stockport and Kakabadse, 1992). Besides the difficulty in gaining entry into the research setting (Hammersley and Atkinson, 1983), this technique is very costly and time consuming (Stockport and Kakabadse, 1992). As my study involves firms across the whole of West Malaysia, this approach would have seriously limited the collection and analysis of the data. Nevertheless, one area emphasised in participant observation was used in my research, i.e., the use of key informants for data collection.

A multiple research strategy (Burgess, 1982) or between-methods approach as described by Brannen (1992, p.32) "can serve as an exercise in clarification: in particular it can help to clarify the formulation of the research problem and the most appropriate ways in which problem may be theorised and studied." My view on the issue has been influenced by Brannen’s (1992, p.9) statement:

"Issues about the representativeness of the sample and the generalisibility of the findings are not salient: rather it is the issue of establishing a theoretical link within each case."

As mentioned in Chapter 1, the first objective of my research is to determine the utilisation of the NPGS, by relating utilisation to a number of demand and supply factors, as well as the characteristics of firms and OMs. I chose the questionnaire survey to test hypotheses because its strength lies in the ability to collect data from a large number of firms, allowing quantitative analysis in the testing of inferences and the generalisation of findings. My second objective relates to the effectiveness of the NPGS. Tackling this issue requires in-depth interviews with borrowers and their lender on which case studies can be formulated. The research is exploratory in nature. In-depth interviews allow the researcher to probe finance and economic additionality, issues which could not be assessed using the questionnaire survey. In addition the questionnaire survey and the case studies are research methods which both facilitate descriptive analysis.

As has been pointed out earlier, each of the approaches has its own strengths and weaknesses: "it is these strengths and weaknesses that lie behind the rationale for integrating them (Bryman, 1992, p.59)." Finally according to Sapsford and Jupp
Research Design & Methodology

(1996):

There is no single best way of collecting data; the method chosen depends on the nature of the research questions posed and the specific questions you want to ask respondents. The aim of all methods is to obtain valid and reliable data - true answers to questions, not distorted by the methods of collection or prone to chance fluctuation - which can be used as the basis for credible conclusions.

5.3 SAMPLING FRAME

A sampling frame is a list from which a sample can be taken and which leads ultimately to the sample of units about which information is to be obtained. Hague and Harris (1993) highlighted the following characteristics of a good sampling frame:

i. The frame should contain a list of members of the defined population.

ii. The frame should be a complete, up-to-date list of the population.

iii. No population members should be listed more than once.

iv. The list should contain information about each unit that could be used for stratifying the sample.

My study required a comprehensive list of borrowers (firms) using the New Principal Guarantee Scheme in West Malaysia. The database of the CGC was utilised to draw such a sample. A sampling frame of 36,203 borrowers, as at 30th November 1997, was available to conduct systematic random sampling. The CGC initially provided certain details for each borrower, such as reference number, date of approval of application, race, legal status (limited company, partnership, sole proprietorship), sector (general business, agriculture, mining and quarrying, manufacturing) and loan amount.

A total of 800 borrowers were selected from the reference numbers to ensure adequate representation of firms with regard to location, racial composition of OMs, legal structure, sector and loan amount. Curran and Blackburn (1994) consider published lists of any kind do not provide sufficient information to be able to construct a good sampling frame: "even when complete, such source(s) date quickly, because small enterprises are very far from a static population (Curran, 1986, p.6)."
By its nature, the small firm sector tends to be heterogeneous and difficult to track. In this instance, fifty reference numbers given by the CGC proved to be unusable: some of the addresses of the borrowers were insufficient and the names of some borrowers were repeated, having had a loan from more than one financial institution. However, the sampling frame was sufficiently robust to meet the criteria of a good sampling frame suggested by Hague and Harris (1993) and Roscoe (1975):

i. Sample sizes larger than 30 and less than 500 are appropriate for most research studies. This criterion has been satisfied for my sample size of 92 borrowers. This is neither too small nor too large for the study of SMEs.

ii. Where samples are broken into sub-samples (Bumiputera/non-Bumiputera, manufacturing/non-manufacturing, etc.), a minimum size of 30 for each category is necessary. In analysing the findings of my questionnaire survey, the sample size of 92 borrowers was broken into sub-samples, for example, to investigate utilisation by Bumiputera and non-Bumiputera borrowers. In testing most hypotheses, the sub-samples met the minimum size criterion.

iii. In multivariate research (including multiple regression analysis), the sample size should be several times (preferably 10 times or more) as large as the number of variables in the study. There were many variables in my study, and a larger sample size was required to carry out multivariate research. I therefore, chose not to do so. Furthermore, multivariate research was unsuitable to capture certain elements of effectiveness of the NPFS, such as finance and economic additionality and the net cost to the Treasury.

Table 5.2 below shows the number of borrowers in the population and survey sample broken down by States in West Malaysia.
Table 5.2: Number of firms in the population and survey sample

<table>
<thead>
<tr>
<th>States</th>
<th>Population</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of firms</td>
<td>%</td>
</tr>
<tr>
<td>Federal Territory</td>
<td>7,811</td>
<td>22</td>
</tr>
<tr>
<td>Johore</td>
<td>3,969</td>
<td>11</td>
</tr>
<tr>
<td>Kedah</td>
<td>2,633</td>
<td>7</td>
</tr>
<tr>
<td>Kelantan</td>
<td>1,182</td>
<td>3</td>
</tr>
<tr>
<td>Malacca</td>
<td>1,467</td>
<td>4</td>
</tr>
<tr>
<td>Negeri Sembilan</td>
<td>1,538</td>
<td>4</td>
</tr>
<tr>
<td>Pahang</td>
<td>2,312</td>
<td>6</td>
</tr>
<tr>
<td>Penang</td>
<td>2,935</td>
<td>8</td>
</tr>
<tr>
<td>Perak</td>
<td>4,597</td>
<td>13</td>
</tr>
<tr>
<td>Perlis</td>
<td>426</td>
<td>1</td>
</tr>
<tr>
<td>Selangor</td>
<td>5,990</td>
<td>17</td>
</tr>
<tr>
<td>Terengganu</td>
<td>1,343</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>36,203</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

5.4 QUESTIONNAIRE DESIGN

The overall aim was to develop a questionnaire to address the research objectives effectively, yet one which was as ‘viewer friendly’ as possible, to avoid imposing too much time upon busy borrowers. A number of questions used in this questionnaire were adopted from previous studies, especially the NERA (1990) and Pieda (1992) studies on the LGS. Other questions, however, were developed specifically to meet the needs of this research. A copy of the questionnaire used during the main survey is presented in Appendix 5.1.

According to Berdie et al. (1986), the number and quality of responses is positively correlated with the format and the layout of the questionnaire. Several steps were taken to ensure a satisfactory response rate. Following the suggestion of Dillman (1978) and Sudman & Bradburn (1982), a booklet type questionnaire was used. Sudman & Bradburn (1982) listed three reasons why the use of the booklet format in questionnaires is desirable:

i. It prevents pages from being lost or misplaced.

ii A booklet makes it easier for the respondent to turn the pages.

iv. A booklet looks more professional and is easier to follow.

The questionnaire was printed on both sides of the pages to reduce mailing costs and to conserve paper. The questions were deliberately structured for ease of answering.
The questionnaire opened with salient and non-sensitive/non-threatening questions (Dillman, 1978; Sudman and Bradburn, 1982). Sensitive/threatening questions were asked towards the end of the questionnaire. The format of the questions was clear and consistent with instructions given throughout the questionnaire. For example, for questions which required only one response, the respondent was asked to circle the appropriate answer, while for multiple response questions, the respondent was asked to tick all relevant answers. Separate instructions were given for questions using a 5-point Likert scale. Space was provided at the end of the questionnaire for respondents to make comments; since this request was optional, it should not have been perceived as threatening (Sudman & Bradburn, 1982).

The purpose of the questionnaire was basically to elicit two different types of information: first, descriptive data on characteristics of the borrowers and their firms; second, data on the utilisation and additionality of the NPGS loan. After analysing the information and data, generalisations could then take place from the sample of respondents to the population as a whole.

5.4.1 Contents of the Questionnaire

The questionnaire was based upon the literature survey and it incorporated all the variables discussed in Chapter Four. Even though the variables were discussed in S4.4.4, the information is briefly repeated here as the choice of variables forms a key element of my thesis.

**Background of firm and OM/owner manager (Questions 1 - 8)**

*Legal status*

Since the study is aimed at SMEs, the respondents were required to state the legal status of their firm (sole proprietorship, partnership or private limited company).

*Age of firm*

The age of the firm is measured by its number of years in existence prior to the survey.
Business activity
The respondents were required to indicate the type of business activity (general business, manufacturing, agriculture, or mining and quarrying).

Size of firm
The size of the firm is based on the number of people working full-time and part-time, including the owner, and shareholders funds of less than RM5 million.

Gender of the OM
The gender of the OM was sought.

Ethnic group of the OM
The respondents were required to indicate whether they were Bumiputera, Chinese, Indian or another ethnic group.

Age of the OM
The respondents were required to indicate their age, using 10-year bands except for the extremes of ‘below 20’ and ‘above 60’.

Highest academic qualification
The respondents were asked whether their highest academic qualification was: primary school, Lower Certificate of Education, Malaysian Certificate of Education, Higher School Certificate, diploma, degree in science/technical subject, degree in business and/or management, or other qualification.

Application for Loan Backed by New Principal Guarantee Scheme (Questions 9-13, 16-20, 23, 24)

Establishment of Business
The respondents were required to indicate whether their business was new or was already established at the time of the NPGS application.
Use of External Advisers in Raising Funds

The respondents were asked to state whether they used external advisers in raising funds:

- Relatives/Friends
- Bank Manager
- Accountant/Auditor
- Chamber of Commerce
- Other

Experience and Training

The respondents were required to state their level of:

- Experience in running a small business
- Entrepreneur/management training
- Technical training

Business Plan

The respondents were asked whether they had prepared a business plan

Elements of the Package

The respondents were asked to provide details of the financial package of which the NPGS loan was a part; and given the choice of:

- NPGS loan
- Owners equity
- Third party equity
- Other bank loan
- Bank overdraft
- MARA loan
- Other
Use of Money

The respondents were required to state how they used the money raised through the NPGS:

- Working capital
- Purchase of property
- Purchase of plant and machinery
- Other property costs
- Product development
- Other

Acceptance of the NPGS loan

The respondents were required, based on a 5-point Likert scale, to answer a series of questions on why they chose the NPGS:

- Rate of interest was lower
- No need to have collateral or security
- Easy to apply through finance companies
- Easy to apply through commercial banks
- No alternative source of finance
- Low repayment terms of NPGS loans
- Other

Security/guarantees

The respondents were asked to indicate whether or not they had to provide security or personal guarantees in order to obtain the NPGS loan:

- None
- Personal guarantee/other guarantors
- Mortgage on property
- Stock Exchange securities
- Fixed deposit
- Other
**Finance Additionality (Questions 21 and 34)**

**Raising of finance**
The respondents were asked to indicate whether they would have been able to raise the same amount of finance if the NPGS had not been available:

- Yes, from the same source without delay
- Yes, from alternative sources without delay
- Yes, from alternative sources with a delay
- No, I would have raised less
- No, I could not have raised the finance

**Importance of the NPGS loan**
The respondents were asked to state the importance of the NPGS loan to their firms:

- Vital
- Very important
- Important
- Unimportant

**Economic Additionality (Questions 22, 25 - 33)**

**Impact on the development of the business**
The respondents were asked to state whether the absence of the NPGS loan would have had any impact on the development of their business.

- No, business would have developed as it did
- Yes, development of business would have been slower
- Yes, business would not have developed as much as it has
- Yes, business would not have survived


**Business performance against forecasts**

The respondents were asked how their business had performed against the anticipated levels of turnover, profit and employment in terms of:

- Exceeded
- Achieved
- Under-achieved

**Annual turnover, net profit margin before tax and employment**

The respondents were asked to provide approximate figures for annual turnover, net profit margin before tax and employment, prior to using the NPGS-backed funds.

**Level of annual turnover, net profit margin before tax and employment**

The respondents were then asked to state the impact of the NPGS-backed funds on their level of annual turnover, and net profit margin before tax and employment by stating current figures for these three items.

**New business**

The respondents were asked to state the proportion of new business gained from:

- Within their state
- Elsewhere in Malaysia
- Export business

**Increased sales**

The respondents were asked to indicate the proportion of increased sales won from:

- Competitors located in their state
- Other firms in Malaysia
- Overseas firms

### 5.4.2 Pilot Study Prior to Questionnaire Distribution

Oppenheim (1992, p.47) stated that:
Questionnaires do not emerge fully-fledged; they have to be created or adapted, fashioned and developed to maturity after many abortive test flights. In fact, every aspect of a survey has to be tried out beforehand to make sure that it works as intended.

Dillman (1978) suggested that a questionnaire should be pre-tested by three different groups: colleagues; potential users of the data; and SMEs drawn from the sample. This process was followed in my research.

As mentioned above, the questions in this document were mainly adopted from previous studies, notably NERA (1990) and Pieda (1992). The survey instrument was pre-tested on three lecturers in Loughborough University Business School and two research students. These individuals provided constructive comments, notably on the layout and sequence of questions in the questionnaire, and the contents of the covering letter.

In addition, certain questions had to be reformulated to conform to the requirement for the data to be analysed by the Statistical Package for the Social Sciences (SPSS).

After the questionnaire had been pre-tested on the three groups, it was revised on the basis of the feedback received. A full pilot test was then conducted by sending the questionnaire to 15 respondents drawn from the sample frame. The questionnaire is in English, but was also translated into two other languages (Bahasa Malaysia and Mandarin), to reflect a multi-cultural, multi-lingual society (Appendices 5.2 and 5.3). Considerable care was taken to choose the correct language for each respondent. A total of five completed pilot questionnaires (33 percent) were returned, a response rate which is reasonable for SMEs in Malaysia. The Wahab (1996) pilot study received a response rate of only 22 percent. The final version of the questionnaire took account of the borrowers' comments.

5.4.3 Data Collection

The final questionnaires were sent out with a personalised cover letter addressed to the manager/owner of the firm, and an endorsement from the Assistant General Manager of the CGC asking for their co-operation. A copy of the cover letter is reproduced in Appendix 5.4. Three weeks after the questionnaires were posted, the
researcher contacted non-respondents by mail, seeking their co-operation in returning the completed questionnaire. A total of 92 usable questionnaires were returned, 11.5 percent of the 800 despatched. The CGC database contained the addresses of 40 borrowers who could not be traced; in addition, three borrowers failed to answer most of the questions (even though reminder letters were sent to them). The remainder of the questionnaires (665 in total) were not returned, illustrating the difficulty in getting full co-operation from the borrowers. Firms were probably reluctant to answer questions on turnover and profits (Boocock and Mohd Shariff, 1996c).

Table 5.3 shows the composition of the survey sample and the sample collected according to: State; race of borrower; business sector; and legal structure of the business. The profile of the sample collected was not much different from the survey sample derived from the population (Appendix 5.5). The low representation of firms in certain States, for example, Kelantan, Negeri Sembilan and Pahang, should not lead to sampling bias, because other States have the same characteristics as the underrepresented States in terms of the business profile and legal structure of the businesses. Evidence from previous studies has suggested that regional and locational factors are rarely important in studying SMEs (Mahmud, 1981; Hakim, 1989; Storey et al., 1989; Keasey & Watson, 1994).

<table>
<thead>
<tr>
<th>States</th>
<th>Survey Sample</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of firms</td>
<td>%</td>
</tr>
<tr>
<td>Federal Territory</td>
<td>176</td>
<td>22</td>
</tr>
<tr>
<td>Johore</td>
<td>88</td>
<td>11</td>
</tr>
<tr>
<td>Kedah</td>
<td>56</td>
<td>7</td>
</tr>
<tr>
<td>Kelantan</td>
<td>24</td>
<td>3</td>
</tr>
<tr>
<td>Malacca</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>Negeri Sembilan</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td>Perlis</td>
<td>48</td>
<td>6</td>
</tr>
<tr>
<td>Penang</td>
<td>64</td>
<td>8</td>
</tr>
<tr>
<td>Perak</td>
<td>104</td>
<td>13</td>
</tr>
<tr>
<td>Perlis</td>
<td>8</td>
<td>1</td>
</tr>
<tr>
<td>Selangor</td>
<td>136</td>
<td>17</td>
</tr>
<tr>
<td>Terengganu</td>
<td>32</td>
<td>4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>800</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
### Racial Composition

<table>
<thead>
<tr>
<th>Racial Composition</th>
<th>Survey Sample</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Bumiputera</td>
<td>343</td>
<td>42.9</td>
</tr>
<tr>
<td>Chinese</td>
<td>377</td>
<td>47.1</td>
</tr>
<tr>
<td>Indian</td>
<td>80</td>
<td>10.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### Business Sector

<table>
<thead>
<tr>
<th>Business Sector</th>
<th>Survey Sample</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Agriculture etc</td>
<td>64</td>
<td>8.0</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>296</td>
<td>37.0</td>
</tr>
<tr>
<td>Gen Business</td>
<td>440</td>
<td>55.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100.0</td>
</tr>
</tbody>
</table>

### Constitution

<table>
<thead>
<tr>
<th>Constitution</th>
<th>Survey Sample</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Private Limited Co</td>
<td>455</td>
<td>42.9</td>
</tr>
<tr>
<td>Partnership</td>
<td>169</td>
<td>21.1</td>
</tr>
<tr>
<td>Sole Proprietorship</td>
<td>176</td>
<td>22.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>800</td>
<td>100.0</td>
</tr>
</tbody>
</table>

#### 5.4.4 Non Response Bias

Oppenheim (1992) emphasised that non-response bias will occur in mail surveys, despite increasing sophistication in the approaches to respondents. Diamontopoulous and Schlegelmich (1996) confirmed non-response as the most serious problem in mail questionnaires; this has implications for both the quantity and quality of the data obtained. Non-response bias arises when the researcher fails to obtain information from a sufficiently large portion of the population owing to, for example, the inability of recipients to respond to questionnaires. Two strategies suggested by Diamontopoulous and Schlegelmich (1996) for counteracting non-response are:

i. Make some allowance for non-response by estimating non-response bias or by sampling non-respondents.

ii. Try to minimise the non-response at the outset through careful design and execution of the survey.
Despite my efforts to follow the advice of Diamantopoulos and Schlegelmich and to guard against non-response bias, the response rate of 11.5 percent meant that it had to be tackled in my study. The missing responses could have affected my conclusions about the key variables.

After the data has been collected, another method to handle non-response bias is to estimate its effects on the key variables and conclusions. This approach is critical when the researcher is faced with time and financial constraints, and as efforts to increase the rate of return become ever more costly and time consuming.

Amstrong and Overton (1982) proposed a time trend extrapolation method for estimating the effects of non-response bias. They assumed that sample respondents who respond less readily (either by answering later or by requiring more prodding before answering) have similar characteristics to non-respondents. The characteristics of groups which respond readily/slowly are compared and extrapolated. If the groups do not differ in their characteristics, it is assumed that there are no systematic differences in their responses, suggesting that non-response bias is not a significant factor. I adopted this method to analyse non-response bias. The respondents were divided into two groups comprising the first 30 and the last 30 responses received. The intermediate respondents were excluded to demarcate early and late respondents clearly. The groups were then compared in terms of supply and demand factors, and the characteristics of firms and OMs.

Using a 2-tailed t-test, the results in Table 5.4 show that no variables tested produced significant t-test differences (at the 5 percent level of significance) between early and late respondents. This suggests that biases (in terms of supply and demand factors, the characteristics of firms and OMs) do exert an influence, for example, the gender of the OMs affected the responses. Overall, however, the biases were not a significant factor which could affect the findings.
Table 5.4: Non-response bias between early and late respondents

<table>
<thead>
<tr>
<th>Major variables</th>
<th>Degree of freedom</th>
<th>2-tailed significance</th>
<th>Significant at 95% level?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>59</td>
<td>0.682</td>
<td>Not significant</td>
</tr>
<tr>
<td>Availability of security</td>
<td>59</td>
<td>0.572</td>
<td>Not significant</td>
</tr>
<tr>
<td>The legal structure of a business</td>
<td>59</td>
<td>0.737</td>
<td>Not significant</td>
</tr>
<tr>
<td>Applications from manufacturing firms</td>
<td>59</td>
<td>0.766</td>
<td>Not significant</td>
</tr>
<tr>
<td>Size of firm</td>
<td>59</td>
<td>0.099</td>
<td>Not significant</td>
</tr>
<tr>
<td>Age of firm</td>
<td>59</td>
<td>0.953</td>
<td>Not significant</td>
</tr>
<tr>
<td>Use of external advisers</td>
<td>59</td>
<td>0.841</td>
<td>Not significant</td>
</tr>
<tr>
<td>Written business plan</td>
<td>59</td>
<td>0.253</td>
<td>Not significant</td>
</tr>
<tr>
<td>Male OMs</td>
<td>59</td>
<td>0.422</td>
<td>Not significant</td>
</tr>
<tr>
<td>Bumiputera OMs</td>
<td>59</td>
<td>0.522</td>
<td>Not significant</td>
</tr>
<tr>
<td>Age of OM</td>
<td>59</td>
<td>0.933</td>
<td>Not significant</td>
</tr>
<tr>
<td>Technical training undertaken by OM</td>
<td>59</td>
<td>0.378</td>
<td>Not significant</td>
</tr>
<tr>
<td>Business management training undertaken by OM</td>
<td>59</td>
<td>0.056</td>
<td>Not significant</td>
</tr>
<tr>
<td>Level of education of OMs</td>
<td>59</td>
<td>0.686</td>
<td>Not significant</td>
</tr>
<tr>
<td>Previous business experience of OMs</td>
<td>58</td>
<td>1.000</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

5.5 CASE STUDIES

The case study approach was used to generate more information on the process of applying for NPGS loans and the impact of NPGS loans on the performance of the recipient firms. As mentioned in Section 5.2.2., the case study approach relies heavily on in-depth interviews with borrowers and their financial institutions. The case study approach captures reality in considerably greater detail than is possible with a questionnaire survey. Whilst my questionnaire yielded important information on relationships among variables, the data gave a limited perspective on the dynamics of the firms. The case study analysis injected an element of dynamism into the empirical work. It was also important to gather information on the contribution of CGC-backed firms to the economy as a whole and to question the firms, their financial institutions and key informants about the effectiveness of the NPGS. Analysis of the case studies shed important light on all these areas.

The firms chosen for the case studies were selected from the sampling frame of the survey respondents. The firms selected were from those sectors/subsectors associated with the manufacture of high technology or resource-based products. These sectors were thought likely to generate a higher level of economic additionality.
The discussion in S.5.2.2 on generalisability and validity problems implied that the ideal number of cases should be more than one. Hakim (1997) suggested that:

As the number of cases increases to substantial figures, the logic of statistical inference begins to complement, and even replace, the logic of analytical inference from a small number of carefully selected cases.

A checklist for borrowers and their lenders used in Boocock and Mohd Shariff (1996) was adapted and modified for the in-depth interviews. However, it was clear that this interview checklist was too long. Some questions could be omitted because they had already been asked in the questionnaire. In piloting the interview survey instrument, one lecturer suggested the use of 'prompt' questions would enable the researcher to extract more information from the interviewees.

To save time and money, two pilot interviews were conducted in the UK on two foreign postgraduate business students with previous experience of working in financial institutions in Malaysia. Based on feedback from these pilot interviews, the number of questions was reduced still further. Questions that were considered less pertinent were omitted. Final interview checklists for borrowers and lenders are shown in Appendices 5.6 and 5.7 respectively.

Twenty firms were contacted initially by letter, enclosing a list of issues to be discussed and asking for agreement to participate in the interview programme (refer to Appendices 5.8 and 5.9). Three firms indicated that they were unwilling to participate and two firms did not reply. Fifteen firms agreed to participate and follow-up telephone calls were made to confirm the date and time for the interviews. Their financial institutions were also invited to participate in the interviews, a vital element in measuring finance additionality.

The interview checklists were semi-structured in nature and, on average, each interview lasted about fifty minutes. Some of the OMs agreed to the interview being recorded, on the understanding that the information was treated as confidential. Apart from exploring the issues raised in their mail questionnaire responses, the semi-structured interviews were also used to probe the following issues in more detail.
A. Application for NPGS loan
- Purpose and amount of loan
- Decision to use the NPGS
- Total package of finance of which the NPGS loan formed a part
- Other potential lenders approached

B. Security and/or Guarantees Sought by the Lenders

C. Impact of NPGS loan
- Performance of the firm since obtaining the NPGS loan
- Important investment projects since the NPGS loan was obtained.

The interviews with the borrowers' financial institutions again used a semi-structured checklist of questions. The majority of the financial institutions agreed that the conversations could be recorded. The interviewees were generally experienced lenders with considerable experience of dealing with CGC applications. The interviews usually lasted more than an hour, often because of interruptions by telephone calls from customers.

I also benefited from a short attachment with the CGC, enabling me to conduct interviews with key informants, including the Chief Executive Officer (CEO). These interviews concentrated on critical issues, for example, the number of claims processed and paid, the penalties (quotas) imposed by BNM, and future of the NPGS. A considerable amount of secondary data on the NPGS was also collected from CGC.

The case studies are discussed in Chapter 7.

5.6 STATISTICAL ANALYSIS

5.6.1 Measurement of Variables

Variables such as the age of the firm and OM are usually known as interval/ratio variables since the difference between the categories is identical. However, when
these variables are grouped into categories, they become ordinal variables (e.g. Siegal & Castellan, 1988; Bryman & Cramer, 1990, p.65). Other important variables in this study are grouped into two-category variables, such as 'have/not have any experience': 'had/did not have a written business plan'; and 'have attended OM training/did not attend OM training'. These dichotomous variables are usually known as ordinal variables (Siegal & Castellan, 1988).

5.6.2 Bivariate Analysis: Measures of Correlation and Test of Significance

The research tried to establish whether the relationships or correlations postulated in the hypotheses hold true. Correlation indicates both the strength and direction of the relationship between a pair of variables. Two types of measure can be distinguished; measures of linear correlation using interval variables and measures of rank correlation using ordinal variables (Bryman and Cramer, 1997, p.172). When variables are interval/ratio, the most common measure is Pearson's Product Moment Correlation Coefficient, known as Pearson's $r$. It is a matter of some debate whether Pearson's $r$ can be used for ordinal variables (for example: O'Brien, 1979). However, two prominent methods for examining the relationship between pairs of ordinal variables are available - Spearman's rho and Kendall's tau. Most research findings are based on the former. The main problem with the values of Kendall's tau is that "they have no obvious probabilistic interpretation, and consequently the meaning of a value of 0.7 (tau a) or 0.6 (tau b), say, cannot be expressed in words in terms of probabilities or error in prediction (Everitt, 1977, p.63)."

If pairs of variables are of different types - for example nominal or ordinal scale independent variables and an interval dependent variable, the Eta correlation coefficient (thereafter referred to as the Eta coefficient) warrants consideration (Bryman and Cramer, 1997, p.186). Since most of the variables in this study were nominal or ordinal scale independent variables, the Eta coefficient was frequently used. The Eta coefficient only varies between 0 and positive 1 and, therefore, can only measure positive correlation between two variables – this was therefore, appropriate for my study.

To examine the means of three or more groups of scores (such as business activity) a
one-way ANOVA (hereafter referred to as ANOVA) was used. As Huck and Cormier (1996) explain, "an ANOVA permits the researcher to use the data in the samples for the purpose of making a single inferential statement concerning the means of the study's populations."

The first step in an ANOVA is to test the homogeneity of the variance in the sample. The basic assumption of this approach is that each group obtained from the scores is an independent random sample from the normal population and the variance of the groups are equal in the population (Norusis, 1993). The Levene test was used to determine the homogeneity of the variance in the population. If the significance level is less than 0.05, the null hypothesis that the variances in the population are equal should be rejected.

The second step in ANOVA is to determine whether or not a significant difference exists between the means of the groups. In an ANOVA, the variability of the observation is divided into two parts: the within group variability, and variability among the group means. If the null hypothesis is true, the population means for all the groups under observation are equal; if more than one of the observed sample means are significantly different, there is sufficient evidence to reject the null hypothesis.

The statistical test for the null hypothesis in an ANOVA is based on the $F$ values calculated from the ratio of the between group means square to the within group means square:

$$F \text{ ratio} = \frac{\text{Between group means square}}{\text{Within group means square}}$$

In order for the null hypothesis to be true, the $F$ ratio should be approximately equal to 1 and if the observed significant level is greater than 0.05 (i.e., 0.5) the null hypotheses cannot be rejected.

Norusis (1993) commented that a significant $F$ value indicates only that the population means are probably not equal, but it does not reveal which pair of groups is unequal. To further determine whether or not to reject the null hypothesis that all population means are equal, my study used Fisher's LSD (hereafter referred to as
LSD) multiple comparison procedure. Data for this test were provided by an ANOVA subprogramme of SPSS.

An ANOVA can also be conducted if comparing two means (for example, gender) by using an $F$ ratio or $t$-test. According to Huck and Cormier (1996), "the $F$-test conclusion regarding the null hypothesis will always be identical to the conclusion reached by a $t$-test. Hence, it really doesn’t matter whether researchers compare their two means using a $t$-test or $F$-test."

Figure 5.1 below shows the statistical techniques adopted in my research for hypothesis testing involving bivariate analysis. For Hypotheses 1 to 3, Spearman’s correlation coefficient was used because these hypotheses did not meet the linearity criterion specified for parametric tests; the variables were monotonic (that is, the value of one variable remained the same or changed in a fixed direction with increases in the other variable). ANOVA and/or Eta coefficients were used to test Hypotheses 4 to 16, because the relationship between independent and dependent variables was non-monotonic.

Figure 5.1: Simplified Decision Tree for Tests of Association or Relationship Between Two Variables

Adapted and Modified from Fife-Schaw (1995)
5.6.3 Factor Analysis

As mentioned in Chapter 4, S4.2, each independent factor is considered as distinct in analysing the utilisation of NPGS loans. However, some of these factors may be correlated with each other and some underlying dimensions (known as common factors) may be related to these variables. In an attempt to examine whether the demand and supply factors, and the characteristics of firms and the OMs are affected with these dimensions, factor analysis was used.

Daimantopoulos and Schlegelmilch (1997), defined factor analysis as "a range of techniques the aims of which are to describe a larger number of (metric) variables by means of a smaller set of composite variables (so-called factors) and to aid the substantive interpretation of the data." Therefore, the main objective of factor analysis is to reduce a wide-ranging number of variables into more manageable groups of factors (Lechman, 1989). Factor loadings utilised from factor analysis are used to indicate the correlation between each attribute and each score. The higher the factor loading, the more significant that attribute is in interpreting the factor matrix (Hair et al., 1995).

A number of requirements have to be met in utilising factor analysis, principally the variables under study have to be at least of interval scale (Sproull, 1988). In my study, however, most of the variables are ordinal. Kim (1975) found that ordinal variables can be treated as interval scale if the distortion introduced by assigning numeric values to ordinal categories is not very substantial. This is supported by Kim and Mueller (1987), who indicated that many ordinal variables might be given numeric values without distorting their underlying properties. In my study, the distortion effect is not significant as a result of assigning numeric values to ordinal data. My findings, therefore, pass all the tests put forward in this paragraph.

To determine whether to proceed with factor analysis, the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy test and the Bartlett test of sphericity were used. A small value on the KMO test indicates that factor analysis may not be a good option; a KMO which measures more than 0.5 should be considered appropriate to proceed in factor analysis (Kinnear and Gray, 1994). Norusis (1992) quoted Kaiser
(1974) in suggesting that KMO measures in the 0.90s are considered as "marvellous", in the 0.80s as "meritorious", in the 0.70s as "middling", in the 0.60s as "mediocre", in the 0.50s as "miserable", and below 0.50s as "unacceptable" for the purpose of factor analysis.

The Bartlett test of sphericity, and its significance level, indicate a relationship among variables in an identity matrix and determine whether factor analysis is an appropriate technique to use. If the Bartlett test value is significant (i.e., its associated probability is greater than 0.05), there is a danger that the correlation matrix is an identity matrix (where the diagonal elements are 1 and the off diagonal elements are 0) and is therefore unsuitable for further analysis (Kinnear and Gray, 1994). What is required is that the value of sphericity is large and the associated significance is small, that is, less than 0.05. When these criteria are present, further use of factor analysis is suitable. The results of the factor analysis conducted for my study will be discussed in Chapter 6.

5.7 SUMMARY

The Chapter discussed the importance of an appropriate research design in order to test the hypotheses. The researcher reviewed the research strategies employed in previous studies. For this study, the researcher chose the combination of mail survey, in-depth interviews and case studies, and interviews with key informants. A mail survey was chosen because of its ability to collect data from a large number of firms, allowing quantitative analysis in the testing of inferences and generalisation of the findings on the utilisation of the NPGS. In-depth interviews with borrowers and lenders were chosen because they allowed the researcher to explore the degree of finance and economic additionality, issues which could not be assessed using the questionnaire survey. On the basis of these interviews, and discussions with key informants, fifteen case studies were compiled.

The questionnaire sample was derived from the database of the CGC. A sampling frame was available to conduct systematic random sampling based on States, race, legal status and sector. The questionnaire survey was designed to elicit information on
the utilisation of the NPGS. A number of questions from previous studies were reviewed critically and adopted for this study. In order to determine the potential effectiveness of the mail survey and to evaluate whether it met the objectives of the study, a pre-test and pilot study of the questionnaire was conducted before the full-scale study was conducted. Measures were implemented for the despatch of the mail survey to ensure a satisfactory response rate.

In order to elicit more information on the impact of the NPGS and its effectiveness, the case study method was used. Using the survey respondents as a sampling frame, fifteen firms agreed to participate in this element of the research programme.

The data collected through the mail survey have been analysed using bivariate analysis in order to establish the relationships between variables. Factor analysis was used to reduce the wide ranging number of variables into more manageable groups.

This Chapter has focused on the design of the research methodology in order to gather data in the best way and to test the hypotheses. The next Chapter will present the results of the questionnaire survey and analyse the findings.

Notes

1. Malaysia consists of West Malaysia and East Malaysia. West Malaysia has thirteen states excluding the Federal Territory of Kuala Lumpur. East Malaysia has two states of Sabah and Sarawak.
CHAPTER 6

THE NPGS QUESTIONNAIRE SURVEY: RESULTS AND ANALYSIS

6.1 INTRODUCTION

This chapter analyses the factors influencing the utilisation of the NPGS, based on data gathered from the questionnaire survey. Section 6.2 explains how the variables were prepared for analysis. Data editing and cleaning was undertaken on the raw data at the preparatory stage of the data analysis, in order to eliminate errors and inconsistencies. The output generated from the ‘Frequencies’ procedure of SPSS for MS Windows was used in the cleaning process.

The next Section (6.3) describes the sample data, especially the characteristics of the firms and OMs that participated in the study. Diamantopoulos and Schlegelmilch (1997) commented on the importance of descriptive analysis:

Data description is a typical first step in any data analysis project. In addition to being an important, self-standing activity when a descriptive focus characterises the analysis objectives, descriptive analysis provides a very useful initial examination of the data, even when the ultimate concern of the investigator is inferential in nature (i.e. involving estimation and/or hypothesis testing).

Section 6.4 uses bivariate analysis to test the hypotheses generated in Chapter 4. Sections 6.5 and 6.6 present exploratory factor analysis and a summary of the chapter respectively.

6.2 PREPARATION OF VARIABLES FOR DATA ANALYSIS

As discussed in Chapter 4, S4.2, it is hypothesised that the utilisation of NPGS-backed facilities depends upon four independent groups of factors or variables. The individual variables have to be adjusted to facilitate the analysis, in order to present
the results in a form that can be easily understood. As Diamantopoulos and Schlegelmilch (1997, p49) confirm “variable transformations are often necessary to carry out a particular analysis and/or facilitate data reporting.” The variables transformed into new values have been maintained in their original form for future analysis. Before the transformations were made, the raw data were edited and cleaned. The next sub-section (6.2.1) explains how certain independent variables were adjusted before statistical analysis could be carried out.

6.2.1 Independent Variables

The demand and supply variables such as 'cost of loan', 'amount of security or collateral' and 'support from finance companies' were measured using interval scales ranging from strongly disagree to strongly agree. Such variables were relatively straightforward to prepare for analysis. However, modifications had to be made to certain variables relating to the characteristics of the firm and OM. The variables 'age of firm', 'business activity', 'ethnic group', 'age group', 'technical training', 'academic qualification', and 'use of external adviser for fund raising' had to be adjusted.

The variable 'age of firm' was originally collected using a single question based on an interval scale. This scale was converted to an ordinal scale by grouping the age of firm (originally stated in terms of years of establishment) into '4 years and below', '5 to 9 years', '10 to 14 years', and '15 years and above'. The conversion into ordinal scale enables the researcher to analyse the means of the group using ANOVA, as discussed in Chapter 5, S5.6.2. Business activity (formerly grouped as 'general business', 'manufacturing' and 'agriculture') was re-categorised as 'manufacturing' and 'non-manufacturing'. This helps the researcher to focus on the relationship between manufacturing firms and the utilisation of the NPGS.

The ethnic group of the OM (originally grouped as 'Bumiputera', 'Chinese' and 'Indian') was re-classified as 'Bumiputera' and 'Non-Bumiputera' to concentrate on the relationship between Bumiputera OMs and the utilisation of the NPGS. Technical Training (originally classified as 'CIAST', 'FRIM', 'MARDI', 'MIMOS', 'YTC', 'ITI' and 'others') was transformed into 'some training' and 'no training', to utilise ANOVA. The academic qualification variable was rationalised to 'junior or high school
certificate', 'college diploma' and 'university degree' (formerly 'primary school', 'Lower Certificate of Education', 'Malaysian Certificate of Education', 'Higher School Certificate', 'Diploma', 'Degree or Equivalent-Science/Technical' and 'Degree or Equivalent-Business/Management'). In exploring the relationship between the level of education and the utilisation of the NPGS, it was much easier to work with three variables which represent the whole strata of education of the OM from primary school to university level.

The variable on the use of 'external adviser for fund raising' was adjusted to 'none', 'relatives/ friends', 'bank managers', 'accountants and chambers of commerce', and 'bank managers and relatives/friends' (originally grouped as 'none', 'relatives/ friends', 'bank managers', 'accountants/auditors', 'chambers of commerce' and 'others'). This variable was adjusted because some of the original alternatives, for example, 'auditors and others' were rarely used by respondents. The external adviser variable was then tested using ANOVA to analyse the group means. In order to gather additional information about this variable, an additional variable had to be created. The external adviser variable was coded as 'used' and 'did not use'. The new variable is used for descriptive purposes only and not for testing the hypothesis.

Other variables of interest for example 'gender of OM' (male or female) and 'existence of business plan' (yes or no) were relatively straightforward to analyse, since the responses could be divided easily into categories.

6.2.2 Dependent Variable

The preparation of the dependent variable (utilisation of the NPGS) was relatively straightforward, as the respondents were asked to indicate the value of loans guaranteed under the NPGS. The average value of NPGS loans for the firms in my sample was RM501,000, whereas the average value for the population was RM239,000. One firm had a loan of RM5 million and this amount might have exerted an undue influence on the analysis. To minimise the potential distortion of this large loan, this value would have been recorded as a missing value from the calculation if it was found to be problematic. However, the large loan did not influence my findings unduly, hence the total value of NPGS loans in the sample was retained. The
dependent variable (utilisation of the NPGS) was based on the value rather than the number of loans because loan value exerts a greater influence on the level of finance and economic additionality (KPMG, 1999). The 'additionality' issues are much more important for my thesis than the impact of a large number of small loans by, for example, street traders and small retailers.

6.3 DESCRIPTIVE ANALYSIS

This section describes the results of the 'Frequencies' data generated from SPSS. Using the 'Frequencies' output can alert the researcher to possible errors in the data; furthermore, the frequency tables can be set up for any variable, irrespective of the level of measurement (Diamantopoulos and Schlegelmilch, 1997). For example, as discussed above, the variable 'age of firm' was grouped into four categories to make it easier for the researcher to identify the age groups of firms which utilise NPGS loans. The age group '4 years and below' can be classed as start up or young firms, while the bands '5 to 9 years' and '10 to 14 years' can be considered as middle-aged, and '15 years and above' as older firms. These groupings facilitate the comparison of my findings with those in the literature survey.

6.3.1 Firm Characteristics

This section provides background information on the firms that participated in the survey. The characteristics examined include legal status, business activity, size and age of firm, use of external advisers in raising funds and the existence of a business plan.

Legal Status

Table 6.1 shows that the majority of the borrowers (56.5 percent) are private limited companies; the unincorporated firms comprise sole proprietorships (27.2 percent) and partnerships (16.3 percent).
Table 6.1: Legal Status

<table>
<thead>
<tr>
<th>Legal Status</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Limited Company</td>
<td>52</td>
<td>56.5</td>
<td>56.5</td>
</tr>
<tr>
<td>Sole Proprietorship</td>
<td>25</td>
<td>27.2</td>
<td>83.7</td>
</tr>
<tr>
<td>Partnership</td>
<td>15</td>
<td>16.3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>100</strong></td>
<td></td>
</tr>
</tbody>
</table>

The sample contrasts with the underlying population of NPGS users, where the largest number (45 percent) of borrowers are sole proprietorships. However, more than half (63 percent) of NPGS funds were advanced to limited companies.

SMEs in Malaysia are typically family or sole proprietorship businesses, with low levels of capitalisation (Lim, 1988; ADB, 1990; Md. Salleh, 1991). These SMEs have restricted access to capital, modern technology, and marketing information (Abdullah, 1999; Md. Salleh, 1991, pp3-6). As a consequence, many SMEs remain sole proprietorship businesses. While the percentage of private limited companies in my sample is higher than unincorporated firms, it is the activities of the former that are of prime interest to the researcher. The choice of legal structure of a business influences its ability to obtain external finance. As discussed in Chapter 1, S.2.3, in response to asymmetric information, a lender’s typical reaction is to call for security or collateral. Storey (1994) stated that private limited companies are generally more able to access bank finance, and they certainly have more opportunity than unincorporated firms to obtain external equity (Binks et al., 1986). Achieving limited company status is perceived by OMs as a method of solving problems in raising finance (Posner, 1986), and unincorporated firms are constrained by the availability of collateral in obtaining finance (Godwin, 1993). Private limited companies have larger NPGS loans, and are of prime interest to the researcher. They operate in important sectors, are growth companies and generate higher levels of economic additionality.

**Business Activity**

Table 6.2 indicates that over one-half (60.9 percent) of sample firms are from the non-manufacturing sector. The main activities in this sector are wholesale and retail trading, building and construction, transport and repairs, poultry farming and spawning, and the breeding or culturing of aquatic products. This sample mirrors the ADB (1990) study, where the majority of SMEs were found in the retail and
wholesale trades and construction. Chin and Jomo (1996) also stated that "despite considerable government intervention in the financial sector, more than 70 percent of bank lending in Malaysia has not been for productive investment (for example, manufacturing), but for other purposes, especially real property and share purchases, and consumer credit." Respondents in the manufacturing sector (39.1 percent) cover a range of activities, including food and drinks, tobacco, timber products and furniture, textiles and clothing, building materials, and printing and publishing.

Table 6.2: Business Activity

<table>
<thead>
<tr>
<th>Business Activity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-manufacturing</td>
<td>56</td>
<td>60.9</td>
<td>60.9</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>36</td>
<td>39.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Employment Size

Table 6.3 below reveals that 90.2 percent of the borrowers have between 1 to 49 employees. The majority of firms, therefore, are small-scale enterprises, according to the Malaysian definition of SMEs. The remaining firms (9.8 percent) employ between 50 to 199 people, classed as medium-scale enterprises. The preponderance of small firms in my sample is not surprising, as it is acknowledged that such firms are denied credit by banks; smaller and newer firms have fewer assets which can be used as collateral (Binks, 1979; Bannock, 1981; Binks et al., 1992a), hence they tend to rely upon guarantee schemes to secure bank finance.

Table 6.3: Employment Size

<table>
<thead>
<tr>
<th>Employment Size</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 9</td>
<td>43</td>
<td>46.7</td>
<td>46.7</td>
</tr>
<tr>
<td>10 to 19</td>
<td>18</td>
<td>19.6</td>
<td>66.3</td>
</tr>
<tr>
<td>20 to 29</td>
<td>10</td>
<td>10.9</td>
<td>77.2</td>
</tr>
<tr>
<td>30 to 39</td>
<td>7</td>
<td>7.6</td>
<td>84.8</td>
</tr>
<tr>
<td>40 to 49</td>
<td>5</td>
<td>5.4</td>
<td>90.2</td>
</tr>
<tr>
<td>50 to 199</td>
<td>9</td>
<td>9.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Age of Firms

Table 6.4 below illustrates that over one-quarter (26.1 percent) of the firms have been in business for fewer than 4 years; and the most prominent category (37.0 percent) have been operating between 5 to 9 years. A significant minority of the firms in the sample are therefore young (operating for fewer than 5 years) and small (with fewer than 49 employees). Again, this profile was expected. As discussed in Chapter 2. S2.5.7 and in the previous section, the difficulties in raising finance were found to be inversely related not only to the size, but also to the age of the firm. Younger SMEs lack an established track record (Freer, 1980; Binks and Vale, 1990) and they face higher average credit costs than medium and large enterprises (Zainal et al., p. 313; Jomo, 1998). As SMEs achieve a sound credit record, they are increasingly able to obtain funding from financial institutions (Petershon & Shulman, 1987), hence they place less reliance on guarantee schemes.

Table 6.4: Age of Firms

<table>
<thead>
<tr>
<th>Age of Firms</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 years and below</td>
<td>24</td>
<td>26.1</td>
<td>26.1</td>
</tr>
<tr>
<td>5 to 9 years</td>
<td>34</td>
<td>37.0</td>
<td>63.0</td>
</tr>
<tr>
<td>10 to 14 years</td>
<td>18</td>
<td>19.6</td>
<td>82.6</td>
</tr>
<tr>
<td>15 years and above</td>
<td>16</td>
<td>17.4</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Use of External Advisers for Fund Raising

Table 6.5(a) indicates that over three-quarters of the sample firms (80 percent) use external advisers, often more than one. Only one in five NPGS users (19.6 percent) did not use any source of financial advice.

Table 6.5(a): Use of External Advisers for Fund Raising

<table>
<thead>
<tr>
<th>Use of External Financial Advisers for Fund Raising</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>74</td>
<td>80.4</td>
<td>80.4</td>
</tr>
<tr>
<td>No</td>
<td>18</td>
<td>19.6</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

158
The positive responses are broken down in Table 6.5(b). The most prominent sources of financial advice are bankers (45.9 percent), and relatives and friends (40.6 percent). The chambers of commerce (13.5 percent) are used less frequently. The use of banks and/or friends for advice is not surprising as SMEs cannot afford to buy in training or consultancy services (Wynant and Hatch, 1990).

<table>
<thead>
<tr>
<th>Sources of Financial Advice</th>
<th>Number of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bankers</td>
<td>34</td>
<td>45.9</td>
</tr>
<tr>
<td>Relatives and friends</td>
<td>30</td>
<td>40.6</td>
</tr>
<tr>
<td>Chambers of Commerce</td>
<td>10</td>
<td>13.5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>74</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

*Number of Respondents (n) = 74*

**Business Plan**

Table 6.6 demonstrates that over half (59.8 percent) of the respondent firms have a written business plan. As discussed in Chapter 2, S2.5.7, business plans are used by banks to evaluate the ability of an SME to repay loans. Business plans also give the OM an opportunity to demonstrate his or her skills and experience (Read, 1998). Moha Asri (1999) argued that SMEs worthy of Government assistance should be using business plans to support their operations. The predominance of private limited companies in the questionnaire data implies that such firms appreciate the importance of business plans as a tool for raising finance (Timmons et al., 1977; Schuman et al., 1985).

<table>
<thead>
<tr>
<th>Business Plan</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>55</td>
<td>59.8</td>
<td>59.8</td>
</tr>
<tr>
<td>No</td>
<td>37</td>
<td>40.2</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

6.3.2 **OM Characteristics**

This section provides background information on the OM. The characteristics examined include gender, ethnic group, age, formal training, formal education and business experience.
**Gender**

Table 6.7 below illustrates that the vast majority of OMs (90.2 percent) in the sample are male. Chee (1986a) stressed that SMEs in Malaysia were mainly run by men. On the evidence of this sample, the situation has not changed.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>83</td>
<td>90.2</td>
<td>90.2</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>9.8</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Women in Malaysia tend to be employed in the textiles, clothing, electronics, and food-processing industries, rather than acting as OMs. If women do start their own business, they are less likely to use banks as a source of capital, because such firms tend to be small and viewed as more risky (Capital, Credit and Financing, 1996; Coleman & Carsky, 1996a, 1996b, 1997). Furthermore, SMEs owned by women are often required to provide more security or collateral than would be required for the same loan to a man (Godfrey, 1992).

Even though the proportion of women-run business in my sample is modest, my evaluation may provide evidence that women continue to face problems in obtaining finance. If so, the findings may persuade the CGC to tackle this failing in the financial market.

**Ethnic Group**

Table 6.8(a) below reveals that over one-half (53.3 percent) of the firms are Bumiputera-owned, whereas Table 6.8(b) shows that 63.7 percent of the value of NPGS loans have been granted to Bumiputera-owned firms.

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bumiputera</td>
<td>49</td>
<td>53.3</td>
<td>53.3</td>
</tr>
<tr>
<td>Non-Bumiputera</td>
<td>43</td>
<td>46.7</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Table 6.8(b): Ethnic Group (Value of Loans)

<table>
<thead>
<tr>
<th>Ethnic Group</th>
<th>RM</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bumiputera</td>
<td>29,369,360</td>
<td>63.7</td>
<td>63.7</td>
</tr>
<tr>
<td>Non-Bumiputera</td>
<td>16,707,000</td>
<td>36.3</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>46,076,360</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

However, Bumiputera borrowers account for only 28.9 percent and 25.9 percent of all NPGS loans approved in terms of number and value respectively (CGC, 1997). Non-Bumiputeras are therefore, under-represented in my sample. Boocock and Mohd Shariff (1995) commented that the problems of conducting research in a mixed-race, multi-lingual society should not be under-estimated; Chinese OMs are reluctant to participate in any finance-related survey, owing to sensitivity over questions regarding business funding. My current questionnaire was also affected by a low response rate from Chinese OMs, even though the questionnaire was translated into Mandarin and questions on business funding were minimised. It appears that Bumiputera OMs were more willing to answer the questionnaire. Moreover, the value of their loans were higher than the average in the underlying population.

As discussed in Chapter 2, S2.5.7, non-Bumiputera OMs have traditionally been more successful than Bumiputera OMs because they have greater business experience and wider connections among the non-Bumiputera business community in Malaysia and South East Asia (Moha Asri, 1993). Furthermore, Bumiputera OMs were formerly ill equipped to compete with the greater business acumen and technical competence of non-Bumiputeras (Chee, 1986a). BNM therefore issues guidelines requiring financial institutions to provide guarantee cover to Bumiputera OMs. The profile of firms in the sample illustrates that NPGS loans are helping Bumiputeras. My research confirms the Aman and Mohd Desa (1990) and ADB (1990) studies which found that Bumiputera OMs receive more assistance from the Government and that they depend on banks for their financing needs. My evaluation may provide further evidence that Bumiputera OMs continue to face problems in obtaining finance, and that the Government (and CGC) are justified in tackling this issue.

**Age**

Table 6.9 below illustrates that nearly one-half (44.6 percent) of the OMs are between
The NPGS Questionnaire Survey: Results & Analysis

20 to 39 years of age. The age profile in my questionnaire is different from Chee (1986a), as it contains a greater proportion of middle-aged OMs. The biggest category in my sample is the 40 to 49 age bracket (43.5 percent) with the remaining 12.0 percent being over 50 years old. This might imply that as OMs gain experience and skills in running their businesses, they become more aware of the existence of the NPGS. Another possibility is that middle-aged OMs are more willing to share their experiences and problems with researcher. My findings might highlight the importance of CGC encouraging younger SMEs to utilise NPGS loans.

Table 6.9: Age

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 to 29</td>
<td>9</td>
<td>9.8</td>
<td>9.8</td>
</tr>
<tr>
<td>30 to 39</td>
<td>32</td>
<td>34.8</td>
<td>44.6</td>
</tr>
<tr>
<td>40 to 49</td>
<td>40</td>
<td>43.5</td>
<td>88.0</td>
</tr>
<tr>
<td>50 and above</td>
<td>11</td>
<td>12.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Training in Entrepreneurial Development and Technical Courses

Tables 6.10(a) and 6.10(b) reveal that nearly one-half of the respondents (48.9 percent) had undergone some training in entrepreneurial development and around one-third (35.9 percent) had undergone some technical training. Entrepreneurial training focuses more on the strategic elements of running a business while technical training centres on upgrading the skills of the work force (Moha Asri, 1999). As elaborated in Chapter 2, S2.5.7, the majority of attendees on EMT programmes organised by Government agencies are Bumiputeras. The certificates acquired are recognised by financial institutions and assist in gaining business loans (ADB, 1990). The ADB (1990) study also confirmed that "the need for training far exceeds the supply capacity of existing government training institutions." This might imply that CGC and financial institutions should identify the training/development needs of SMEs and organise training programmes for NPGS borrowers.
### Table 6.10(a): OM Training

<table>
<thead>
<tr>
<th>OM Training</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some training</td>
<td>45</td>
<td>48.9</td>
<td>48.9</td>
</tr>
<tr>
<td>No training</td>
<td>47</td>
<td>51.1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Table 6.10(b): Technical Training

<table>
<thead>
<tr>
<th>Technical Training</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some training</td>
<td>33</td>
<td>35.9</td>
<td>35.9</td>
</tr>
<tr>
<td>No training</td>
<td>59</td>
<td>64.1</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

### Highest Academic Qualification

Table 6.11 below reveals that over one-half (53.3 percent) of the OMs have basic junior or high school certificates. The remainder have a college diploma (16.3 percent) or university degree (30.4 percent) respectively.

### Table 6.11: Academic Qualification

<table>
<thead>
<tr>
<th>Academic Qualification</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Junior and high school certificate</td>
<td>49</td>
<td>53.3</td>
<td>53.3</td>
</tr>
<tr>
<td>College</td>
<td>15</td>
<td>16.3</td>
<td>69.6</td>
</tr>
<tr>
<td>University</td>
<td>28</td>
<td>30.4</td>
<td>100.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>92</strong></td>
<td><strong>100.0</strong></td>
<td></td>
</tr>
</tbody>
</table>

This profile suggests that the utilisation of NPGS loans is not linked strongly to the academic qualifications of OMs. However, Boocock and Wahab (1997) found that OMs with a higher level of education and have experience of EMT programmes were more likely to apply for external finance.

### Level of Experience

Table 6.12 reveals that the vast majority of the OMs (81.5 percent) had fewer than 15 years working experience before applying for NPGS backing with nearly two-thirds (60.9 percent) having fewer than 9 years experience.
Table 6.12: Business Experience

<table>
<thead>
<tr>
<th>Business Experience</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 3 years</td>
<td>17</td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td>4 to 6 years</td>
<td>26</td>
<td>28.3</td>
<td>46.7</td>
</tr>
<tr>
<td>7 to 9 years</td>
<td>13</td>
<td>14.1</td>
<td>60.9</td>
</tr>
<tr>
<td>10 to 12 years</td>
<td>10</td>
<td>10.9</td>
<td>71.7</td>
</tr>
<tr>
<td>13 to 15 years</td>
<td>9</td>
<td>9.8</td>
<td>81.5</td>
</tr>
<tr>
<td>16 years or more</td>
<td>17</td>
<td>18.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

As discussed earlier, the profile of OMs in my questionnaire contains a greater proportion of middle-aged OMs. Older OMs with business experience are more aware of the existence of NPGS loans. General experience and particularly managerial experience are both regarded by lenders as critically important when evaluating SMEs (Brophy, 1989), and my sample would appear to confirm this conclusion. Over 80 percent of OMs have more than 3 years experience in business.

6.3.3 Finance Additionality

This section provides information on the variables used to assess finance additionality in the questionnaire survey, notably the size of the NPGS loan and its contribution to the overall financial package.

Loan Size

Figure 6.1 shows that approximately one-third (34.8 percent) of borrowers have loans of less than RM250,000 with two-thirds of loans exceeding RM250,000. This profile is very much in line with the underlying population, where loans guaranteed in excess of RM250,000 accounted for 68.4 percent of value in 1997 (CGC, 1997). However, the average value of loans guaranteed in the sample are RM501,000 compared to the population average of RM239,000. As discussed in Section 6.2.2, the dependent variable for the utilisation of the NPGS was the value of the loans rather than the number of loans because loan size has a major influence on the level of finance and economic additionality (KPMG, 1999).
Abilities of Firms to Raise Finance in Absence of NPGS

Table 6.13 below shows that nearly two-thirds (38.0 percent) of firms relied solely on NPGS loans. This situation tends to be associated with full or 100 percent finance additionality, where the respondents believe that the NPGS is the only option available to them. (The level of finance additionality is a critical issue for the case studies in Chapter 7). The remainder (16.4 percent) utilised the NPGS in combination with other sources of finance. This situation might generate scale or partial finance additionality depending on how much existing or potential lenders would have been prepared to advance. The overwhelming majority of respondents (98.9 percent) considered NPGS loans to be important (Table 6.13(b)).

Table 6.13(a): Financial Package

<table>
<thead>
<tr>
<th>Financial Package</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>34</td>
<td>37</td>
<td>37</td>
</tr>
<tr>
<td>No</td>
<td>58</td>
<td>63</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 6.13(b): Important of NPGS Loans

<table>
<thead>
<tr>
<th>Important of NPGS Loans</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>91</td>
<td>98.9</td>
<td>98.9</td>
</tr>
<tr>
<td>No</td>
<td>1</td>
<td>1.1</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Having estimated the level of finance additionality, the next section discusses the impact of the NPGS on turnover, profit and employment.

6.3.4 Economic Additionality

The variables used to gauge economic additionality for the firms that participated in the questionnaire included the use of NPGS funds and their impact on business performance.

Use of NPGS loans

Table 6.14 indicates that over one-half (51.1 percent) of sample firms used the NPGS for working capital purposes. Only 16.3 percent purchased plant and machinery in addition to investing in working capital. The remainder (32.6 percent) used the funds for a combination of working capital, purchase of plant and machinery, and other purposes. This failure to invest heavily in productive assets influences the sample firms' ability to generate increased employment and output. Funds used for working capital purposes only do not have much impact on the subsequent progress of the firm, compared to funds used (say) to purchase fixed assets or acquire another business.

Table 6.14: Use of NPGS Loans

<table>
<thead>
<tr>
<th>Use of NPGS Loans</th>
<th>Number of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working Capital</td>
<td>47</td>
<td>51.1</td>
</tr>
<tr>
<td>Working Capital and Purchase of plant &amp; machinery</td>
<td>15</td>
<td>16.3</td>
</tr>
<tr>
<td>Working Capital, purchase of plant &amp; machinery, purchase of property and other</td>
<td>26</td>
<td>28.2</td>
</tr>
<tr>
<td>property costs and product development</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other property cost</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Purchase of plant and machinery</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>Other purposes</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Anticipated Performance against Forecasts

Table 6.15 shows that more than two-third (69.6) of borrowers claimed to have
achieved their forecast levels of turnover, profit and employment. Such a level of accuracy must be questionable! Only 20.7 percent felt they had under-achieved, while 9.7 percent had exceeded their anticipated levels of turnover, profit and employment.

<table>
<thead>
<tr>
<th>Anticipated performance as against forecast</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieved</td>
<td>64</td>
<td>69.6</td>
<td>69.6</td>
</tr>
<tr>
<td>Under-achieved</td>
<td>19</td>
<td>20.7</td>
<td>90.3</td>
</tr>
<tr>
<td>Exceeded</td>
<td>9</td>
<td>9.7</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

The level of economic additionality achieved by case study firms will be discussed in detail in Chapter 7.

6.4 RESULTS AND ANALYSIS

The previous section profiled the characteristics of firms and OMs, and introduced the discussion on finance and economic additionality. This Section is concerned with the testing of those hypotheses relating to the utilisation of the NPGS. The hypotheses are tested by a series of statistical techniques, as explained in Chapter 5, S.5.7.2.

6.4.1 Statistical Tests on the Hypotheses

i. Demand Factors

**Hypothesis 1:** There will be a negative relationship between the cost and the utilisation of the NPGS.

To test this hypothesis, Spearman's correlation coefficient was utilised. The results provide evidence of a negative relationship between the cost (rate of interest) and the utilisation of the NPGS (Table 6.16). The wider the differential between the average rate of interest charged by financial institutions and the rate applied to CGC lending, the more incentive for borrowers to utilise the NPGS (Kanbur et al., 1995; Mohamed, 1996). A prime objective of the CGC is to enable SMEs to have access to institutional
credit at reasonable cost (CGC, 1993). However, there is no evidence of a real relationship (either positive or negative) between cost and utilisation of the NPGS, suggesting that access to finance, rather than its cost, is the major problem for SMEs in Malaysia (Chee, 1986; Hashim 1992). \textit{The hypothesis has not been substantiated (p > .05, r = -.152)}.

Table 6.16: Correlation between Cost and NPGS Loans

<table>
<thead>
<tr>
<th></th>
<th>NPGS Loan</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPGS Loans</td>
<td>1.000</td>
<td>-.152</td>
</tr>
<tr>
<td>Cost</td>
<td>-.152</td>
<td>1.000</td>
</tr>
</tbody>
</table>

\textbf{Hypothesis 2: There will be a negative relationship between the availability of security or collateral and the utilisation of the NPGS.}

Spearman's correlation coefficient was again used to test this hypothesis (Table 6.17). The hypothesis supports the contention that the NPGS assists borrowers without sufficient collateral, implying that borrowers able to offer collateral would obtain conventional bank borrowing. The NPGS would be a genuine top-up facility for those borrowers without security or with insufficient security to cover their entire needs. This situation would be in line with the literature survey and the rationale for guarantee schemes. In the case of the NPGS, however, the banks tend to use personal security as evidence of commitment by the borrowers. The situation is also complicated by the existence of the BNM quotas. There was evidence from interviews with representatives of financial institutions that CGC loans are offered to pre-selected customers until the quota is exhausted; in the majority of these cases, the facility would probably have been granted unsecured. In the face of these conflicting pressures, the hypothesis was put forward on only a tentative basis. However, \textit{the hypothesis was substantiated to a significant degree (p < .05, r = -.208, 1-tailed)}.

Table 6.17: Correlation between Security or Collateral and NPGS Loans

<table>
<thead>
<tr>
<th></th>
<th>NPGS Loan</th>
<th>Security or collateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPGS Loans</td>
<td>1.000</td>
<td>-.208*</td>
</tr>
<tr>
<td>Security or Collateral</td>
<td>-.208*</td>
<td>1.000</td>
</tr>
</tbody>
</table>

\*Correlation is significant at the .05 level (1-tailed)
(Hypothesis 3 to 5 are covered in Chapter 7).

**Hypothesis 6:** There will be a positive relationship between the availability of CGC support through finance companies and the utilisation of the NPGS.

There is no significant association between the availability of CGC support through finance companies and the utilisation of NPGS loans (Table 6.18). Spearman’s coefficient was $r = .115$ ($p > .05$). All licensed finance companies are now able to grant NPGS loans, and more than RM345 million or 16.7 percent of NPGS loans were granted by finance companies by 30th April 1998. However, the interest rate charged by finance companies is much higher than commercial banks. As discussed in Chapter 4, S.4.3.2, finance companies are oriented towards consumer lending, principally hire purchase, housing loans and other consumer loans. The recent introduction of NPGS loans by finance companies means that many SMEs are not aware that CGC-backed facilities are available from this source. Despite the fact that access to finance, rather than its cost may be the principal problem for SMEs in Malaysia, the hypothesis has not been substantiated.

<table>
<thead>
<tr>
<th>Table 6.18: Correlation between Finance Companies and NPGS Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NPGS Loans</strong></td>
</tr>
<tr>
<td><strong>Finance Companies</strong></td>
</tr>
</tbody>
</table>

**iii. Characteristics of the Firm**

**Hypothesis 7:** There will be a positive relationship between private limited company status and the utilisation of the NPGS.

In order to determine whether or not there was a significant difference in the utilisation of NPGS loans between the three forms of legal structure (sole proprietors, partnerships and private limited companies), the Eta coefficient and ANOVA were used.
Table 6.19 reveals a strong positive relationship between private limited company status and the utilisation of NPGS loans, the Eta coefficient ($r = .315$). As discussed in S6.3.1, more than half (63 percent) of the funds advanced in NPGS loans was granted to limited companies, even though sole-proprietorships represented the largest (45 percent) number of recipient firms for NPGS loans.

Table 6.19: Correlation between Private Limited Company and NPGS Loans

<table>
<thead>
<tr>
<th></th>
<th>NPGS Loan</th>
<th>Private Limited Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPGS Loans</td>
<td>1.000</td>
<td>.315**</td>
</tr>
<tr>
<td>Private Limited Companies</td>
<td>.315**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at the .01 level (1-tailed)**

An ANOVA also provides evidence of significant differences in the utilisation of NPGS loans among the three groups. The overall $F$ ratio of 5.684 is significant at the .005 level, implying that sole proprietorship, partnership and private limited companies utilise NPGS loans to different degrees (Table 6.20).

Table 6.20: ANOVA Summary Table Legal Structure of Companies

<table>
<thead>
<tr>
<th>Group</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6385571450358.97</td>
<td>2</td>
<td>3192785725179.49</td>
<td>5.684</td>
<td>.005</td>
</tr>
<tr>
<td>Within Groups</td>
<td>49988606660441.0</td>
<td>89</td>
<td>561669737757.765</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56374178110800.0</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In addition, an LSD post hoc multiple comparisons procedure was used. The LSD procedure confirmed that private limited companies have a higher ($p < .05$) utilisation rate for NPGS loans than partnerships and sole proprietorships (Table 6.21). (The average NPGS loan for private limited companies in the underlying population was RM386,844, with the averages for partnerships and sole proprietorships being RM171,887 and RM135,342 respectively). As discussed in Chapter 2, private limited companies are more likely to rely upon bank finance (Storey, 1994), as limited liability status gives greater credibility to lenders/investors (Freedman and Godwin, 1992; Boocock and Wahab, 1997). Therefore, the hypothesis has been substantiated.
Table 6.21: Post Hoc Multiple Comparisons of NPGS Loans across Legal Structure of Companies

<table>
<thead>
<tr>
<th>Mean difference between groups (RM)</th>
<th>Limited Companies</th>
<th>Partnership</th>
<th>Sole Proprietorship</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limited Companies</td>
<td>-</td>
<td>521,519.74*</td>
<td>537,253.08*</td>
</tr>
<tr>
<td>Partnership</td>
<td>-</td>
<td>-</td>
<td>15,733.33</td>
</tr>
<tr>
<td>Sole Proprietorship</td>
<td></td>
<td></td>
<td>p &lt; .05</td>
</tr>
</tbody>
</table>

Hypothesis 8: There will be a positive relationship between manufacturing firms and the utilisation of the NPGS.

In Table 6.22, theEta coefficient reveals a moderate positive relationship between manufacturing firms and the utilisation of NPGS loans (r = .250). The literature review in Chapter 2 confirmed that banks generally prefer to lend on tangible, hard assets such as plant and equipment (Loscocco and Robinson, 1991) to counteract the problems associated with asymmetric information. Non-manufacturing sectors lack tangible assets; furthermore, the assets of service-sector firms tend to have low resale value in the event of bankruptcy, hence non-manufacturing firms often receive less favourable terms of credit than those in the manufacturing sector (Therrien et al., 1986; Riding and Swift, 1990). Even though the NPGS is aimed at firms lacking collateral, and despite the fact that hypothesis 2 was substantiated, it is not unexpected that the above hypothesis has been substantiated.

Table 6.22: Correlation between manufacturing firms and NPGS Loans

<table>
<thead>
<tr>
<th></th>
<th>NPGS Loan</th>
<th>Manufacturing Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPGS Loans</td>
<td>1.000</td>
<td>.250**</td>
</tr>
<tr>
<td>Manufacturing Firms</td>
<td>.250**</td>
<td>1.000</td>
</tr>
</tbody>
</table>

**Correlation is significant at the .01 level (1-tailed)**

Manufacturing firms obtained NPGS loans of RM745,000 on average, higher than the average for agricultural firms (RM602,000) and general businesses (RM307,000). An ANOVA in Table 6.23 yielded a significant F ratio of 6.00, which confirmed a significant difference between groups in terms of their utilisation of NPGS (p < .05).
The results illustrate that manufacturing firms obtain significantly larger NPGS loans than non-manufacturing firms. A follow-up LSD test indicated that manufacturing firms utilise significantly larger NPGS loans \((p < .05)\) than general businesses, but there are no significant differences between the loan sizes of manufacturing and agricultural firms (Table 6.24).

Hypothesis 9: There will be a positive relationship between the size of firm and the utilisation of the NPGS.

The Eta coefficient in Table 6.25 provides evidence of a strong positive relationship between the size of firm and the utilisation of NPGS loans \((r = .508)\). Smaller firms command lower loans because they lack an established track record (Freer, 1985; Binks and Vale, 1990) and they have fewer assets which can be used as collateral (Binks, 1979; Bannock, 1981; Binks et al., 1992).

Preliminary analysis was conducted to determine if there were significant differences...
in utilisation between the size bands (1 to 9 employees versus 10 to 19 employees and so on). The ANOVA test \((F(5,85) = 6.982, p < .05, \text{ refer to Table } 6.26)\) did indicate significant differences in the utilisation among the six groups of firms.

<table>
<thead>
<tr>
<th>Table 6.26: ANOVA Summary Table of Size of Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sum of Squares</td>
</tr>
<tr>
<td>------------------------</td>
</tr>
<tr>
<td>Between Groups</td>
</tr>
<tr>
<td>Within Groups</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 and above (group 1)</td>
<td>9</td>
<td>RM1,338,555.56</td>
</tr>
<tr>
<td>20 - 29 Employees (group 2)</td>
<td>9</td>
<td>RM735,555.56</td>
</tr>
<tr>
<td>30 - 39 Employees (group 3)</td>
<td>7</td>
<td>RM592,480.00</td>
</tr>
<tr>
<td>40 - 49 Employees (group 4)</td>
<td>5</td>
<td>RM564,400.00</td>
</tr>
<tr>
<td>10 - 19 Employees (group 5)</td>
<td>18</td>
<td>RM293,888.89</td>
</tr>
<tr>
<td>1 - 9 Employees (group 6)</td>
<td>43</td>
<td>RM236,046.51</td>
</tr>
</tbody>
</table>

The LSD test was used to determine significant differences at the .05 level between the six groups (Table 6.27). Group 1 had significantly higher NPGS loans than all other groups \((p < .05)\). Group 2 had also significantly higher NPGS loans than Group 6 \((p < .05)\). The average NPGS loan in the sample is RM500,830.

The results clearly confirm that bigger firms command higher NPGS loans than smaller firms. These results are consistent with the findings of Binks et al., (1986) and Yoon (1988), and the inverse relationship between the size of firm and the existence of difficulty in obtaining larger loans is also observed in other studies (e.g. Chee, 1986; Terpstra & Olson, 1993; Moore, 1994). Smaller firms face difficulties in raising larger loans because of insufficient assets to use as collateral (Bannock, 1981; Binks et al., 1992a). Although Hypothesis 2 indicated that NPGS-backed facilities did assist borrowers without sufficient collateral, and micro firms form the largest group by number in my sample, the hypothesis has been substantiated.
Table 6.27: Post Hoc Multiple Comparisons of NPGS Loans across Firm Size

<table>
<thead>
<tr>
<th>Mean difference groups (RM)</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 4</th>
<th>Group 5</th>
<th>Group 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 1 - 603,000*</td>
<td>746,075*</td>
<td>774,155*</td>
<td>1,044,666*</td>
<td>1,102,509*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 2 - 143,076</td>
<td></td>
<td>171,156</td>
<td>441,667</td>
<td>499,509*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 3 - 2,080</td>
<td></td>
<td></td>
<td>298,591</td>
<td>356,433</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 4 - 270,511</td>
<td></td>
<td></td>
<td></td>
<td>328,353</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 5 - 57,842</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Group 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Hypothesis 10: There will be a positive relationship between the age of the firm and the utilisation of the NPGS.

Younger SMEs with short track records appear to make less use of bank and institutional finance than established SMEs (Binks, 1979; Bannock, 1981; Oakey, 1984; Kee et al., 1986; Petersen & Schulman, 1987, Van Auken & Doren, 1989; University of Cambridge, 1992). As elaborated in S6.3.1, the significant minority of the firms in the sample are young and small and therefore lack collateral or security. However, the Eta coefficient (Table 6.28) provides no real evidence of a positive relationship between age and the utilisation of NPGS loans. It would appear that some young firms can command large loans. Furthermore, some middle-aged firms in the sample would have been able to obtain conventional funding from financial institutions, thus they would require lower NPGS-backed loans. As a consequence, the hypothesis has not been substantiated (p > .10, r = .121).

Table 6.28: Correlation between Age of Firms and NPGS Loan

<table>
<thead>
<tr>
<th>NPGS Loan</th>
<th>Age of Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000</td>
<td>.121</td>
</tr>
<tr>
<td>.121</td>
<td>1.000</td>
</tr>
</tbody>
</table>

The ANOVA test also indicated there was no significant difference between groups in term of age, F (3,88) = .433, p >.05 (Table 6.29).
Hypothesis 11: There will be a positive relationship between the use of external advisers for fund raising and the utilisation of the NPGS

On the basis of an Eta coefficient (Table 6.30), the results provide evidence of a strong positive relationship between the use of external advisers for fund raising and the utilisation of NPGS loans ($r = .356, p < .01$). This relationship is to be expected as most sample firms rely upon banks and relatives/friends for advice. From the literature review in Chapter 2, bank managers are an important source of financial advice for SMEs (Lovett, 1980; Smallbone et al., 1990 & 1993a; Curran and Blackburn, 1994). Such assistance commonly relates to advice on borrowing (Back, 1977) and financial planning (Barclays, 1993; Smallbone et al., 1993b). As discussed in S6.3.1, SMEs tend to seek financial advice from banks because they cannot afford to buy in training or consultancy services (Wynant and Hatch, 1990).

To examine the impact of differences in the use of advice from different external advisers, ANOVA analysis was conducted (Table 6.31). Significant differences were found, $F(4,87) = 2.495, p < .05$. 

**Table 6.30: Correlation between Use of External Advisers and NPGS Loans**

<table>
<thead>
<tr>
<th>NPGS Loans</th>
<th>Use of External Advisers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000</td>
<td>.356**</td>
</tr>
<tr>
<td><strong>Correlation is significant at the .01 level (1-tailed)</strong></td>
<td></td>
</tr>
</tbody>
</table>

To examine the impact of differences in the use of advice from different external advisers, ANOVA analysis was conducted (Table 6.31). Significant differences were found, $F(4,87) = 2.495, p < .05$.
Table 6.31: ANOVA Summary Table of the Use of External Advisers for Fund

<table>
<thead>
<tr>
<th></th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5800700187963.40</td>
<td>4</td>
<td>1450175046990.85</td>
<td>2.495</td>
<td>.049</td>
</tr>
<tr>
<td>Within Groups</td>
<td>50573477922836.60</td>
<td>87</td>
<td>58130433940.65</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56374178110800.0</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Group Count Mean

- Bank manager & Relatives/friends (Group 3): 29, RM853,896
- None (Group 5): 19, RM421,756
- Bank manager (Group 2): 17, RM411,765
- Relatives/friends (Group 4): 17, RM234,215
- Accountants & chambers of commerce (Group 1): 19, RM231,250

The external advisers were arranged in five groups, according to the frequency of use by borrowers. Comparisons of the groups were made using the LSD test, refer to Table 6.32. Group 3 was significantly different from Groups 4 and 1 (p < .05). Large loans are thus taken out by borrowers who use bankers and relatives/friends as the principal source of financial advice, rather than those depending only on one source, or accountants and chambers of commerce. This suggests that, for example, a borrower having difficulty in getting an NPGS loan from his bank might seek advice from a friend who would introduce the borrower to his own bank. The introduction from a respected referee might help to alleviate asymmetric information. Accountants and the chambers of commerce were rarely used as a source of advice. Boocock and Wahab (1997) found that the role of accountants in Malaysia was restricted to the preparation of financial statements for LSEs. Overall, however, the hypothesis has been substantiated.

Table 6.32: Post Hoc Multiple Comparisons of NPGS Loans across Use of External Advisers for Fund Raising

<table>
<thead>
<tr>
<th>Mean difference between groups (RM)</th>
<th>Group 3</th>
<th>Group 5</th>
<th>Group 2</th>
<th>Group 4</th>
<th>Group 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 3</td>
<td>-</td>
<td>-32,141</td>
<td>442,132</td>
<td>619,686*</td>
<td>622,647*</td>
</tr>
<tr>
<td>Group 5</td>
<td>-</td>
<td>9,991</td>
<td>187,545</td>
<td>190,506</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>-</td>
<td>-</td>
<td>177,554</td>
<td>180,515</td>
<td></td>
</tr>
<tr>
<td>Group 4</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2,961</td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Hypothesis 12: There will be a positive relationship between the existence of a written business plan and the utilisation of the NPGS.

ANOVA (Table 6.33) provides evidence of a moderate positive relationship between
the existence of written business plans and the utilisation of NPGS loans. Hypotheses 11 and 12 are both associated with a professional and informed approach to fund raising. Loan applications are rarely considered without a well-formulated and well-presented business plan (Deakins and Hussein, 1991; Berry et al., 1993; Carty, 1994). Of those borrowers who had prepared business plans, nearly two-thirds (64 percent) were Bumiputeras and 82 percent of that sub-group had undergone entrepreneurship training programmes organised by Government agencies. There is clearly strong evidence to suggest that assisting borrowers to prepare business plans helps them to obtain CGC-backed loans. Therefore, the hypothesis has been substantiated ($F(1,90) = 6.810, p < .05$).

<table>
<thead>
<tr>
<th>Table 6.33: ANOVA for Comparisons of Means for Business Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Existence of a Written Business Plan</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Number</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard deviation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between group</td>
<td>396556274917.5</td>
<td>1</td>
<td>396556274917.5</td>
<td>6.810</td>
<td>.011</td>
</tr>
<tr>
<td>Within groups</td>
<td>52408615363882.5</td>
<td>90</td>
<td>582317948487.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

iv. **Characteristics of the OM**

**Hypothesis 13:** *There will be a positive relationship between male OMs and the utilisation of the NPGS*

In Table 6.34, an ANOVA displays no real evidence of a positive relationship between the gender of OMs and the utilisation of the NPGS ($F(1,90) = .216, p > .05$). Cole & Wolken (1995) state that SMEs run by women are less likely to use banks as a source of capital than businesses owned by men. As revealed in S6.3.2, SMEs may be less attractive to banks and other potential creditors because women-run firms are small and viewed as being more risky (Capital, Credit and Financing, 1996). Moreover, lenders may not discriminate against women on the basis of gender, but on the basis of firm size, preferring to lend to larger and more established firms (Coleman, 1998). Female OMs tend to be more heavily concentrated in service businesses, which may not have assets that can be used as collateral (Riding & Swift, 1990; Coleman & Carsky, 1996a, 1996b, 1997). In the face of these arguments, and
the prevailing culture in Malaysia, it is surprising that the hypothesis has not been substantiated. It appears that, although there are few women OMs in my sample, there is no gender difference between the size of loans granted.

Table 6.34: ANOVA for Comparisons of Means for Gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>Number</th>
<th>Mean</th>
<th>Standard deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>83</td>
<td>513,450.12</td>
<td>806,381.76</td>
</tr>
<tr>
<td>Female</td>
<td>9</td>
<td>384,444.44</td>
<td>603,989.05</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between group</td>
<td>135129575478.98</td>
<td>1</td>
<td>135129575479.0</td>
<td>.216</td>
<td>.643</td>
</tr>
<tr>
<td>Within groups</td>
<td>56239048535321</td>
<td>90</td>
<td>624878317059.1</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 14: There will be a positive relationship between Bumiputera OMs and the utilisation of the NPGS.

The Eta coefficient in Table 6.35 shows no real evidence of a relationship between Bumiputera OMs and the utilisation of the NPGS loans ($r = .140, p > .05$).

Table 6.35: Correlation between Bumiputera OMs and NPGS loans

<table>
<thead>
<tr>
<th>NPGS Loan</th>
<th>Bumiputera OMs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000</td>
<td>.140</td>
</tr>
<tr>
<td>.140</td>
<td>1.000</td>
</tr>
</tbody>
</table>

As elaborated in S6.3.2, the NPGS guidelines or quotas issued by BNM favour Bumiputera SMEs, as part of a general policy of assisting this part of the community. Further analysis using ANOVA (Table 6.36) reveals no significant differences among the three ethnic groups ($F(2,89) = .888, p > .05$) in the statistical relationships. As discussed in Section 6.3, Bumiputera borrowers account for only 28.9 percent and 25.9 percent of all NPGS loans in the underlying population, in terms of number and value respectively (CGC, 1977). The host of small loans granted to Bumiputera OMs are underpresented in my sample, as are loans to non-Bumiputera borrowers. Despite the inclusion of many large loans to the Bumiputera business community, the hypothesis has not been substantiated.
The NPGS Questionnaire Survey: Results & Analysis

Table 6.36: ANOVA Summary Table of NPGS Loans across Ethnic Groups

<table>
<thead>
<tr>
<th>Group</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1102592901791.71</td>
<td>2</td>
<td>551296450895.86</td>
<td>.888</td>
<td>.415</td>
</tr>
<tr>
<td>Within Groups</td>
<td>55271585209008.30</td>
<td>89</td>
<td>621029047292.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56374178110800.00</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bumiputera</td>
<td>49</td>
<td>RM599,374.69</td>
</tr>
<tr>
<td>Chinese</td>
<td>33</td>
<td>RM412,939.39</td>
</tr>
<tr>
<td>Indian and Others</td>
<td>10</td>
<td>RM308,000.00</td>
</tr>
</tbody>
</table>

Hypothesis 15: There will be a positive relationship between the age of the OM and the utilisation of the NPGS

ANOVA in Table 6.37 provides some evidence of a positive relationship between the age of the OM and the utilisation of NPGS loans ($F(2,89) = 2.757, p < 0.10$).

Table 6.37: ANOVA Summary Table of Age of OM

<table>
<thead>
<tr>
<th>Group</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>3288684616440.0</td>
<td>2</td>
<td>1644342308220.0</td>
<td>2.757</td>
<td>.069</td>
</tr>
<tr>
<td>Within Groups</td>
<td>53085493494360.0</td>
<td>89</td>
<td>596466219037.75</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56374178110800.00</td>
<td>91</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-49 (Group 2)</td>
<td>40</td>
<td>RM716,109</td>
</tr>
<tr>
<td>20-39 (Group 1)</td>
<td>41</td>
<td>RM342,000</td>
</tr>
<tr>
<td>50 and above (Group 3)</td>
<td>11</td>
<td>RM310,000</td>
</tr>
</tbody>
</table>

The LSD test (Table 6.38) indicates a significant difference between Group 2 (40 to 49 years) and Group 1 (20 to 39 years). This finding is consistent with Cressy (1993) in that middle-aged OMs are more likely to own assets and therefore have more security/collateral. There was no significant difference between Group 2 (40 to 49 years) and Group 3 (50 and above). This may imply that Group 3 OMs have fewer problems in raising finance, since older OMs might have more assets/resources to introduce into the business (Boocock and Wahab, 1997). Younger OMs are more likely to face difficulties in raising finance. However, the overall evidence from the questionnaire responses on this issue is not strong, hence the hypothesis has not been substantiated.
Table 6.38: Post Hoc Multiple Comparisons of NPGS Loans across Different Age Groups of OMs

<table>
<thead>
<tr>
<th>Mean difference between groups (RM)</th>
<th>Group 2</th>
<th>Group 1</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 2</td>
<td>-</td>
<td>374,109*</td>
<td>406,109</td>
</tr>
<tr>
<td>Group 1</td>
<td>-</td>
<td>-</td>
<td>32,000</td>
</tr>
<tr>
<td>Group 3</td>
<td></td>
<td></td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .05

**Hypothesis 16:** There will be a positive relationship between the amount of technical training undertaken and the utilisation of the NPGS.

Loans are higher on average for firms where the OM has had some technical training but the ANOVA test (Table 6.39) provides insufficient evidence of a positive relationship. As discussed in S6.3.2, one third of respondents (35.9 percent) had undergone some technical training mainly ‘on the job training’ with their former employers. However, the need for training far exceeds the capacity of existing government institutions to supply training (ADB, 1990), hence many potential OMs do not have the opportunity to participate in training programmes when in employment. In the face of this shortfall, the hypothesis has not been substantiated ($F (1,90) = .956, p > .05$).

Table 6.39: ANOVA for Comparisons of Means for Technical Training of OM

<table>
<thead>
<tr>
<th>Technical Training</th>
<th>Yes</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>33</td>
<td>59</td>
</tr>
<tr>
<td>Mean</td>
<td>608,151.52</td>
<td>440,802.71</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>1,053,421.33</td>
<td>591,188.25</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F$</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between group</td>
<td>592684419520.65</td>
<td>1</td>
<td>592684195209.7</td>
<td>.956</td>
<td>.331</td>
</tr>
<tr>
<td>Within groups</td>
<td>56374178110800.0</td>
<td>90</td>
<td>619794376839.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Hypothesis 17:** There will be a positive relationship between the amount of EMT and the utilisation of the NPGS.

Once again, the Eta test (Table 6.40) provides evidence of only a moderately positive relationship between the amount of EMT and the utilisation of NPGS loans ($r = .338$).
Further analysis performed by ANOVA shows no significant differences stemming from different types of EMT or, indeed, no training at all (Table 6.41). Therefore, the hypothesis has not been substantiated ($F(5,86) = 1.486, p > .05$).

Even though ANOVA failed to determine a significance difference among the groups, the LSD test (Table 6.42) reveals that OMs attending EMT programmes organised by MEDEC (Group 4) had a higher utilisation of NPGS loans than those not attending any training programmes (Group 6). There were no significant differences among the other groups.

Hypotheses 12 and 17 explore the relationship between the preparation of business plans and attendance at EMT and the utilisation of NPGS loans. Bumiputera OMs attending EMT organised by MEDEC (the EMT provider for Bumiputera OMs) are taught to prepare business plans and this might help to explain lender willingness to provide NPGS loans. The MEDEC programmes focus on the development of business plans, obtaining sources of finance, assessment of the viability of business propositions, company formation and basic management skills. The current survey is consistent with Boocock and Wahab (1997), who found that "EMT was significantly associated with the utilisation of government-backed schemes; this was not surprising as most training programmes are organised through government agencies".
Furthermore, Moha Asri (1999) stated that EMT provided by government agencies (MARA and NPC) is sometimes considered as a basic requirement by commercial banks and development financial institutions for approving loans to Bumiputera borrowers (MARA and NPC collaborate with these financial institutions in linking EMT and financial assistance).

The CGC does not have similar collaboration with financial institutions, hence the approval of NPGS loans does not depend on prior EMT. The questionnaire data therefore suggest that Bumiputera OMs who undertake EMT might extend their range of choice when they approach external financiers, but there is no clear cut relationship overall between EMT and NPGS utilisation.

### Table 6.42: Post Hoc Multiple Comparisons of NPGS Loans Across EMT

<table>
<thead>
<tr>
<th>Group 4</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 6</th>
<th>Group 5</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>difference between groups (RM)</td>
<td>-</td>
<td>447,953</td>
<td>506,876</td>
<td>742,508*</td>
<td>809,051</td>
</tr>
<tr>
<td>Group 1</td>
<td>-</td>
<td>58,923</td>
<td>294,555</td>
<td>361,099</td>
<td>411,385</td>
</tr>
<tr>
<td>Group 2</td>
<td>-</td>
<td>-</td>
<td>235,632</td>
<td>302,176</td>
<td>352,462</td>
</tr>
<tr>
<td>Group 6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>66,544</td>
<td>116,830</td>
</tr>
<tr>
<td>Group 5</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>50,286</td>
</tr>
<tr>
<td>Group 3</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*p < .05

**Hypothesis 18:** There will be a positive relationship between higher levels of Formal Education of OMs and the utilisation of the NPGS.

The Eta coefficient in Table 6.43 provides evidence of a moderate positive relationship between higher levels of education and utilisation of NPGS loans (*r* = .325).

### Table 6.43: Correlation between Level of Education and NPGS Loan

<table>
<thead>
<tr>
<th>NPGS Loan</th>
<th>Level of Education</th>
<th>NPGS Loan</th>
<th>Level of Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000</td>
<td>.325*</td>
<td>1.000</td>
<td>.325*</td>
</tr>
</tbody>
</table>

*Correlation is significant at the .05 level (1-tailed)

Education, general and managerial, is regarded both by lenders as critically important
when evaluating companies (Brophy, 1989; Berry et al., 1993). Notwithstanding this assertion, ANOVA fails to find sufficient evidence of significance differences between the three groups (junior/high school, college and university), see Table 6.44. NPGS-backed facilities appear to be utilised, irrespective the OMs level of academic education. Fong (1990) highlighted that 56 percent of the technical skills acquired by OMs were job-related, compared to 13 percent through formal education. Likewise, 44 percent of OMs learned their management and administrative skills from their jobs compared to 17 percent through formal education.

Table 6.44: ANOVA Summary Table of Higher Levels of Education

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1619097974617.51</td>
<td>2</td>
<td>809548987308.76</td>
<td>2.078</td>
</tr>
<tr>
<td>Within Groups</td>
<td>34290104055096.78</td>
<td>88</td>
<td>389660273353.37</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35909202029714.29</td>
<td>90</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Count</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>University degree (group 3)</td>
<td>31</td>
<td>RM624,270</td>
</tr>
<tr>
<td>College Diploma (group 2)</td>
<td>20</td>
<td>RM446,500</td>
</tr>
<tr>
<td>Junior and high school (Group 1)</td>
<td>40</td>
<td>RM319,850</td>
</tr>
</tbody>
</table>

Despite the importance of on the job training, further analysis by the LSD test revealed a significant difference between Group 3 and Group 1. This indicates that borrowers with a university degree obtain larger NPGS loans than those with a lower level of education. There was no significant difference between Groups 3 and 2 (Table 6.45).

Table 6.45: Post Hoc Multiple Comparisons of NPGS Loans Across Higher Levels of Education

<table>
<thead>
<tr>
<th>Mean difference between groups (RM)</th>
<th>Group 3</th>
<th>Group 2</th>
<th>Group 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 3</td>
<td></td>
<td>177,770</td>
<td>304,420*</td>
</tr>
<tr>
<td>Group 2</td>
<td></td>
<td></td>
<td>126,650</td>
</tr>
<tr>
<td>Group 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

Overall, however, the hypothesis has not been substantiated \( F (2,88) = 2.078, p > .05\).
Hypothesis 19: There will be a positive relationship between previous business experience and the utilisation of the NPGS.

Table 6.46 uses the Eta coefficient to measure the relationship between previous business experience and the utilisation of the NPGS. The results indicate only a modest positive correlation ($r = .301$).

Table 6.46: Correlation between Previous Business Experience and NPGS Loan

<table>
<thead>
<tr>
<th>NPGS Loan</th>
<th>Previous Business Experience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.000</td>
<td>.301</td>
</tr>
<tr>
<td>.301</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Berry et al. (1993) found that lenders associate past experience with the skills required to start a new business, thereby helping to avoid problems of adverse selection. However, ANOVA (Table 6.47) could not provide evidence of significant differences among the groups ($F (5,86) = 1.721, p > .05$).

Table 6.47: ANOVA Summary Table of Previous Business experience

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5127206730883.98</td>
<td>5</td>
<td>1025441346176.797</td>
<td>1.721</td>
</tr>
<tr>
<td>Within Groups</td>
<td>51246971379916.0</td>
<td>86</td>
<td>595895016045.535</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>56374178110800.00</td>
<td>91</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The 1-SD test (Table 6.48) indicates significant differences between Group 5 (13 years to 15 years) and all other groups except Group 6 (16 years or more). These findings reveal that borrowers having more experience make greater utilisation of NPGS loans. They are probably more aware of the existence of the NPGS loans. However, there is not a linear relationship between age and size of loans. For example, some younger borrowers obtain large loans, and some middle-aged OMs are able to obtain funding from other sources hence they have lower NPGS loans. Overall, therefore, the hypothesis has not been substantiated.
### Table 6.48: Post Hoc Multiple Comparisons of NPGS Loan Across Business Experience

<table>
<thead>
<tr>
<th>Mean difference between groups (RM)</th>
<th>Group 5</th>
<th>Group 6</th>
<th>Group 2</th>
<th>Group 3</th>
<th>Group 1</th>
<th>Group 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group 5</td>
<td></td>
<td>566,667</td>
<td>620,551*</td>
<td>685,744*</td>
<td>788,313*</td>
<td>949,331*</td>
</tr>
<tr>
<td>Group 6</td>
<td>53,885</td>
<td></td>
<td>119,077</td>
<td>219,250</td>
<td>382,664</td>
<td></td>
</tr>
<tr>
<td>Group 2</td>
<td>65,192</td>
<td>620,551*</td>
<td></td>
<td>165,365</td>
<td>328,779</td>
<td></td>
</tr>
<tr>
<td>Group 3</td>
<td></td>
<td>100,173</td>
<td></td>
<td></td>
<td>263,587</td>
<td></td>
</tr>
<tr>
<td>Group 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>163,414</td>
</tr>
<tr>
<td>Group 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05

### 6.4.2 Summary of the Results

A summary of the results is shown in Table 6.49 below.

### Table 6.49: Tests of Hypotheses

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Demand Factors</strong></td>
<td></td>
</tr>
<tr>
<td>cost of loan</td>
<td>not substantiated</td>
</tr>
<tr>
<td>amount of security or collateral</td>
<td>substantiated*</td>
</tr>
<tr>
<td><strong>Supply Factors</strong></td>
<td></td>
</tr>
<tr>
<td>support from finance companies</td>
<td>not substantiated</td>
</tr>
<tr>
<td><strong>Characteristics of Recipients</strong></td>
<td></td>
</tr>
<tr>
<td>legal structure of business</td>
<td>substantiated**</td>
</tr>
<tr>
<td>manufacturing firm</td>
<td>substantiated**</td>
</tr>
<tr>
<td>size of firm</td>
<td>substantiated**</td>
</tr>
<tr>
<td>age of firm</td>
<td>not substantiated</td>
</tr>
<tr>
<td>use of external adviser for fund raising</td>
<td>substantiated**</td>
</tr>
<tr>
<td>existence of business plan</td>
<td>substantiated**</td>
</tr>
<tr>
<td><strong>Characteristics of OMs</strong></td>
<td></td>
</tr>
<tr>
<td>gender</td>
<td>not substantiated</td>
</tr>
<tr>
<td>ethnic</td>
<td>not substantiated</td>
</tr>
<tr>
<td>age</td>
<td>not substantiated</td>
</tr>
<tr>
<td>formal technical training</td>
<td>not substantiated</td>
</tr>
<tr>
<td>formal EMT</td>
<td>not substantiated</td>
</tr>
<tr>
<td>formal education</td>
<td>not substantiated</td>
</tr>
<tr>
<td>business experience</td>
<td>not substantiated</td>
</tr>
</tbody>
</table>

* Significant at 0.05 significance level, a 1-tailed test
** Significant at 0.01 significance level, a 1-tailed test
None of the characteristics of OM (i.e. gender, ethnic group, age, formal technical training and EMT, formal education and business experience) were able to explain the utilisation of the NPGS. My findings thus do not support the conclusions found in the existing literature.

The anomalies could perhaps be explained by some elements of the prevailing culture in Malaysia, or perhaps by some characteristics of my sample. For example: women tend to be relegated to a minor role in the business community, yet there was no significant difference in the size of loans granted to men and women; the training and education findings were all broadly in line with the literature, yet the statistical relationships were not strong enough to substantiate any of the hypotheses; the relationship between age and utilisation is complicated by the influence of the availability of assets as security.

The most striking anomaly perhaps relates to the lack of a significant difference between loans of different ethnic communities despite the fact that the respondents were mostly Bumiputeras with large loans. Again, the relationship was not strong enough to justify the hypothesis.

6.5 FACTOR ANALYSIS

As discussed in Chapter 5, 5.5.7.3, factor analysis was used to discover whether a small number of components or underlying factors accounted for most of the variance in the explanatory variables. In other words, to discover whether the explanatory variables could sensibly be grouped together to form ‘themes’ or ‘factors’. The method used was based on the principal components method or component analysis. Hair et al. (1995) emphasised that

The text is missing after the word "Hair et al. (1995) emphasised that".

For component analysis, the figure placed in the diagonal of the correlation matrix is
equal to unity. In doing this, it is assumed that the communalities are equal to 1.0, i.e., all of the variance is common. A varimax rotation was carried out to simplify the factor structure. Eleven variables were used and most of these were measured using a Likert scale.

In testing whether component analysis (hereafter refer to factor analysis) was appropriate for summarising the underlying factors (demand and supply factors, and characteristics of firms and OMs), the computation of correlation matrix was carried out on these eleven variables. These variables must be related to each other for the factor model to be appropriate. If visual inspection reveals no substantial number of correlations greater than 0.3, then factor analysis is probably inappropriate (Hair et al., 1995). As discussed in Chapter 5, 5.5.7.3, Kaiser-Meyer-Olkin (KMO) and Bartlett tests were used to summarise the entire correlation matrix. The results are reproduced in Table 6.50.

**Table 6.50: KMO and Bartlett Test results for the Utilisation of NPGS Loans**

<table>
<thead>
<tr>
<th>FACTOR ANALYSIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.62449</td>
</tr>
<tr>
<td>Bartlett Test of Sphericity = 196.38667, Significance = 0.00000</td>
</tr>
</tbody>
</table>

From Table 6.50, the Kaiser-Meyer-Olkin value for the utilisation of NPGS was 0.62449, indicating that the appropriateness of the data for factor analysis is 'mediocre' (Kaiser, 1974). The data was therefore barely adequate for use in factor analysis. Of the 11 variables, the factor analysis extracted four factors or components which explained 62.5 percent of the variance, as shown in Table 6.51. Four components were chosen because they had eigenvalues greater than 1.0, i.e., greater than the variance contributed by any one variable.

**Table 6.51: Component with Eigenvalue Greater than One**

<table>
<thead>
<tr>
<th>FACTOR</th>
<th>EIGENVALUE</th>
<th>PCT.OR VAR</th>
<th>CUM. VAR.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.29008</td>
<td>20.8</td>
<td>20.8</td>
</tr>
<tr>
<td>2</td>
<td>2.23304</td>
<td>20.3</td>
<td>41.1</td>
</tr>
<tr>
<td>3</td>
<td>1.28675</td>
<td>11.7</td>
<td>52.8</td>
</tr>
<tr>
<td>4</td>
<td>1.00671</td>
<td>9.7</td>
<td>62.5</td>
</tr>
</tbody>
</table>
The loadings on first four components after rotation are shown in Table 6.52 below.

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of interest</td>
<td>.85861</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low principal payment</td>
<td>.77775</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No Collateral/Security</td>
<td>.68704</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Turnover</td>
<td>.75030</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>.69923</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Qualification</td>
<td>.58954</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No alternative/choice</td>
<td>(0.54241)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finance Companies</td>
<td></td>
<td></td>
<td>.83645</td>
<td></td>
</tr>
<tr>
<td>Commercial Bank</td>
<td></td>
<td></td>
<td>.82017</td>
<td></td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td></td>
<td></td>
<td></td>
<td>(0.75764)</td>
</tr>
</tbody>
</table>

One variable (State) is omitted from Table 6.52 because all factor loadings are above 0.5. The task was to identify the four components. Factor 1 focuses on the 'demand side' of the NPGS, and it has most to do with the cost (interest rate) and collateral/security requirements by financial institutions. Studies conducted by Kanbur et al. (1995) and Boocock and Mohd Shariff (1996) also found cost (interest rate) and collateral/security factors had a negative relationship on the utilisation of NPGS loans. The 'low principal payment' factor is excluded from the analysis because it is included in the cost (interest rate) charged by financial institutions.

Factor 2 centres on the characteristics of the firms and OMs. 'No alternative/other choice' shows a strong negative association with size of firm, indicating that small firms which lack collateral/security might have to resort to NPGS loans, despite the pecking order theory. This confirms Hypotheses 2 above. However, this factor was not associated with the utilisation of NPGS loans.

Factor 3 reflects the supply of NPGS loans - the availability of CGC support through the commercial banks and finance companies.

Finally, Factor 4 relates to net profit margin, a factor separate from the other variables. Once again this factor was not found to be associated with the utilisation of the NPGS. (Net profit margin is discussed in relation to economic additionality Chapter 7.)
This component analysis was rotated using VARIMAX rotation, in an attempt to identify separate or distinct factors. The result of this factor analysis has, according to Hair et al. (1995), helped "to summarise the information contained in a number of original variables into a smaller set of new, composite dimensions or variates (factors) with a minimum loss of information, that is, to search for and define the fundamental constructs or dimensions assumed to underlie the original variables." My preliminary results on the factor analysis indicated that the four factors or components explain 62.5 percent of the overall variance on the utilisation of the NPGS loans. This figure is considered 'mediocre' but the data were adequate to address certain critical research questions.

6.6 SUMMARY

This chapter has analysed the data derived from the questionnaire survey, in particular it related the four main independent groups of factors or variables to the utilisation of NPGS loans (dependent variable).

The SPSS 'Frequencies' procedure was used to summarise the characteristics of firms and OMs, as well as finance and economic additionality. The statistical procedures outlined in Chapter 5 were then used to test the hypotheses, i.e., the relationships between the independent and dependent variables. Ten of the sixteen hypotheses were rejected.

The independent variables that did have a significant relationship with utilisation were the amount of security or collateral, limited company status, manufacturing sector, size of firm, use of external advisers for fund raising, and the existence of a written business plan.

There was anecdotal evidence from interviews with representatives of financial institutions that CGC loans are offered to pre-selected customers until quotas are exhausted but questionnaire responses suggested that NPGS loans do help borrowers lacking collateral. Limited companies are more likely to rely upon NPGS loans since their status gives credibility to lenders. Furthermore, they are less constrained by the
availability of collateral as compared to unincorporated firms in obtaining finance. Banks generally prefer to lend to manufacturing firms that have hard assets such as plant and equipment. The study also indicated that smaller firms are more dependent upon personal resources than larger firms (confirming the 'pecking order hypothesis). Firms using external advisers utilise NPGS loans to a greater extent. Finally, small firms with realistic and workable business plans increase their chances of obtaining NPGS loans.

Factor analysis was used to identify the relationships among the 11 independent variables and estimate the underlying factors and the contributions of each variable to the factors (termed loading). The preliminary results show that four factors or components explain 62.5 percent of the overall variance. The data were adequate to address certain critical research questions.

Chapter 7 will discuss finance and economic additionality and the cost of the NPGS to the Treasury. These are critical components in the effectiveness of the NPGS. The questionnaire responses will be used to support the case study analysis, where appropriate.

Notes

1. The old values of the variables were transformed into new values in the variables using the 'Recode Into Different Variable' procedure in the 'Transform' menu of SPSS for MS Windows. The old values of the variables will be retained and used in future research.

2. The findings of a major evaluation of the LGS in the UK (KPMG, 1999) only came to my attention after completion of my literature review and empirical survey.
CHAPTER 7

CASE STUDIES: ANALYSIS AND DISCUSSION

7.1 INTRODUCTION

The previous chapter analysed the data derived from the questionnaire study, focusing on the utilisation of the NPGS. The questionnaires provide quantitative data on the demand and supply factors, and the characteristics of the firms and OMs. This chapter concentrates not on utilisation, but on the effectiveness of the NPGS. As a first step, it assesses finance and economic additionality from the case studies, based on interviews with firms and their financial institutions, as well as key informants. (Full information on all fifteen case study firms is presented in Appendix 7.1). It was recognised that the level of finance and economic additionality could not be easily assessed using questionnaires. In-depth interviews provided the researcher with invaluable information on whether the NPGS provided a source of funds which would not otherwise have been available, or which would have been available only at a later date. The net cost is another element of the effectiveness of the NPGS. The researcher could have relied solely upon secondary data to investigate the net cost of the Scheme, but interviews with key informants yielded much important information. The informants also helped the researcher to understand the rationale of, for example, targeting loans to priority sectors, and gave the researcher an opportunity to explore ways in which the effectiveness of the NPGS could be enhanced.

7.2 FINANCE ADDITIONALITY

As discussed in Chapter 3, 3.3.4, the effectiveness of any loan guarantee scheme can be enhanced by increasing finance and economic additionality, and reducing displacement (Pieda, 1992). In reality, these outcomes are difficult to achieve. There tends to be a specified level of security/collateral required by financial institutions from borrowers, to reduce the incidence of defaults. Consequently, finance
additionality is reduced by denying finance to owners lacking security (Boocock and Mohd Shariff, 1996). An equilibrium is sought, whereby the incidence of default is minimised, without jeopardising finance and economic additionality.

These case studies are primarily concerned with establishing the level of finance additionality generated by the NPGS. In-depth interviews with fifteen firms and their financial institutions identified how much the NPGS loan formed as part of the total financial package made available, and enabled the researcher to estimate how much the financial institutions would have been able to lend in the absence of the NPGS. This research methodology has not previously been adopted in Malaysia (except in Boocock and Mohd Shariff, 1996) or in other developing countries. It is extremely labour intensive, but offers the chance to assess the operation of the Scheme in a far more rigorous way than relying upon questionnaire data.

There are statistical tools, for example NUDIST, that analyse the qualitative aspects of interviews. However, it was relatively straightforward to assess finance and economic additionality by summarising the themes explored in a semi-structured checklist of questions. It was not therefore considered necessary to utilise computer software in this instance.

7.2.1 Calculation of Finance Additionality

This sub-section attempts to assess finance additionality at the micro level. A series of questions, based on Figure 7.1, attempted to establish whether the case study firms provide additional or non-additional (zero additionality). In some cases, the level of finance additionality could only be classed as doubtful!
Three critical questions on the checklists used in the semi-structured interviews were used to gauge finance additionality. Question 25 for the borrowers (refer to Appendix 5.2) asked what alternatives were available if the application for the NPGS loan had not been approved, or if the NPGS facility had not existed. A follow-up Question 30 asked the borrowers whether they had free assets which could have been used to raise, for example, a conventional bank loan. Finally, Question 25 for the lenders (refer to Appendix 5.3) asked their views on the ability of firms to raise non-NPGS finance. The responses to these questions provided a rich source of data, summarised in Table 7.1.
Table 7.1: The NPGS: Finance Additionality (all figures: RM thousands)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding Package from Financial Institutions and others</th>
<th>NPGS loan</th>
<th>Total</th>
<th>FIs and others(^1) maxamt</th>
<th>Est. Add(^1) Amount ((\text{\textcurrency{RM}}))</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td></td>
<td>1,680</td>
<td>1,680</td>
<td>900</td>
<td>780 (46)</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>2,650</td>
<td>2,650</td>
<td>2,650</td>
<td>(0)</td>
</tr>
<tr>
<td>C</td>
<td>70</td>
<td>30</td>
<td>100</td>
<td>100</td>
<td>150 (60)</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>100</td>
<td>100</td>
<td>87</td>
<td>130 (13)</td>
</tr>
<tr>
<td>D</td>
<td>0</td>
<td>250</td>
<td>250</td>
<td>100</td>
<td>150 (60)</td>
</tr>
<tr>
<td>E</td>
<td>0</td>
<td>1,400</td>
<td>1,400</td>
<td>600</td>
<td>800 (57)</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>2,500</td>
<td>2,500</td>
<td>1,250</td>
<td>1,250 (50)</td>
</tr>
<tr>
<td>G</td>
<td>0</td>
<td>67</td>
<td>67</td>
<td>67</td>
<td>(0)</td>
</tr>
<tr>
<td>H</td>
<td>0</td>
<td>130</td>
<td>130</td>
<td>100</td>
<td>200 (23)</td>
</tr>
<tr>
<td>I</td>
<td>0</td>
<td>500</td>
<td>500</td>
<td>100</td>
<td>400 (80)</td>
</tr>
<tr>
<td>J</td>
<td>170</td>
<td>100</td>
<td>270</td>
<td>170</td>
<td>100 (37)</td>
</tr>
<tr>
<td>K</td>
<td>0</td>
<td>240</td>
<td>240</td>
<td>100</td>
<td>140 (58)</td>
</tr>
<tr>
<td>L</td>
<td>0</td>
<td>180</td>
<td>180</td>
<td>110</td>
<td>70 (39)</td>
</tr>
<tr>
<td>M</td>
<td>0</td>
<td>80</td>
<td>80</td>
<td>40</td>
<td>40 (50)</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>212</td>
<td>212</td>
<td>138</td>
<td>74 (35)</td>
</tr>
<tr>
<td>O</td>
<td>0</td>
<td>250</td>
<td>250</td>
<td>165</td>
<td>85 (34)</td>
</tr>
<tr>
<td>All</td>
<td>240</td>
<td>10,369</td>
<td>10,609</td>
<td>6,677</td>
<td>3,932 (37)</td>
</tr>
</tbody>
</table>

Notes:
1. The sixteen rows show the calculations for the 15 firms in the case studies. Firm C had gained NPGS backing from two financial institutions.
2. Financial institutions and others including government bodies = an estimate of the maximum amount available of credit from financial institutions and others, if the NPGS had not existed.
3. Est. Add. = the estimated level of finance additionality, after taking account the amount that the financial institutions and others could have advanced.


Three examples are now worked through, to illustrate how finance additionality was calculated.

Firm A (Additional)

In 1990, Firm A requested a RM1.3 million loan from Bank M. This was rejected. At that time, Firm A was a manufacturing company with no track record and insufficient security/collateral. The security/collateral available at the time of the NPGS application consisted of property (approximate value, RM1.0 million), a debenture over fixed and floating assets, and joint and several guarantees from the Directors. In March 1995, Firm A was given a NPGS loan of RM1.68 million. Bank A chose the NPGS loan to enhance its inadequate security position. In the absence of the NPGS, the firm would have been unlikely to raise the full amount of the required loan. Bank A stated:

Compared to the original request of RM1.3 million, a lower amount of RM1900,000 would have been advanced with the security (excluding CGC guarantee) and terms.
and conditions remaining more or less the same.

Bank A would have been able to lend RM0.9 million if NPGS support had not been available. There were insufficient alternative sources of finance available to Firm A, hence the finance additionality provided by the NPGS was 46 percent.

Two more non-NPGS loans, amounting in total to RM5.646 million, were granted in June and October 1996, to provide for additional working capital and for investment in productive capacity. Bank A provided these conventional loans because of Firm A's experienced management team, product innovation, marketable products, skilled workforce and optimal production capacity.

Firm B (Zero Additionality)

At the time of its application for the NPGS loan of RM500,000, Firm B could have approached other government agencies such as MARA (Council for Indigenous Peoples), PUNB (National Entrepreneurs Investment Berhad) and Bank Pembangunan dan Infrastruktur Malaysia Berhad (Malaysian Development and Infrastructure Bank Berhad). PUNB already had an interest in the firm (holding 28.6 percent of the shares). Bank B could have advanced a conventional loan, albeit at a higher interest rate, as it felt that Firm B was a well-managed company with a sound track record and prospects, despite the fact that the existing collateral (a debenture covering the fixed and floating assets of the firm and a guarantee from the directors) was insufficient. However, Bank B directed Firm B to the NPGS because the borrowing would be marginally cheaper. The NPGS-backed facilities were project-linked, and the CGC guarantee was released upon completion of the project.

Firm C (Doubtful Additionality)

The OM had previously requested a RM10,000 loan from various financial institutions but his application was rejected. In July 1994, the OM approached Bank C and applied for a RM30,000 loan. His application was granted under the Block Guarantee Scheme of the NPGS. He also received a RM70,000 loan from a government agency (MARA) to purchase optometry equipment. The MARA interest rate was subsidised and much cheaper than conventional loan rates, as part of a Government effort to help Bumiputera OMs to purchase fixed assets.
Firm C was asked whether it would have been able to get a conventional loan in the absence of the NPGS. Firm C felt that it would not have been able to borrow from financial institutions. However, Bank C stated that it might have granted a non-NPGS loan to Firm C at a higher interest rate. This would imply zero additionality but the precise figure was difficult to establish.

A second NPGS loan of RM 100,000 was later sanctioned by a different bank.

7.2.2. Finance Additionality as a Measure of Effectiveness

The effectiveness of the NPGS depends upon achieving a high level of finance additionality, as discussed in Chapter 4, S.4.4.3.

Table 7.1 shows that three firms experienced zero additionality. Twelve firms experienced some degree of finance additionality, the highest being Firm I (80 percent) and the lowest Firm C (13 percent). The total finance additionality for this sample was 37 percent. Boocock and Mohd Shariff (1996), in their pilot study of the old PGS in the states of Kedah and Penang, found that 63 per cent of the finance provided was additional. However, they estimated that the overall finance additionality for the same sample, taking into account funds available from non-financial institutions, would have fallen below 50 percent. Studies conducted by NERA (1990) and Pieda (1992) on the UK Loan Guarantee Scheme, showed finance additionality of 48 percent and 68 percent respectively. The low level of finance additionality for the Malaysian studies stems from the ability of case study firms to obtain finance from internal sources, their present banks and, especially, from other financial institutions (both public and private).

The need to provide some security/collateral in support of NPGS borrowing was another reason for the low finance additionality in my case studies: banks frequently switched to the NPGS to bolster a marginal collateral position. Table 7.2 below shows that all but one of my case study firms had to provide some sort of security/guarantee in order to obtain their NPGS loans. The most common types of collateral were mortgages on property (35 percent), fixed deposits (25 percent) and personal guarantees/other guarantees (20 percent). Some firms provided more than one form of
security. The OM of Firm G commented that:

NPGS loans without any collateral are not possible to my knowledge.

These comments confirm the findings of Boocock and Mohd Shariff (1994) who found that 93.8 percent of old PGS borrowers had given some form of collateral.

Table 7.2: Type of Security/Guarantees Required for NPGS Borrowing (Case Studies)

<table>
<thead>
<tr>
<th>Type of security/guarantees</th>
<th>Number of responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortgage on properties</td>
<td>7</td>
<td>35.0</td>
</tr>
<tr>
<td>Fixed deposits</td>
<td>5</td>
<td>25.0</td>
</tr>
<tr>
<td>Personal guarantees/other guarantors</td>
<td>4</td>
<td>20.0</td>
</tr>
<tr>
<td>Debentures</td>
<td>2</td>
<td>10.0</td>
</tr>
<tr>
<td>Mutual shares</td>
<td>1</td>
<td>5.0</td>
</tr>
<tr>
<td>Unsecured</td>
<td>1</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Number of Responses = 20

The researcher then tried to compare the findings from the case studies with results obtained from the questionnaire survey. Both sources of data identified the need for borrowers to provide some sort of security/guarantee. Table 7.3(a) below illustrates that a clear majority of borrowers (80.4 percent) in the questionnaire survey had to provide security in order to obtain their NPGS loan. Only 19.6 percent of the borrowers did not have to provide any collateral.

In contrast to the case studies, Table 7.3(b) below shows that the most common types of collateral given in the questionnaire survey were personal guarantees/other guarantors (42 percent), fixed deposits (31.8 percent) and mortgages on property (26.1 percent). Again some respondents provided more than one type of collateral.

Table 7.3(a): Sort of Security/Guarantees Required for NPGS Borrowing (Questionnaire Survey)

<table>
<thead>
<tr>
<th>Security/guarantees needed for NPGS Loans</th>
<th>Number of responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsecured</td>
<td>18</td>
<td>19.6</td>
</tr>
<tr>
<td>Secured</td>
<td>74</td>
<td>80.4</td>
</tr>
<tr>
<td>Total Respondents</td>
<td>92</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Table 7.3(b): Type of Security/Guarantees Required for NPGS Borrowing
(Questionnaire Survey)

<table>
<thead>
<tr>
<th>Type of security/guarantees</th>
<th>Number of responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal guarantees/other guarantors</td>
<td>37</td>
<td>42.0</td>
</tr>
<tr>
<td>Fixed deposits</td>
<td>28</td>
<td>31.8</td>
</tr>
<tr>
<td>Mortgage on properties</td>
<td>23</td>
<td>26.1</td>
</tr>
</tbody>
</table>

Number of Responses = 88

Table 7.4 below uses the questionnaire data to show the ability of firms to raise finance in the absence of the NPGS. It should be noted that the data in Table 7.4 is based on the number of firms, not the value of loans. Nearly 54.4 percent of the firms experienced some degree of finance additionality (38.0 percent stated that they could not have raised the finance, 16.4 percent stated they would have raised less). These figures of 38.0 percent and 16.4 percent represent 100 percent finance additionality and partial finance additionality (Pieda, 1992). If finance additionality also includes the ability of firms to borrow the funds immediately, then the proportion of firms experiencing some form of finance additionality would be much higher at 78.3 percent.

Table 7.4: Ability of Firms to Raise Finance in Absence of NPGS

<table>
<thead>
<tr>
<th>Ability of Firms to Raise Finance in Absence of NPGS</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>No, I could not have raised the finance</td>
<td>35</td>
<td>38.0</td>
<td>38.0</td>
</tr>
<tr>
<td>No, I would have raised less</td>
<td>15</td>
<td>16.4</td>
<td>54.4</td>
</tr>
<tr>
<td>Yes, from alternative sources with a delay</td>
<td>22</td>
<td>23.9</td>
<td>78.3</td>
</tr>
<tr>
<td>Yes, from alternative sources without delay</td>
<td>8</td>
<td>8.7</td>
<td>87.0</td>
</tr>
<tr>
<td>Yes, from the same source without delay</td>
<td>12</td>
<td>13.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

The aggregate data on finance additionality from the questionnaires are presented in Appendix 7.2. In the Appendix, finance additionality is expressed in terms of value, and it amounts to 54 percent, higher than the 37 percent found in the case studies. This is to be expected, as the additionality derived solely from the questionnaires does not take into account the views of the financial institutions. The latter were able to confirm the borrowing capacity of the case study firms in an objective independent manner.

The results from both data sources clearly suggest that some degree of finance additionality is found in NPGS loans. The 37 percent finance additionality achieved in
the case studies, according to Bannock and Partners (1997), is comparable to other guarantee schemes that are properly designed and implemented. Such schemes typically yield additionality of around 30-50 percent. However, as discussed in Chapter 3, S.3.3.5, Levitsky (1997) and Bannock and Partners (1997) emphasise that "not less than 60 percent of loans should be additional preferably nearer 80 or even 90 percent. If additionality is below these targets then appropriate action should be taken".

The relatively low level of finance additionality in the case studies stems from the ability of firms to obtain finance from alternative sources. A number of firms could have obtained finance from internal sources, relatives and personal contacts, their present FIs, or other FIs (both public and private). Some case study firms had financed the early stage of their businesses through personal savings and loans from relatives/friends. The majority of the Bumiputera firms in my case studies had received financial assistance, other than NPGS-backed facilities, through Government agencies. The finance provided by these Government agencies was mainly used to purchase plant and equipment, whereas the bulk of the NPGS-backed facilities were used for working capital. This issue will be discussed in more detail in Section 7.3.1.

There were three instances (Firms B, C, and G) of zero finance additionality. The banks would normally have been prepared to grant the facility; they would have given a higher than normal value to the offered security (Firms B and C); or, there were assets in the background which could have been used to secure the borrowing (Firm G).

The requirement for some sort of security/collateral from the borrowers was another reason for the low finance additionality. My case study firms (except for Firm C) all had to provide some form of collateral in order to obtain their NPGS loans. Levitsky (1997b) stated that some collateral should be obtained from borrowers (even if inadequate to cover the whole loan), in order for the guarantee scheme to operate in the best manner. However, this requirement does deny guarantee support to firms lacking security. Such firms would be expected to have higher additionality than those with security. However, a high default rate is associated with cases of high finance additionality, typically lending to OMs with no record of achievement, or to
businesses with little prospect of generating high returns (Pieda, 1992). In my questionnaire survey, firms with partial finance additionality accounted for the largest number of additional jobs and had the highest ratio of additional employment to total employment. The issue of partial finance additionality will be discussed in relation to economic additionality below.

According to Morsman (1986), asymmetric information also influences the lenders’ decision to obtain collateral from NPGS borrowers. Some of the case studies were new or start-up firms and the OMs had not much idea of whether or not their business would succeed. By contrast, the lenders had prior knowledge of similar businesses at that particular stage of development (Storey, 1994a). There is also evidence from the case studies that larger loans given to bigger and older firms tend to have a higher degree of finance additionality. The issue of track record is also important here. New or start-up firms require the CGC guarantee to counter the impact of asymmetric information. Once a firm is established, a good working relationship with a financial institution should develop.

The majority of case study firms have good banking relationships with their FIs, through prompt payment of interest and capital commitments on the due dates and regular submission of business plans. Their FIs were willing to provide additional non-NPGS finance after the NPGS-backed facilities were exhausted. These findings confirm that sustained banking relationships are important to reduce asymmetric information and are associated with greater availability of capital, less frequent pledging of collateral, lower charges for credit lines and lower monitoring requirements (Binks & Ennew, 1996; Blackwell & Winters, 1997).

7.3 ECONOMIC ADDITIONALITY

The previous section was concerned with finance additionality. According to NERA (1990), as discussed in Chapter 4, finance additionality “is a necessary pre-condition for economic additionality because if the Loan Guarantee Scheme has not resulted in extra funds becoming available to a firm, it is unlikely to have had any impact on its level of activity.” In view of the problems in establishing the precise level of finance
additionality, this pre-condition has been ignored for this study. Moreover, the fact that finance is additional does not automatically mean that increased employment, profits or turnover are generated. In the case studies and the questionnaire survey, the researcher found some exceptions:

- Certain firms, for example, Firm J had defaulted after the loan drawdown;
- Displacement effects occurred in certain sectors of the economy, especially the general business sector (Mohd Shariff and Boocock, 1999).

The concept of economic additionality can be divided into two broad areas: the direct benefit for the firms in terms of increased employment, profits or turnover; and the indirect impact on the wider economy (NERA, 1990)

7.3.1 Assessment of Economic Additionality

The researcher started by estimating the direct benefit to NPGS recipients. From the case studies, all the borrowers claimed that finance was used in accordance with the original application. Table 7.5 shows that nearly half (46.7 percent) used the NPGS loan solely for working capital purposes. These results are in substantial agreement with those of NERA (1990). A further 6 firms (40.0 percent) used the funds for some combination of working capital, purchase of plant and machinery, and product development.

<table>
<thead>
<tr>
<th>Use of NPGS Loans</th>
<th>No. of Responses</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working capital only</td>
<td>7</td>
<td>46.7</td>
</tr>
<tr>
<td>Working capital &amp; purchase of plant and machinery</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Working capital &amp; purchase of plant &amp; machinery &amp; Product development</td>
<td>3</td>
<td>20.0</td>
</tr>
<tr>
<td>Other property cost and product development</td>
<td>2</td>
<td>13.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

When the funds are applied for working capital purposes, Boocock and Mohd Shariff (1995) concluded that it is more difficult to establish a link between funding and subsequent progress, compared to when the funds are used (say) to purchase fixed assets or acquire another business. Furthermore, the provision of funds for working
capital purposes is probably less likely to lead to sustainable rises in employment and output than capital expenditure.

The types and uses of the NPGS-backed facilities for the case study firms are shown in Table 7.6.

<table>
<thead>
<tr>
<th>Firms</th>
<th>Types</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Term Loan, Multiple Trade Line, Letter of Credit, Trust Receipts, Shipping Guarantee, Letter of Guarantee, Banker Acceptances</td>
<td>purchase of plant and machinery, working capital</td>
</tr>
<tr>
<td>B</td>
<td>Term Loan, Overdraft and Letter of Credit</td>
<td>purchase of plant and machinery, working capital</td>
</tr>
<tr>
<td>C</td>
<td>Overdraft</td>
<td>working capital</td>
</tr>
<tr>
<td>D</td>
<td>Overdraft and Term Loan</td>
<td>working capital</td>
</tr>
<tr>
<td>E</td>
<td>Overdraft, Letter of Credit</td>
<td>working capital, product development</td>
</tr>
<tr>
<td>F</td>
<td>Overdraft, Trust Receipts, Bankers Guarantee</td>
<td>working capital</td>
</tr>
<tr>
<td>G</td>
<td>Overdraft</td>
<td>working capital</td>
</tr>
<tr>
<td>H</td>
<td>Overdraft</td>
<td>working capital, purchase of plant and machinery</td>
</tr>
<tr>
<td>I</td>
<td>Overdraft</td>
<td>working capital</td>
</tr>
<tr>
<td>J</td>
<td>Overdraft</td>
<td>working capital</td>
</tr>
<tr>
<td>K</td>
<td>Overdraft, Term Loan</td>
<td>working capital, purchase of plant and machinery and product development</td>
</tr>
<tr>
<td>L</td>
<td>Term Loan</td>
<td>working capital, purchase of plant and machinery and market expansion</td>
</tr>
<tr>
<td>M</td>
<td>Overdraft</td>
<td>working capital</td>
</tr>
<tr>
<td>N</td>
<td>Overdraft</td>
<td>working capital</td>
</tr>
<tr>
<td>O</td>
<td>Overdraft, Term Loan</td>
<td>working capital, purchase of plant and machinery, other property costs and product development</td>
</tr>
</tbody>
</table>

The researcher attempted to link the NPGS funding to the subsequent progress of the firm. Most of the firms used overdraft facilities to pay for raw materials and to meet the demands of trade creditors. The majority of manufacturing firms used term loans for the purchase of plant and machinery (Firms A, B, K and L). Only one firm (aquaculture farming) used its term loan to invest in plant and machinery, other property and product development.

The provision of term loans to four firms (A, B, K, and O) led to sustainable rises in employment (85 to 183 employees) and turnover (RM11.6 million to RM14.805 million).
million) in the third year after the NPGS-backed facilities was granted, as shown in Table 7.7. All four firms were limited companies and three of them were engaged in manufacturing. The representatives from financial institutions highlighted the importance of extending the term of NPGS-backed loans from 5 to 10 years, because the five year period was too short for firms to reinvest their profits and increase employment and turnover. Furthermore, most firms were just beginning to organise their businesses in the two year period after the term loan was disbursed and could only generate profits from year three onwards.

Table 7.7: Substantial Economic Additionality: Selected Firms

<table>
<thead>
<tr>
<th>Firm</th>
<th>Legal Status</th>
<th>Business Activity</th>
<th>Employment (No. of Employees) Before</th>
<th>Employment (No. of Employees) After</th>
<th>Turnover (RM'000) Before</th>
<th>Turnover (RM'000) After</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Limited Company</td>
<td>Manufacturing</td>
<td>20</td>
<td>70</td>
<td>5.100</td>
<td>5.400</td>
</tr>
<tr>
<td>B</td>
<td>Limited Company</td>
<td>Manufacturing</td>
<td>45</td>
<td>75</td>
<td>3.900</td>
<td>4.300</td>
</tr>
<tr>
<td>K</td>
<td>Limited Company</td>
<td>Manufacturing</td>
<td>15</td>
<td>29</td>
<td>2.500</td>
<td>5.000</td>
</tr>
<tr>
<td>O</td>
<td>Limited Company</td>
<td>Aquaculture</td>
<td>5</td>
<td>9</td>
<td>100</td>
<td>105</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>85</td>
<td>183</td>
<td>11,600</td>
<td>14,805</td>
</tr>
</tbody>
</table>

Taking the case studies as a whole, Table 7.8 below shows the economic additionality measured by employment in the one year period from 1996-1997. There were 395 employees in the case study firms, of which 154 were considered to be additional jobs resulting from the existence of the NPGS. This represented additional employment of 63.9 percent across the sample firms. The researcher found that those firms with partial finance additionality accounted for the largest number of additional jobs, 120. However, those with zero finance additionality had the highest ratio of additional employment to total employment. Two firms (B and C) accounted for additional employment of 44 workers after the NPGS drawdown, but Firm G defaulted and thus resulted in the loss of 10 jobs. The net gain was still 40.5 percent.

The majority of the case study firms had given some sort of security/guarantee, hence additionality was never 100 percent. This is somewhat disappointing, as NERA (1990) found that firms having 100 percent additionality accounted for the largest number of additional jobs and also had the highest ratio of additional employment to total employment. My findings are out of line with NERA, but my sample is much smaller and it is difficult to compare the two studies.
Table 7.8: Employment Additionality: Total for Case Studies

<table>
<thead>
<tr>
<th></th>
<th>(1) Total</th>
<th>(2) Additional</th>
<th>(2) + (1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No.</td>
<td>%</td>
<td></td>
</tr>
<tr>
<td>All firms¹</td>
<td>241</td>
<td>154</td>
<td>63.9</td>
</tr>
<tr>
<td>Firms: Finance 100% additionality</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Firms: Finance additionality partial</td>
<td>191</td>
<td>120</td>
<td>62.8</td>
</tr>
<tr>
<td>Firms: Finance not additional²</td>
<td>50</td>
<td>34</td>
<td>68.0</td>
</tr>
</tbody>
</table>

Note:
1. This data are based on the year after the NPGS loan was financed.
2. The firms include Firm J, classified as Non-Performing.

The economic additionality for the case study firms was then compared with economic additionality estimated from the questionnaire data.

Figure 7.2: Employment Additionality: Total For Survey

The questionnaire responses also showed an improvement in employment before and after the NPGS loans were granted. A total of 1,413 employees before receipt of the NPGS loans had increased to 2,073 employees over a period of one year, an addition of 660 (46.7 percent) - refer to Figure 7.2. The case studies employment additionality (63.9 percent) differed from the questionnaire survey. Questionnaire respondents with partial finance additionality generated employment additionality of 72.8 percent,
while 100 percent finance additionality and zero finance additionality yielded 48.0 percent and 30.4 percent employment additionality (Table 7.9). This profile was more in line with the researcher's expectations.

In the questionnaire responses, firms with partial finance additionality accounted for the largest number of additional jobs and the highest ratio of additional employment to total employment (252 and 72.8 percent respectively). In cases of partial additionality, NPGS-backed firms usually had to offer some sort of security/guarantee to financial institutions; manufacturing firms achieved the highest number of additional jobs. The findings also confirm that SMEs in the manufacturing sector create employment opportunities; they generated almost 60 percent of net employment creation during the period 1991-1995 (Moha Asri, 1999).

Table 7.9: Employment Additionality: Total for Questionnaire Survey

<table>
<thead>
<tr>
<th>(1) Total</th>
<th>(2) Additional</th>
<th>(2) +1</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>All firms'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1413</td>
<td>660</td>
<td>46.7</td>
</tr>
<tr>
<td>Firms: 100% finance additionality</td>
<td>477</td>
<td>229</td>
</tr>
<tr>
<td>Firms: Partial finance additionality</td>
<td>346</td>
<td>252</td>
</tr>
<tr>
<td>Firms: Finance not additional</td>
<td>588</td>
<td>179</td>
</tr>
</tbody>
</table>

Note:
1. The employee data are based on the accounting year after the NPGS loan was financed.
2. The firms include Firm J that was subsequently classified as Non-Performing.

Having discussed economic additionality of recipient firms in terms of employment, the analysis now focuses on sales and net profit margins, two more indicators which can be used to measure the impact of the NPGS.
Figure 7.3: NPGS-Backed Facilities: Impact on Turnover (%)

<table>
<thead>
<tr>
<th>Increased by 1-5%</th>
<th>Increased by 6-10%</th>
<th>Increased by 11-15%</th>
<th>Increased by 16-20%</th>
<th>More than 20%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case studies</td>
<td>2</td>
<td>5</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Survey</td>
<td>17</td>
<td>21</td>
<td>9</td>
<td>12</td>
</tr>
</tbody>
</table>

Notes:
1. The data are based on a one year period
2. Breakdown of 13 increases in turnover for the case study firms
3. Breakdown of 81 increases in turnover for the survey firms

Figure 7.3 depicts the increases (in percentage terms) of the case study firms reporting that turnover had increased. Five firms (33.3 percent) increased their turnover by 6 to 10 percent, while six firms (46 percent) increased their turnover by more than 20 percent per annum. Of those six firms, three (E, F and K) are from the manufacturing sector. Firms E and K operate in furniture manufacturing and their turnover is mainly derived from export markets. Firm F supplies switch gears and other electrical products to the industrial sector. Firms E, F and K used the NPGS-backed facilities for working capital, purchase of plant and machinery, and product development purposes. The working capital requirements were mainly to finance international trade, whereas term loans were utilised for the purchase of plant and machinery and product development. The NPGS appears to have had a significant impact on the progress of these firms and benefited the wider economy by generating exports.

The other three high growth firms (C, G, and I) are involved in general business. Firm
C's higher turnover stems from the opening of more outlets in the state of Perak. Firm G is involved in computer services and derives its growth principally from an increase in the number of contracts to supply computers to the public and private sectors, as well as consultancy and training support to its clients. Firm I is involved in wholesaling and has captured sales from other competitors in the state of Penang. The impact of these three firms on the wider economy is reduced as their competitors are situated in their own or neighbouring States.

The questionnaire data (Figure 7.3) reveals that 59 firms (64.1 percent) in the survey had increased turnover by less than 20 percent per annum, while 22 firms (23.9 percent) achieved more than 20 percent. 8 firms (8.7 percent) reported no differences in their turnover, while 3 firms (3.3 percent) reported a small decrease in turnover.

Figure 7.4 below shows that nine of the eleven case study firms (81.8 percent) reporting enhanced profit margins experienced an increase of less than 20 percent per annum. Only two firms (C and F) increased net profit margins by more than 20 percent. Firm C, the only Bumiputera-owned shop in the Chinese-dominated optometry business, has benefited from an effective marketing campaign. Firm F manufactures high technology switch gears for a variety of industrial sectors, and it has a reputation for a high level of technical know-how. I judge that the performance of Firm F is a 'model' of how NPGS funding can assist high technology firms.

The questionnaire respondents also claimed to have achieved improvements in profit margins. Figure 7.4 shows that 63 firms (68.5 percent) increased net profit margins by less than 20 percent per annum, while only 10 firms (10.9 percent) achieved an increase in net profit margin of more than 20 percent. 19 firms (20.6 percent) reported no change in their net profit margins. As discussed in Chapter 6, S.6.3.1, over one-half (60.9) percent of sample firms are from the non-manufacturing sector. Of the 10 firms increasing their net profit margin by more than 20 percent, 8 are from the non-manufacturing and 2 firms are from the manufacturing sector. This split was somewhat surprising. I would have expected the manufacturing firms to feature more strongly. The growth in profit of the non-manufacturing firms probably results from displacing other firms within their States in Malaysia. High growth firms were mostly in construction, a very volatile sector of the economy.
The second element of economic additionality takes account of displacement effects, i.e., whether additional activity in the assisted firms translates into corresponding increases in the level of activity in the SME sector or the economy as a whole. The analysis here is confined to the case study firms. Seven of the 15 firms (46.7 percent) were from the manufacturing sector, while the remainder were engaged in general business. Economic additionality was found to be low for general business firms, especially where retailers were involved. Manufacturing firms generally have a greater economic impact and create jobs (NERA, 1990; Mohd Shariff and Boocock, 1999). At the national level, five of the manufacturing firms export their products or offer substitutes for imports. Two of the five firms are appointed as partners or agents to manufacture high technology equipment for use in the domestic market. The other three export furniture and plastic materials to overseas markets. In addition, the aquaculture firms export tiger prawns to overseas markets. In the general business sector, the NPGS loans largely displaced activity from one local firm to another.
A more tenuous strand of indirect economic additionality concerns the ability of SMEs to create a more dynamic and innovative society. In my case studies, the evidence of 'dynamism' in NPGS-assisted firms was quite modest. Table 7.10 below shows that only eight out of the fifteen respondents had undertaken major investment projects or been involved in product/process innovation.

Firm B is a good example of an innovative firm. It has undertaken a number of major investment projects during the last three years. These include the manufacture and installation of telecommunication towers for the Ministry of Finance in Sabah and Sarawak. Since the NPGS loan was granted, Firm B has been involved in 29 projects, worth RM6.3 million. Some of these major projects are shown in Appendix 7.3. With the Malaysian Government's new definition of an SME, Firm B is now classed as a medium-sized firm, hence it will be able to attract more funds to carry out future projects.

**Growth**

Barkham et al. (1996) used employment change over a three year period as a measure of growth and divided firms into three categories:

1. Fast-growth (100% employment growth or more)
2. Medium/slow-growth (1-99% employment growth)
3. Static/declining (zero or negative employment change)

I also used these measures of growth to classify my case study firms. Growth was measured by the increase in employment over a three year period to March 1998 (the date the interviews were carried out) – see Table 7.10. This was a straightforward calculation for those respondents whose NPGS loan covered the whole three year period (1995-1997).
Table 7.10: Characteristics of Firms

<table>
<thead>
<tr>
<th>Case</th>
<th>Industry</th>
<th>Legal Status</th>
<th>Date of Establishment</th>
<th>Employees (Number)</th>
<th>Innovation</th>
<th>Growth</th>
<th>NPGS loan amt (RM1000) and approved date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Plastic packaging manufacture</td>
<td>Limited Company</td>
<td>1990</td>
<td>70</td>
<td>Yes</td>
<td>**</td>
<td>1,689 &amp; Mar95 1,997 &amp; Dec95</td>
</tr>
<tr>
<td>B</td>
<td>Engineering manufacture, trading &amp; services</td>
<td>Limited Company</td>
<td>1990</td>
<td>75</td>
<td>Yes</td>
<td>∙</td>
<td>650 &amp; Jan95 2,000 &amp; July95</td>
</tr>
<tr>
<td>C</td>
<td>Optometry centre</td>
<td>Sole Proprietor</td>
<td>1992</td>
<td>15</td>
<td>Yes</td>
<td>**</td>
<td>30 &amp; July94 100 &amp; Aug95</td>
</tr>
<tr>
<td>D</td>
<td>Travel agent</td>
<td>Limited Company</td>
<td>1983</td>
<td>9</td>
<td>No</td>
<td>↓</td>
<td>300 &amp; Feb95 250 &amp; Jan96</td>
</tr>
<tr>
<td>E</td>
<td>Furniture manufacture</td>
<td>Limited Company</td>
<td>1981</td>
<td>40</td>
<td>Yes</td>
<td>**</td>
<td>1,400 &amp; June97</td>
</tr>
<tr>
<td>F</td>
<td>Switch gears manufacture</td>
<td>Limited Company</td>
<td>1988</td>
<td>55</td>
<td>Yes</td>
<td>**</td>
<td>2,500 &amp; Aug97</td>
</tr>
<tr>
<td>G</td>
<td>Computer services</td>
<td>Sole Proprietor</td>
<td>1990</td>
<td>9</td>
<td>No</td>
<td>∙</td>
<td>267 &amp; May97</td>
</tr>
<tr>
<td>H</td>
<td>Construction</td>
<td>Sole Proprietor</td>
<td>1994</td>
<td>8</td>
<td>No</td>
<td>∙</td>
<td>130 &amp; May97</td>
</tr>
<tr>
<td>I</td>
<td>Wholesale distribution</td>
<td>Sole Proprietor</td>
<td>1985</td>
<td>9</td>
<td>No</td>
<td>∙</td>
<td>500 &amp; Jan96</td>
</tr>
<tr>
<td>J</td>
<td>Furniture manufacture</td>
<td>Limited Company</td>
<td>1994</td>
<td>19</td>
<td>No</td>
<td>↓</td>
<td>170 &amp; Jan96</td>
</tr>
<tr>
<td>K</td>
<td>Furniture manufacture</td>
<td>Sole Proprietor</td>
<td>1989</td>
<td>29</td>
<td>Yes</td>
<td>*</td>
<td>240 &amp; Jun96</td>
</tr>
<tr>
<td>L</td>
<td>Soya sauce manufacture</td>
<td>Partnership</td>
<td>1988</td>
<td>33</td>
<td>Yes</td>
<td>*</td>
<td>180 &amp; Feb97</td>
</tr>
<tr>
<td>M</td>
<td>Pharmam-teucal shop</td>
<td>Sole Proprietor</td>
<td>1973</td>
<td>6</td>
<td>No</td>
<td>↓</td>
<td>80 &amp; Jan97</td>
</tr>
<tr>
<td>N</td>
<td>Stationery shop</td>
<td>Sole Proprietor</td>
<td>1987</td>
<td>6</td>
<td>No</td>
<td>*</td>
<td>212 &amp; Dec96</td>
</tr>
<tr>
<td>O</td>
<td>Aquaculture farming</td>
<td>Limited Company</td>
<td>1992</td>
<td>9</td>
<td>Yes</td>
<td>*</td>
<td>85 &amp; Nov97</td>
</tr>
</tbody>
</table>

Notes
1. **fast-growth; *medium/slow growth; ↓static/declining
2. The NPGS was launched on 1 March 1994
3 and 4. Firms C and D had sought NPGS loans from two financial institutions.
5. Firm J’s NPGS loan was categorised as non-performing in June 1997.

The measurement of growth for other respondents was difficult, for example, if they received the NPGS loan during late 1997. However, in some cases, the researcher was able to assess their short-run growth potential; for example, if they had exported products, introduced new technology and or injected more personal capital since receiving NPGS-backing. Three brief summaries of fast growth firms are given below.

Since receiving the NPGS loan in June 1997, employment in Firm E has grown from 20 to 40 people (100 percent). It has been able to employ more people because of
demand from overseas for its products and the competitiveness of the Malaysian Ringgit. The firm has been able to penetrate the export market for furniture (stools and chairs) and 80 percent of its increased sales were in overseas markets.

Firm A has increased its workforce from 20 to 70 employees (250 percent growth) since receiving its NPGS loan in March 1995. Firm A achieved rapid growth by producing cleanroom environment materials for multinational companies in the semiconductor electronic and industrial packaging industries. The firm has introduced new technology to manufacture air bubblepak, expanded polyethylene foam and laminated products.

Firm C has grown rapidly from one to three outlets, and increased its workforce from 6 to 15 employees (150 percent). An injection of the OM's capital input into the business motivated him to seek growth actively as a means of increasing his return on capital.

In summary, the results for all the case study firms suggest that economic additionality is low for general business and high for manufacturing firms. There were 395 employees in the case study firms, of which 154 jobs resulted from the existence of the NPGS. Those case study firms with partial finance additionality generate the largest number of additional jobs and also have the highest ratio of additional employment to total employment. Manufacturing firms generally have a greater economic impact and create jobs. Economic additionality was found to be low where general business firms, especially retailers are involved. In the general business sector, the NPGS largely displaced activity from one local firm to another. The NPGS did have some impact on the performance of high technology firms and it enabled such firms to progress rapidly.

In terms of the innovation and 'dynamism' of the NPGS-assisted firms, manufacturing firms contributed significantly but those in the general business sector generally failed to do so. Some of the NPGS-backed firms showed a very positive attitude towards growth. For example, Firm E had increased its workforce significantly and begun to export to overseas.
The third and final element of the effectiveness of the NPGS is the net cost of operating the Scheme.

The costs of any guarantee scheme - administering the scheme and settling claims arising from bad debts - can be offset to an extent by the premiums charged to borrowers for the guarantees and security realisations. The gap between income and expenditure for any individual scheme will principally depend upon: the default rate of assisted firms; the premium charged; the percentage of cover offered by the guarantee; and, the contribution sought from private sector financial institutions (Boocock and Mohd Shariff, 1994).

As discussed in Chapter 4, S4.3.6, the net cost of the NPGS can be assessed by deducting claims paid by CGC, and the cost of running its offices from the income from guarantee fees, interest earned on CGC funds and the proceeds of security realisations. The CGC's operating revenue, comprising mainly guarantee fees and interest income, increased from RM24.1 million in 1996 to RM53.4 million in 1997. With operating expenses (including office expenses) amounting to RM5.7 million, operating profit for 1997 totalled RM49.6 million. When interest income amounting to RM34.6 million was added, the total surplus for the year reached RM84.2 million (CGC, 1997). Thus CGC, in theory, should have been able to settle any reasonable claims for payment from the financial institutions.

Such claims arise from non-performing loans, a problem which has long been a sensitive issue for the CGC (Levitksy and Prasad, 1989). As elaborated in Chapter 3, S3.3.3, the payment of claims would be almost automatic in guarantee schemes operating elsewhere. In Malaysia, the situation is very different even though the CGC purports to have set out its claims procedure with more clarity (Boocock and Mohd Shariff, 1996). The CGC has not provided an accurate breakdown of claims processed and paid since 1993. The researcher thus attempted to calculate the cost of NPGS defaults by using secondary data from CGC and BNM, and comments from the interviews with financial institutions.
The researcher first estimated claims processed over the period 1994-1998. A positive relationship was hypothesised (Chapter 4) between the amount of claims processed by CGC and the utilisation of the NPGS. The value of claims processed (Column 5) in relation to NPLs (Column 2) was generally higher over 1994-1998, although these figure are only my estimates – see column 6 of Table 7.11. Taking a one-year time lag, to allow expectations to take effect, the hypothesis states that utilisation will increase as the proportion of claims processed in relation to NPLs increases. However, when Column 6 is considered in relation to utilisation (Column 1) there is no clear-cut relationship. The hypothesis has not been substantiated, but I suspect my estimated figures are incorrect and other factors exerted more influence on utilisation.

Table 7.11: Claims Processed by CGC

<table>
<thead>
<tr>
<th>Utilisation (RMm)</th>
<th>Value (RMm)</th>
<th>Percent**</th>
<th>Number</th>
<th>Value (RMm)</th>
<th>Percent**</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Col 1)</td>
<td>(Col 2)</td>
<td>(Col 3)</td>
<td>(Col 4)</td>
<td>(Col 5)</td>
<td>(Col 6)</td>
</tr>
<tr>
<td>1986 124.3</td>
<td>201.2</td>
<td>26.8</td>
<td>210</td>
<td>1.99</td>
<td>0.99</td>
</tr>
<tr>
<td>1987 76.5</td>
<td>229.3</td>
<td>34.2</td>
<td>221</td>
<td>2.02</td>
<td>0.89</td>
</tr>
<tr>
<td>1988 50.5</td>
<td>239.5</td>
<td>40.7</td>
<td>228</td>
<td>2.74</td>
<td>1.14</td>
</tr>
<tr>
<td>1989 100.2</td>
<td>236.3</td>
<td>49.2</td>
<td>604</td>
<td>2.92</td>
<td>1.23</td>
</tr>
<tr>
<td>1990 313.3</td>
<td>223.2</td>
<td>38.9</td>
<td>909</td>
<td>9.10</td>
<td>4.08</td>
</tr>
<tr>
<td>1991 206.3</td>
<td>215.0</td>
<td>35.7</td>
<td>641</td>
<td>8.40</td>
<td>3.91</td>
</tr>
<tr>
<td>1992 174.7</td>
<td>209.0</td>
<td>36.0</td>
<td>301</td>
<td>3.90</td>
<td>1.87</td>
</tr>
<tr>
<td>1993 205.8</td>
<td>184.8</td>
<td>34.0</td>
<td>449</td>
<td>5.30</td>
<td>2.87</td>
</tr>
<tr>
<td>Total 1,251.6</td>
<td>N/A</td>
<td>N/A</td>
<td>3,563</td>
<td>36.37</td>
<td>N/A</td>
</tr>
<tr>
<td>1994 530.1</td>
<td>261.0</td>
<td>32.0</td>
<td>1,501</td>
<td>12.52</td>
<td>4.80</td>
</tr>
<tr>
<td>1995 1,758.7</td>
<td>416.8</td>
<td>25.0</td>
<td>1,605</td>
<td>16.40</td>
<td>3.93</td>
</tr>
<tr>
<td>1996 3,578.8</td>
<td>704.0</td>
<td>22.0</td>
<td>1,983</td>
<td>17.30</td>
<td>2.46</td>
</tr>
<tr>
<td>1997 3,847.4</td>
<td>844.8</td>
<td>20.0</td>
<td>314</td>
<td>29.10</td>
<td>3.44</td>
</tr>
<tr>
<td>1998 515.9</td>
<td>622.5</td>
<td>17.2</td>
<td>232</td>
<td>27.0</td>
<td>4.34</td>
</tr>
<tr>
<td>Total 10,230.9</td>
<td>N/A</td>
<td>N/A</td>
<td>5,635</td>
<td>102.32</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Notes:
* Banks' estimate of potential bad debts
** Non Performing Loans as a percentage of outstanding CGC loans
Source: Kanbur et al., 1995 and CGC Annual Reports

213
Second, a positive relationship was hypothesised between the proportion of claims paid by CGC and the utilisation of the NPGS. My contention is that FIs would seek to increase NPGS loans if claims were processed promptly and payments made automatically. Table 7.12 again reveals underlying improvements compared to the period 1986-1993. A higher proportion of claims processed was paid over the period 1994-1998 (RM33.01 million, 32.3 percent of RM102.32 million) compared to 1986-1993 (RM9.4 million, 25.8 percent of RM36.37 million). However, it was difficult to establish any relationship between claims paid in relation to claims processed (column 7) and utilisation of the NPGS, even if a one-year time lag was applied. Interviews with FIs in the case studies highlighted continuing problems with claims, especially for the debts of small borrowers. One FI commented that it always had to wait for the claims to be paid, and the claims money was then lodged in an escrow account for an inordinate period. Once again therefore, the hypothesis has not been substantiated.
Table 7.12: Claims Paid by CGC

<table>
<thead>
<tr>
<th>Year</th>
<th>Utilisation (RMm)</th>
<th>Value (RMm)</th>
<th>%**</th>
<th>Claims Processed</th>
<th>Claims Paid</th>
</tr>
</thead>
<tbody>
<tr>
<td>1986</td>
<td>124.3</td>
<td>201.2</td>
<td>26.8</td>
<td>210</td>
<td>1.99</td>
</tr>
<tr>
<td>1987</td>
<td>76.5</td>
<td>229.3</td>
<td>34.2</td>
<td>221</td>
<td>2.02</td>
</tr>
<tr>
<td>1988</td>
<td>50.5</td>
<td>239.5</td>
<td>40.7</td>
<td>228</td>
<td>2.74</td>
</tr>
<tr>
<td>1989</td>
<td>100.2</td>
<td>236.3</td>
<td>49.2</td>
<td>604</td>
<td>2.92</td>
</tr>
<tr>
<td>1990</td>
<td>313.3</td>
<td>223.2</td>
<td>38.9</td>
<td>909</td>
<td>9.10</td>
</tr>
<tr>
<td>1991</td>
<td>206.3</td>
<td>215.0</td>
<td>35.7</td>
<td>641</td>
<td>8.40</td>
</tr>
<tr>
<td>1992</td>
<td>174.7</td>
<td>209.0</td>
<td>36.0</td>
<td>301</td>
<td>3.90</td>
</tr>
<tr>
<td>1993</td>
<td>205.8</td>
<td>184.8</td>
<td>34.0</td>
<td>449</td>
<td>5.30</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>N/A</strong></td>
<td><strong>N/A</strong></td>
<td><strong>3,563</strong></td>
<td><strong>36.37</strong></td>
</tr>
<tr>
<td>1994</td>
<td>530.1</td>
<td>261.0</td>
<td>32.0</td>
<td>1,501</td>
<td>12.52</td>
</tr>
<tr>
<td>1995</td>
<td>1,758.7</td>
<td>416.8</td>
<td>25.0</td>
<td>1,605</td>
<td>16.40</td>
</tr>
<tr>
<td>1996</td>
<td>3,578.8</td>
<td>704.0</td>
<td>22.0</td>
<td>1,983</td>
<td>17.30</td>
</tr>
<tr>
<td>1997</td>
<td>3,847.4</td>
<td>844.8</td>
<td>20.0</td>
<td>314</td>
<td>29.10</td>
</tr>
<tr>
<td>1998</td>
<td>515.9</td>
<td>622.5</td>
<td>17.2</td>
<td>232</td>
<td>27.00</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>N/A</strong></td>
<td><strong>N/A</strong></td>
<td><strong>5,635</strong></td>
<td><strong>102.32</strong></td>
</tr>
</tbody>
</table>

Notes:

* Banks' estimate of potential bad debts
** Non Performing Loans as a percentage of outstanding CGC loans

Source: Kanbur et al., 1995 and CGC Annual Reports

The net cost of the NPGS to the Treasury for 1997 can now be estimated. The surplus for 1997 amounted to RM84.2 million. Claims paid amounted to RM7.63 million, leaving unpaid over RM21 million of claims processed. It is no wonder that representatives from FIs still feel frustrated about the non-payment of claims for bad debts.

On the subject of bad debts, the level of NPLs could be influenced by the quotas imposed by BNM on FIs in respect of NPGS loans. Problems experienced in claiming under the guarantee have been a major factor in the financial institutions' reluctance to utilise the CGC; many financial institutions prefer to pay the penalty rather than adhere to the guidelines. As mentioned in Chapter 3, S.3.3.4, these quotas might cause banks to approve guaranteed loans for high-risk borrowers simply to meet the quota (ADB, 1990; Levitsky, 1997). Meyer and Nagarajan (1996) stress that “suspicions about the credibility of government sponsored guarantee schemes are reported to have contributed to institutions choosing not to participate.”
In Chapter 4, S.4.3.2, a positive relationship was hypothesised between the guidelines imposed by BNM and the utilisation of the NPGS. The hypothesis was tested using secondary information provided by BNM and interviews with key informants from the financial institutions. These targets are frequently not met, despite the imposition of financial penalties for non-compliance. Table 7.13 shows that the overall target for March 1998 for NPGS loans was satisfied, but a number of FIs still failed to comply with their individual quotas.

Table 7.13: Lending Guideline for NPGS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>NPGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total guarantee cover (RM million)</td>
<td>1,000.0</td>
<td>2,341.1</td>
</tr>
<tr>
<td>Commercial banks</td>
<td>240.0</td>
<td>1,216.1</td>
</tr>
<tr>
<td>Finance companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-compliance (no. of institutions)</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>-commercial banks</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Finance companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NPGS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(for Bumiputera community)</td>
<td>Total guarantee cover (RM million)</td>
<td>500.0</td>
</tr>
<tr>
<td></td>
<td>Commercial banks</td>
<td>120.0</td>
</tr>
<tr>
<td></td>
<td>Finance companies</td>
<td>8</td>
</tr>
<tr>
<td>Non-compliance (no. of institutions)</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>Commercial banks</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Finance companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Source: BNM annual report 1997</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Nine commercial banks and eight finance companies were fined for failing to achieve the quota set by BNM. Likewise, the overall quota for Bumiputera firms was achieved, but 16 commercial banks and eight finance companies were penalised.

Nine of the fifteen (60 percent) financial institutions lending to case study firms claimed to have achieved the BNM quotas specified by their Head Offices. The remainder were uncertain whether their quotas had been reached (Table 7.14).
Four of the nine institutions that had achieved their quotas thought they had exceeded their requirements by far. Financial institution J (hereafter referred to as FI J) claimed that CGC had asked it to stop sanctioning NPGS loans after reaching its quota, because of the high level of NPLs. This outcome lends support to Meyer and Nagarajan (1996) who suggested that quotas and associated incentives or penalties might lead FIs to make loans they were convinced would be unprofitable. FIs might expect losses but, in the face of penalties for non-compliance, feel they might as well exhaust their quotas. In certain circumstances, FI officials are not being penalised (in terms of their promotion prospects) if borrowers fail, because NPGS loans are granted to Government-favoured customers, especially the Bumiputera business community. This situation is especially prominent in Government-owned banks, institutions which follow Government lending guidelines more slavishly than private sector financial institutions.

Given that banks in Malaysia react to the imposition of quotas in very different ways, it was not possible to establish a relationship between utilisation and the existence of BNM guidelines. The quotas were frequently subject to change at short notice, and the researcher found great difficulty in identifying which quota was in operation during any specific time period. Even though the quotas do seem to exert an influence, it was therefore not possible to ‘prove’ or ‘disprove’ the hypothesis.

### Table 7.14: BNM Quota for Case Study Firms

<table>
<thead>
<tr>
<th>BNM Quota</th>
<th>Frequency</th>
<th>Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieved quota</td>
<td>9</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Uncertain</td>
<td>6</td>
<td>40</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

7.5 INTERVIEWS WITH KEY INFORMANTS

#### 7.5.1 Interview with Chief Executive Officer (CEO) of CGC

The researcher was privileged to interview some key players in the industry notably the Chief Executive Officer (CEO) of the Credit Guarantee Corporation. A number of
critical issues were discussed, especially the objectives of the CGC, the monitoring of non-performing loans (NPLs) and recovery of claims paid, and the targeting of loans to priority sectors. The interview was carried out in March 1998, during the period where CGC was experiencing low utilisation of its loans owing to the prevailing economic recession. The CEO confirmed that the main objective of the CGC is to provide ready access to credit at a reasonable cost. The issue of non-performing loans (NPLs) was very sensitive at the time of the interview, because the level of NPLs across the financial sector was alarming. According to the CEO, the NPLs for CGC loans were reasonable (17 percent), compared to the industry average of 20-24 percent. When prompted further on this issue, he was adamant that the NPLs had to be viewed in the context of the principal objective of CGC.

In looking at the overall effectiveness of the NPGS, he felt that the net benefits outweighed the costs, and that the benefits could not be measured solely in quantitative terms. The researcher tried to extract quantitative figures on the costs and benefits of the NPGS, but unfortunately the CEO was very hesitant. The high NPLs faced by the banking industry and the economic recession at the time prevented him from divulging this information. However, he stressed the benefit of the NPGS to the wider economy and the limitations of using cost-benefit analysis to evaluate the Scheme:

For example, since we (CGC) operate under the Ministry of Entrepreneurial Development, jobs cannot simply be translated into dollars and cents. You cannot just look at NPLs. What about developmental costs? And you cannot compare NPLs against the benefit that these people are getting. The impact of CGC support is felt by the recipients and people around them in a chain reaction. An OM gets new business, and he can give other people business, so there is a kind of chain reaction. Cost-benefit analysis is impossible to do, unless you limit your scope to dollars and cents; how much you pay out and how much income you get from the Government. But that's not right. You just said that I pay out less than I get and, therefore, I earned something. If I pay out more than I collect, I'm running at a loss. That's simplifying too much.

The CGC is funded by compulsory endowments from BNM and the FIs rather than annual budget appropriations from the Government. Meyer and Nagarajan (1996) suggested that:

The method used to fund guarantee programmes influences the difficulty with which they can be evaluated. Programmes financed out of annual budget appropriations offer one advantage with respect to public policy. The annual costs of these programmes are more transparent than in programmes funded out of endowments so...
the benefits can be more easily debated relative to the costs. Most accounting systems for endowed guarantee funds assume the funds have a zero opportunity cost. As long as the fund survives without further capitalisation, this implicit subsidy is disguised and may never be evaluated relative to the benefits obtained from guarantees or relative to other means for assisting the target sector.

The issue of high NPLs and their impact on CGC’s ability to run a guarantee scheme was discussed. The researcher cited certain countries like Japan which have guarantee schemes that experience higher NPLs but are still sustainable. To this question, the CEO stated that CGC operates in a different climate from that prevailing in Japan. The CGC needs to manage its Schemes prudently and profitably, because it operates without an annual grant from the Government. The CGC depends on funds from its shareholders:

Here our (CGC) support from the Government has always being detached, not a direct support. We never get annual grants. Whatever we get, we get from our shareholders; whatever we get, we get in the form of loans which we have to pay back and we’re running a company like any other company registered under the Registrar... We’re not in that sense a cost centre. We have to run a profitable concern to survive. So is different when you said about the Japanese Scheme. Of course, the Japanese are not worried because their Government backs them all the time. In Malaysia is different. The Government may decide to close down CGC. So, we have to take caution of the fact that we don’t have that kind of guarantee from the Government... So, that has always been our primary concern. How far we can go, how far we can push, is very much dependent on whether we will break even or not.... To the question of whether we have the capacity to increase our guarantees that is entirely dependent on ourselves. There is no guarantee that the Government will support or will bail us out, in case something happened. There is no, maybe, there is implied support from the Government, but there has never being something that is clear.

The cautious approach taken by CGC’s management towards the utilisation of the NPGS therefore stems from its reluctance to face the prospect of making losses. The threat of higher NPLs is a deterrent even though CGC has a secure source of endowed funds in the form of interest income on soft loans. Furthermore, as mentioned in Section 7.4, FIs have to wait an inordinate time for the claims to be paid, and many claims are rejected. Several FIs prefer to pay the penalty rather than abide by the guidelines set by BNM.

My discussion with the CEO also touched on the allocation of loans to priority sectors, monitoring of NPLs, recovery of claims paid, and the management of the CGC’s client base, as well as new activities such as advisory services for selected companies.
The CEO explained the rationale behind recent changes in the implementation of the NPGS, especially the allocation of loans to priority sectors. Given its limited capital, CGC’s main concern is to reach as many borrowers as possible. Over the years, the guarantees have increased at a faster pace than CGC’s reserves. However, the majority of CGC loans were still above RM500,000 and its guarantees did not reach many smaller borrowers. CGC has recently focused on smaller loans (below RM250,000), giving them priority in terms of higher guarantee cover and lower guarantee fees. The aim is to encourage banks to lend more to SMEs (rather than micro or large enterprises) and to reach as many potential borrowers as possible. For loans above RM250,000, CGC believes that bigger borrowers can afford to pay higher guarantee fees and, of course, they also have access to other forms of credit.

With regard to the monitoring of NPLs, the CEO stated that the value of guaranteed loans has recently grown by more than 100 percent each year. For example, in 1994 CGC managed loans valued at RM600 million; by 1997, the value of guaranteed loans had increased to around RM3.9 billion. CGC is increasingly concerned with the management of its portfolio and the monitoring of loans is critical:

If you don’t manage your base well, a lot of loans are not going to be repaid, people (borrowers) are to going to ignore the terms of the guarantee and they may default on the loans. There’s no point in bringing new loans when the existing ones are rotting away.

CGC is seeking to take action before loans become bad, and it has improved its Management Information System (MIS). This is electronically linked to the financial institutions, involving a shared data base and the electronic submission of information between CGC and the financial institutions.

The CEO also discussed other activities such as consultation and advisory services and cross selling of products, covered in more detail in Section 7.5.2.

As discussed in Chapter 1 and Chapter 3, S3.3, there must be sufficient liquidity in the banking system for guarantee schemes to function effectively. The Malaysian banking system was adversely affected in the wake of speculative attacks on the currencies of a number of East Asian countries. Banking institutions became preoccupied with managing their bad debts and curtailed their lending sharply. The CGC focused its
guarantee support away from certain sectors or industries which the Government categorised as low priority, for example, property development, car dealing or retail outlets. In contrast, a number of productive industries have been given high priority, such as manufacturing, and export-oriented or import-substitution firms.

In summary, the interview with the CEO highlights certain areas that are crucial for CGC to function effectively. The NPLs for CGC loans according to the CEO are reasonable, compared to the industry average of 20-24 percent. However, the researcher was unable to determine the exact value of NPLs because of the reluctance of the CEO to divulge this information. The CEO stated that smaller loans (below RM250,000) would be a priority in future. However, the case studies indicate that borrowers having larger loans have a greater impact in terms of finance and economic additionality. Furthermore, growth-oriented companies might have difficulty in getting loans since the average value of loans taken by limited companies was RM387,000. The CEO is adamant that CGC has to reduce loans to sectors that are categorised as unproductive. The monitoring of NPLs is to be improved by the sharing of data between CGC and the financial institutions.

7.5.2 Interviews with Financial Institutions

The interviews with the OMs and their FIs also gathered information on issues pertinent to the activities of the CGC, notably the marketing activity conducted by CGC and the loan approval process.

Marketing the Guarantee Service to SMEs

According to Graham Bannock and Partners (1997), the importance of marketing guarantee schemes is often underestimated. Bank Negara (1995) and Boocock and Mohd Shariff (1996) highlighted the poor awareness and take up of CGC-backed facilities. Interviews with OMs in the case studies, and also the questionnaire responses confirmed these problems. Figure 7.5 shows that the majority (73.4 percent) of the OMs in the case studies learned of the NPGS from their financial institutions and the remainder became aware of the Scheme through friends and/or the press, or from personal enquiries to the CGC.
Some of the OMs recommended that CGC should be more aggressive in promoting its Schemes by advertising through the media, newspapers or other government agencies. They felt that the target audience could be new or start-up companies. Brochures and information on the various CGC-backed facilities should be distributed widely. In Thailand, for example, the Small Industry Credit Guarantee Corporation (SICGC) was criticised for funding firms around Bangkok and it responded with a direct mail campaign to 7,000 manufacturing businesses in three areas away from the capital (Graham Bannock and Partners, 1997).

Since 1998, CGC has provided information sessions and exhibitions to create awareness of its Schemes. Although a total of 36 sessions were held over the country, attracting 7,160 participants, the impact of these sessions appears to have been limited.

The support of financial institutions for CGC is welcome provided that key users are able to represent their interests effectively (Graham Bannock and Partners, 1997). If the FIs are simply coerced into investing in the guarantee company, without seeing a commercial benefit from participation, problems will surely ensue. Representatives of
the financial institutions rarely considered the relationship with CGC to be an integral part of their strategy to help SMEs. However, financial institutions with specialised units to cater for the SME sector were prepared to formulate a coherent strategy involving the use of CGC guarantees.

Another important area to raise the profile of CGC is the provision of training and consultancy services for SMEs. The majority of the firms interviewed in the case studies commented that such support from CGC was non-existent. One OM facing bankruptcy stated that:

CGC and the FI should monitor the clients closely to provide guidelines and ensure sound management. My company is now in trouble due to mismanagement by the full time directors. Could have been avoided if there was closer monitoring.

The CGC aims to provide support services, but this ambition has not yet been realised. Experience has shown that "providing developmental services such as business counselling, extension services, technical assistance and business information puts the guarantor into a relationship with the borrower" (Allahar and Brown, 1995). This is supported by Abdul Hamid and Abdul Rashid (1996) who argued that support services (such as consultancy) were very important to SMEs. The availability of such services could help to reduce defaults which stem from poor management.

**Approving Applications**

A number of adverse comments were made by borrowers and FIs regarding the processing of loan applications. The borrowers complained that it took three to four months for the applications to be approved. FIs confirmed that: applications took about one to two months to approve, and 6 months exceptionally; the procedures given by CGC were very restrictive; some NPGS loans approved by FIs were rejected by CGC without any reason (this happened over the recessionary period of 1997-1998); and, finally CGC charged SMEs before the guarantee was provided to the bank, a procedure which is obviously to the disadvantage of borrowers. The borrowers also complained that some of the FIs were reluctant to provide the NPGS-backed facilities without collateral/security. For example, one borrower stated:
No loan is given without collateral. Bank do not give the loans as intended by CGC.

Another borrower was dissatisfied that his bank requested a fixed deposit of RM80,000 against an NPGS loan of RM100,000 and questioned the point of having a guarantee in such situations.

7.6 SUMMARY

This chapter has summarised the fifteen case studies, developed more fully in Appendix 7.1. The interviews with the borrowers and their financial institutions provided valuable qualitative data on finance and economic additionality, and the net cost of the NPGS to the Treasury.

The case studies demonstrate that NPGS has achieved finance additionality of 37 percent of the total funds made available to borrowers. This is less impressive than 63 percent achieved in an earlier study carried out by Boocock and Mohd Shariff (1996). However, the 1996 study did not take into account finance from non-bank institutions. The low level of finance additionality in the present study stems from the ability of firms to obtain finance from other sources, and the presence of insufficient security, as banks switched to the NPGS to bolster a weak collateral position. However, the 37 percent finance additionality achieved in the case studies is comparable to other guarantee schemes that are properly designed and implemented elsewhere. The level of finance additionality could be increased if larger loans were given to growth companies and limited companies in the manufacturing sector.

Turning to economic additionality, the case studies suggest that NPGS loans enable borrowers to increase employment, profits or turnover. There were 395 employees in the case study firms, of which 154 were considered to be additional jobs resulting from the existence of the NPGS. This represented 63.9 percent of the employment additionality across the sample firms in the one year period. Those firms with partial finance additionality accounted for the largest number of additional jobs. The questionnaire respondents also claimed an improvement in employment before and after the NPGS was provided. A total of 1,413 employees before receipt of the NPGS...
increased to 2,073 employees over the following year, an addition of 660 (46.7 percent). The researcher found that survey firms with partial additionality accounted for 72.8 percent of additional jobs, while 100 percent finance additionality and zero additionality firms accounted for 48.0 percent and 30.4 percent respectively.

Using data from case study firms only, five firms increased their turnover by 6 to 10 percent, while six firms increased their turnover by more than 20 percent per annum. The NPGS appears to have had a significant impact on the progress of these firms and benefited the wider economy by generating exports. In terms of net-profit margin, only two firms increased their net profit margin by more than 20 percent. One firm, Firm F, performed remarkably well and is a 'model' of how NPGS funding can assist high technology firms. In relation to growth, some of the NPGS-backed firms showed a very positive attitude towards growth. Economic additionality was found to be low where general business firms, especially retailers were involved. Manufacturing firms generally have a greater economic impact and create more jobs.

The net cost of the NPGS was difficult to determine with any degree of precision because it is almost impossible to ascertain the default rate of NPGS-backed firms. The CGC's operating revenue, comprising guarantee fees, interest income and security realisations, minus operating expenses, left a surplus for 1997 amounting to RM84.2 million. Thus CGC, in theory, should have been able to settle any reasonable claims for payment from the financial institutions. However, the level of claims paid remains a problem, especially where small sums are involved. The financial institutions insist that claims paid were still lagging behind. A mere 32 percent of bad debt claims processed over the period 1994-1998 were settled. Some FIs still face penalties for non-compliance with the BNM directives.

Finally, the interviews with key informants also provided information on other operational issues. The cautious approach undertaken by CGC's management will not help the utilisation of the NPGS loans. CGC is reluctant to incur losses, even though it has a secure source of endowed funds in the form of interest income on soft loans, and refuses to pay claims on time. The CGC's focus is on areas identified by the Government, whereas private limited companies involved in manufacturing should be encouraged.
Marketing the guarantee service to SMEs is important. Interviews with OMs in the case studies and the questionnaire responses highlighted the poor awareness and take-up of CGC-backed facilities. Some OMs felt that CGC should be more aggressive in promoting its Schemes. The target audience could be new or start-up companies. The CGC has not yet provided training, advisory and consultancy services to SMEs even though it has expressed its intention to do so. The processing of loans was also criticised. The borrowers complained that it took three to four months for applications to be approved. The FIs confirmed these allegations by stating that it typically took 1 to 2 months to approve the NPGS loans. Some NPGS applications were rejected by CGC without any valid reason (this happened over the recessionary period of 1997-1998).
CHAPTER 8

CONCLUSIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

My thesis can be divided into three broad themes.

First, it is generally acknowledged that SMEs can play a crucial role in economic development, for example, by increasing employment and national income, offering flexibility and innovation, and supporting larger enterprises. However, these benefits will not accrue if SMEs are disadvantaged by inequalities in the financial markets. SMEs face difficulties in obtaining appropriate financial packages in the start-up, growth and development phases. Such difficulties stem from a number of interlinked factors, including the higher risk of SMEs failure, information asymmetries between SMEs and lenders, and the costly administration of SME loans. For a rapidly developing country like Malaysia, with an overriding ambition to be a fully-industrialised nation by 2020, it is vital that the SME sector is given every opportunity to prosper. This study examines a key initiative by the Malaysian Government to assist the SME sector.

Second, lenders seek security to overcome the problems associated with financing SMEs, and collateral is often in short supply. Government-backed loan schemes have therefore been established to protect lenders against 100 percent losses when SMEs default on loans. Although guarantee schemes operate in many countries, there are a variety of models under which such schemes can operate and a number of parameters that can be applied to any particular loan scheme. This study describes the operation of the principal loan scheme (the NPGS) administered by the Credit Guarantee Corporation in Malaysia, and compares its activities to guarantee schemes offered elsewhere. The researcher was able to assess whether the approach adopted by the CGC is suitable for the country, and its SMEs and financial institutions.
Conclusions & Recommendations

Third, and most important, this study evaluates the extent to which the NPGS is successful. This evaluation has two dimensions. My research explores whether the NPGS is appropriate to the financing needs of Malaysian SMEs, by examining the factors that influence the utilisation of the Scheme. Utilisation depends upon demand and supply factors, as well as the characteristics of firms and OMs. A high degree of utilisation, however, does not automatically result in an effective guarantee scheme. Effectiveness is measured in terms of finance and economic additionality, as well as the net cost to the Malaysian Treasury. The two dimensions of utilisation and effectiveness are not independent. A balance has to be struck, for example, between increasing finance additionality and accepting higher levels of default. The researcher gathered sufficient data to make judgements on how to improve the utilisation and effectiveness of the NPGS.

In evaluating the extent to which the NPGS is appropriate to the financing needs of Malaysian SMEs, the study started by identifying the variables or factors that determine its utilisation and effectiveness. These factors were drawn from a survey of the literature (Chapters 2 & 3). A theoretical framework was developed to explain utilisation, the relationships between factors were established and the research hypotheses were generated (Chapter 4). Second order objectives were concerned with judging effectiveness. The effectiveness of the NPGS depends on a number of interdependent elements, namely finance and economic additionality, and the net cost of the Scheme (Chapter 4).

The researcher used a research methodology that combined a questionnaire survey, in-depth interviews to build case studies, and interviews with key informants (Chapter 5). The questionnaire responses provide quantitative data on the demand and supply factors, and the characteristics of firms and OMs. The data were analysed using bivariate analysis (Chapter 6). The case studies yielded invaluable information on finance and economic additionality and, together with secondary data, gave insight into the net cost of the NPGS. Interviews with key informants helped to understand the rationale behind, for
example, targeting loans to priority sectors and gave the researcher an opportunity to explore ways in which the effectiveness of the NPGS could be enhanced (Chapter 7).

The present chapter summarises the main findings of the study, and makes recommendations on how the NPGS and the operations of the CGC might be improved.

8.2 CONCLUSIONS AND RECOMMENDATIONS

The findings of this study have to be interpreted in the light of the potential limitations set out in Chapter 1, S1.5. Sectoral, regional, response-rate and economic bias might influence the findings. These factors are considered in turn.

Over one-half (60.9 percent) of the sample firms came from the non-manufacturing sector, mainly firms engaged in general business. However, a sample drawn randomly from the underlying population of CGC borrowers would have favoured the general business sector even more strongly. The activity of such firms tends to displace other local firms and economic additionality is typically low. To focus on an issue of critical importance to the researcher, the number of manufacturing companies in the sample was increased, to prevent sectoral bias.

Regional bias could have been present if the characteristics of firms and OMs differ between regions. However, evidence from previous studies has refuted the importance of regional and locational factors in studies of SMEs. Furthermore, my focus on certain States in Malaysia, as opposed to a genuine national sample, was justified on the basis of convenience (proximity to the researcher), and time and cost constraints.

In terms of response-rate bias, the researcher encountered difficulties in obtaining data from certain sectors of the community within a multi-racial and multi-lingual society. It was difficult to get full co-operation from questionnaire respondents and the interviewees...
for the case studies, particularly on sensitive questions concerning how the business is funded. However, steps were taken to ensure that the responses were consistent and valid.

Lastly, economic bias was a source of some concern to the researcher, as the collection of data over the period March to May 1998 was a time when Malaysia was experiencing a deep economic recession. The perceptions of borrowers, lenders and policy makers towards the economy as a whole, and CGC in particular, would surely have been affected by the economic climate. This would have influenced their views on the utilisation and effectiveness of NPGS loans. To minimise these biases, the researcher asked the respondents to focus on the position before the onset of the recession.

Having established that the data were robust, and that sources of bias were minimised, the findings are summarised below.

A number of independent variables had a significant relationship on the utilisation of the NPGS - the amount of security or collateral, limited company status, manufacturing sector, size of firm, use of external advisers for fund raising, and the existence of a written business plan. However, all the hypotheses relating to the characteristics of the OM were rejected. This anomaly is explored below. The case studies demonstrate that NPGS has achieved finance additionality (albeit modest) and some degree of economic additionality. It proved very difficult to calculate the net cost of the NPGS to the Treasury, because detailed information on NPLs and claims paid was not made available.

These conclusions are now explored in more detail.

8.2.1 The Utilisation of the NPGS

The utilisation of the NPGS depends on demand and supply factors, as well as the characteristics of firms and OMs. The questionnaire survey was the main testing ground for hypotheses on utilisation, although some supply-side factors were considered in the
Conclusions & Recommendations

Interviews with borrowers, financial institutions and key informants. The major findings on utilisation are summarised in Table 8.1.

Table 8.1: Summary of Empirical Results: Utilisation of the NPGS (Test of Hypotheses)

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand Factors</td>
<td></td>
</tr>
<tr>
<td>Cost of loan</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Amount of security or collateral</td>
<td>substantiated</td>
</tr>
<tr>
<td>Supply Factors</td>
<td></td>
</tr>
<tr>
<td>Bad debt claims processed</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Amount of claims paid</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Guidelines (quotas) imposed by BNM</td>
<td>not 'proved' or 'disproved'</td>
</tr>
<tr>
<td>Support from finance companies</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Characteristics of the Firm</td>
<td></td>
</tr>
<tr>
<td>Legal Structure of companies</td>
<td>substantiated</td>
</tr>
<tr>
<td>Business activity</td>
<td>substantiated</td>
</tr>
<tr>
<td>Size of firm</td>
<td>substantiated</td>
</tr>
<tr>
<td>Age of firm</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Use of external adviser for fund raising</td>
<td>substantiated</td>
</tr>
<tr>
<td>Existence of business plan</td>
<td>substantiated</td>
</tr>
<tr>
<td>Characteristics of OM</td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Ethnic group</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Age</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Formal technical training</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Formal entrepreneur/business management training</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Formal education</td>
<td>not substantiated</td>
</tr>
<tr>
<td>Business experience</td>
<td>not substantiated</td>
</tr>
</tbody>
</table>

Demand Factors

It was hypothesised that SMEs seeking access to external funding would be attracted to NPGS loans if the cost of borrowing was competitive with the rate of interest charged by financial institutions. The overall cost of NPGS borrowing is marginally below that charged by financial institutions for SME facilities. The questionnaire findings, however, suggested that there is no real relationship (either positive or negative) between cost and utilisation for the NPGS. The most probable explanation is that access to finance, rather than its cost, is the major problem for SMEs in Malaysia.
Conclusions & Recommendations

The questionnaire data support the hypothesis that the NPGS assists borrowers without sufficient collateral. This could imply that the NPGS is used as a top-up facility for those borrowers without security or with insufficient security to cover their expansion plans. However, the FIs tend to use personal security as evidence of commitment by the borrowers. The situation is also complicated by the existence of the BNM quotas, an issue which was frequently raised in discussions with representatives of FIs.

The hypothesis was substantiated, but the link between security and utilisation is, at least, open to interpretation. It is not clear whether the NPGS is aimed at firms with no security, firms with security which would probably have qualified for conventional bank finance, or preselected firms directed by FIs to the NPGS principally to fulfil the BNM quota. Likewise, the decision to use 'clean' or 'secured' NPGS loans seems extremely opaque, and the procedure for dividing any security proceeds is impossible to establish (even if claims processed are paid). The situation cries out for clarity, and some recommendations in this respect are put forward in the next section.

Supply Factors

The supply-side hypotheses were either rejected, or neither proved or disproved in the case of the quota system.

Claims processed fluctuated in relation to NPLs, and there was no obvious relationship between the proportion of claims processed and subsequent utilisation of the NPGS. The figures for NPLs are not released by CGC, hence my estimates are suspect. However, representatives from the FIs persistently claimed that the procedure for processing claims was vague and ambiguous in favour of the CGC. Likewise, interviews with FIs highlighted continuing problems with the payment of claims, especially for the debts of small borrowers. The payment of claims was definitely not automatic as compared to guarantee schemes operating elsewhere.
The FLs appear to have valid cause for complaint. The CGC had a surplus of over RM84 million in 1997, yet, of RM28 million claims processed, only RM8 million were paid. The whole situation regarding claims processed and paid needs to be far more transparent. It is surely no coincidence that a mildly critical academic study (Kanbur et al., 1995) on this issue was followed by the CGC’s failure to publish data on claims processed and paid from 1994 onwards.

The quotas imposed by BNM for NPGS loans are generally met, but a number of FLs still fail to comply with their individual quotas. Problems experienced in claiming under the guarantee have been a major factor in the financial institutions’ reluctance to utilise the CGC. Government-owned banks follow the official lending guidelines more slavishly. However, the quotas were frequently subject to change at short notice, and the researcher found great difficulty in identifying which quota was in operation during any specific time period. The problem with the quotas is that they influence so many factors indirectly, even though it was not possible to ‘prove’ or ‘disprove’ the hypothesis relating the quotas to utilisation. It would create a much healthier climate for all parties if the quota system were abolished – this point is developed in the next section.

The only supply factor tested in the questionnaire survey found no significant association between the availability of CGC support through finance companies and the utilisation of NPGS loans. The interest charged by finance companies was much higher than commercial banks. Furthermore, finance companies are oriented towards consumer lending, principally hire purchase, housing loans and other consumer loans. The recent introduction of NPGS loans by finance companies meant that many SMEs were not aware that CGC-backed facilities are available from this source.

**Characteristics of Firms**

The majority of the questionnaire respondents are private limited companies. The sample contrasts with the underlying population of NPGS users, where the majority of the borrowers are sole proprietorships. The data reveal a strong positive relationship between
the legal structure of companies and the utilisation of NPGS loans. Limited companies obtain larger NPGS loans because they give greater credibility to FIs, and they can offer more collateral than unincorporated firms. Limited companies operate in important sectors of the economy, and they tend to be growth companies which generate high levels of economic additionality. The questionnaire findings are therefore not unexpected, but it is questionable whether limited companies should utilise the same guarantee scheme as small traders or modest partnerships.

The majority of sample firms are from the non-manufacturing sector, involved in wholesale and retail trading, building and construction, etc. Respondents from the manufacturing sector cover a range of activities, including food and drink, tobacco, timber products and furniture. There is a moderate positive relationship between manufacturing firms and the utilisation of NPGS loans. Evidence from the case studies confirms that FIs generally prefer to lend on tangible, hard assets such as plant and equipment because of their desire to counteract the problems associated with asymmetric information. The question of security is again prominent in this context. The banks, in particular, use the NPGS to back firms with tangible assets whereas one could argue that, for example, service-sector firms involved in e-commerce are vital for the development of an economy nowadays.

The majority of questionnaire respondents are small-scale enterprises. It was no surprise that the results indicate that bigger firms command higher NPGS loans than smaller firms. Apart from the obvious fact that small companies generally seek smaller loans, small firms have difficulties in obtaining external finance because of insufficient assets that can be used as collateral. However, the study found that NPGS-backed facilities did assist borrowers without sufficient collateral, and small firms form the largest group by number in the questionnaire sample and the underlying population of CGC borrowers.

By contrast, the questionnaire findings provide no real evidence of a positive relationship between the age of a firm and the utilisation of NPGS loans. A significant minority of the firms in the sample are young and small, but some of these firms command large loans.
Furthermore, some established firms would have been able to obtain conventional funding from FIs, thus they require less substantial NPGS-backed loans.

The study provides evidence of a strong positive relationship between the use of external advisers for fund raising and the utilisation of NPGS loans. The most prominent sources of financial advice are bankers and relatives/friends. Only one in five NPGS users did not use any source of financial advice. The results reveal that large loans are taken out by borrowers who use bankers and relatives/friends as the source of financial advice, rather than those depending on one source. These findings illustrate the importance of networking among SMEs, as OMs tend to rely upon longstanding relationships with banks and/or friends that they trust. The task for the CGC is to increase awareness of its services among the business community and, in particular, to convince bank officials that the NPGS is worthy of recommendation to their SME customers.

Over half of respondent firms have a written business plan. The results provide evidence of a moderate positive relationship between the existence of written business plans and the utilisation of NPGS loans. The business plan is principally used by the respondents as a tool for raising finance. Nearly two-thirds of the respondents who prepared business plans were Bumiputeras and the majority of them had undergone EMT programmes organised by Government agencies such as MEDEC, MARA and PUNB. The benefits of business planning for SMEs are sometimes overestimated. It is not automatic that firms with a business plan are successful! However, business plans frequently provide an important tool for resource allocation in firms with limited resources. It would probably be too restrictive to insist that NPGS loans are only granted to firms with a written business plan, but the practice should certainly be encouraged by CGC as part of a wider process of greater involvement in business support activities.
Characteristics of OMs

None of the hypotheses relating to the characteristics of OMs were able to explain the utilisation of the NPGS. My findings therefore do not support the established contentions in the literature.

The vast majority of OMs in Malaysia are male, yet there is no evidence of a positive relationship between male OMs and the utilisation of the NPGS. Despite the fact that SMEs owned by women may be less attractive to FIs because, for example, female entrepreneurs tend to be more heavily concentrated in service-sector businesses, there were no significant gender differences in the size of loans granted (RM513,000 and RM384,000 for males and females respectively). The explanation may lie in the sample data: female OMs may have been keen to participate in my survey to encourage other women to enter business. Alternatively, the findings may reflect the fact that the CGC is encouraging women, in line with a general Government policy to utilise the talents of women to a greater extent than hitherto.

The findings indicate no evidence of a real relationship between Bumiputera OMs and the utilisation of NPGS loans. Bumiputera OMs are favoured by the Government – many official schemes are aimed at correcting historical racial imbalances, and BNM quotas for CGC-linked loans discriminate in favour of Bumiputeras. However, Bumiputera OMs still tend to be concentrated in the food, furniture and handicraft industries. These industries face strong competition, with low profit margins and high mortality rates. Despite this focus of activity, my questionnaire findings demonstrate that Bumiputera OMs are able to obtain larger NPGS loans (RM600,000 on average for the sample) and the case studies confirm that many Bumiputera OMs are able to compete successfully on a national and global scale. However, without fuller information on NPLs, it is debatable whether the NPGS should be used as a policy instrument to engineer further changes in the business and social structure of Malaysia.
The study provides some evidence of a positive relationship between the age of OMs and the utilisation of NPGS loans. However, the evidence is not strong, and the hypothesis has not been substantiated. Once again, the questionnaire findings raise questions about the operation of the CGC. Middle-aged OMs (40-49 years) obtain NPGS loans of RM716,000 on average, whereas OMs aged 50 and above have NPGS loans averaging RM310,000. Even if a few larger loans distort the overall picture, the difference in loan size is striking. The explanation may lie in the security requirements – middle-aged OMs have enough collateral to enable banks to support NPGS applications – or it may be the case that middle-aged OMs have greater ambition for their companies and require larger loans to support their expansion plans.

One third of respondents had undergone some technical training. The findings, however, provide insufficient evidence of a positive relationship between the amount of technical training and the utilisation of the NPGS. On the same theme, the results provide evidence of a moderate positive relationship between the amount of EMT and the utilisation of NPGS loans. The majority of Bumiputera OMs have received some basic EMT from Government agencies, but EMT is not a prerequisite for the approval of NPGS loans. The need to obtain appropriate sources of finance should be an integral part of many forms of technical training or EMT, but the CGC would find it difficult to insist that training is undertaken before NPGS loans are approved. Once again, there is a need for CGC to become actively involved in raising awareness of its services, not only within the SME community, but also within those institutions offering business education and training.

My questionnaire data suggest a moderate positive relationship between the OMs' level of education and utilisation of NPGS loans. Education, both general and managerial, is regarded by lenders as important when evaluating companies. However, ANOVA analysis fails to find sufficient evidence of significant differences among groups with different levels of formal education (Table 6.44). The most probable explanation is that OMs acquire knowledge through their former jobs. However, university educated OMs did have the largest loans on average (RM624,000).
Finally, the results indicate a modest positive correlation between previous business experience and the utilisation of the NPGS. Borrowers having more experience tend to have larger NPGS loans, but the relationship is not linear. Some younger borrowers obtain large loans, while some older OMs have more resources to introduce into the business, hence they require smaller NPGS loans. These findings are encouraging. While there is a danger that young OMs will be too ambitious and try to expand too quickly, it is important to encourage entrepreneurial activity by younger members of society.

Although the statistical relationships are not strong enough to substantiate any of the hypotheses relating the characteristics of OMs to utilisation of the NPGS, the findings offer some encouragement to the CGC. For example, female OMs comprise only 9 respondents of 92 in the sample, yet they do not seem to be disadvantaged with respect to the size of NPGS loans. Likewise, younger entrepreneurs can gain access to NPGS-backed facilities despite their relative lack of business experience and/or collateral. Finally, Bumiputera OMs benefit from the BNM quota system and, despite the fact that Bumiputera OMs tend to be located in low technology sectors of the economy, many Bumiputera OMs have secured large NPGS loans and contribute significantly to the economy.

8.2.2 The Effectiveness of the NPGS

The effectiveness of the NPGS depends upon achieving a high level of finance additionality. My case studies demonstrate that NPGS has achieved finance additionality of 37 percent, compared to the questionnaires where the figure was 54 percent. This difference is to be expected as the finance additionality figure derived from the questionnaires does not take into account the views of the FIs. The FIs were able to confirm the borrowing capacity of the case study firms in an objective independent manner. My methodological approach, using ‘triangulation’, is labour-intensive but it offers the chance to assess the operation of the Scheme in a rigorous manner.
Conclusions & Recommendations

The lower finance additionality in the case studies stems from the ability of firms to obtain finance from internal sources, their present FIs, and other FIs (both public and private). The majority of Bumiputera firms had received financial assistance through Government agencies other than the CGC. (There was no evidence of SMEs using venture capital or equity financing; the heavy reliance on debt finance supports the existence of an 'equity gap' for SMEs in Malaysia.) Another reason for a reduced level of finance additionality was insufficient security, as banks switched to the NPGS to bolster a weak collateral position. All but one of my case study firms had to provide some sort of security/guarantee in order to obtain their NPGS loans.

On the positive note, the level of finance additionality in my case studies, according to Bannock and Partners (1997), is comparable to guarantee schemes elsewhere that are properly designed and implemented. Such schemes typically yield additionality of around 30-50 percent. However, Levitsky (1997) and Bannock and Partners (1997) stress that 'not less than 60 percent of loans should be additional - preferably nearer 80 or even 90 percent. If additionality is below these targets then appropriate action should be taken'. A number of suggestions to increase additionality are given in the next section.

Apart from the finance additionality associated with the initial financial package, the majority of my case study firms enjoy good banking relationships with their FIs through prompt payments of interest and capital and submission of regular business plans. The FIs were willing to provide additional non-NPGS finance after the NPGS-backed facilities were exhausted. My research confirms previous studies which argue that sustained banking relationships are important to reduce asymmetric information and are associated with the greater availability of capital, less frequent pledging of collateral, lower charges for credit lines and lower monitoring requirements.

Turning to economic additionality, my case studies provide evidence that NPGS loans tend to be used for working capital purposes. My results confirm that the provision of funds for working capital is probably less likely to lead sustainable rises in employment and output than capital expenditure (NERA, 1990). Limited companies engaged in
manufacturing used term loans for the purchase of plant and machinery, and this led to substantial rises in employment and turnover.

The case studies as a group employed 395 full-time workers, and 154 of those jobs resulted from the existence of the NPGS. This represented an increase of 63.9 percent in employment in the year after the NPGS drawdown. Those firms with partial finance additionality accounted for the largest number of additional jobs, because the vast majority of firms had to provide collateral. The NERA (1990) study found that firms having 100 percent finance additionality accounted for the largest number of additional jobs, but it was not possible to compare my research with that study.

The questionnaire respondents also claimed a remarkable improvement in total employment before and after the NPGS loans were provided. A total of 1,413 employees before receipt of the NPGS increased to 2,073 employees, an addition of 660 (46.7 percent). In the survey responses, firms with partial finance additionality accounted for the largest number of additional jobs and had the highest ratio of additional employment to total employment (referred to Table 7.9). These firms all had to offer some sort of security/guarantee to FIs. Furthermore, manufacturing firms are able to offer tangible assets such as plant and equipment which FIs prefer. The study also confirms that the manufacturing sector generates more employment opportunities.

In relation to turnover, almost half of the case study firms increased their turnover by more than 20 percent, although only two firms increased net profit margins by more than 20 percent. The study also produced evidence of innovation and 'dynamism' principally in the manufacturing sector and export-oriented companies. One firm (Firm F) manufactures high technology switch gears for the industrial sector and its performance should definitely encourage NPGS funding to high technology firms.

The net cost of the NPGS to the Treasury was difficult to determine, because the default rate of NPGS-backed firms is not a matter of public record. On the basis of my estimates for NPLs, claims processed and claims paid (Tables 7.1 and 7.2), and certainly on the
Conclusions & Recommendations

basis of discussions with representatives from FIs, the processing of claims is slow and many claims are rejected for reasons unknown to the FIs. It has to be repeated that the payment of claims in guarantee schemes elsewhere is almost automatic.

8.3 RECOMMENDATIONS

The researcher set out to establish the factors contributing to the utilisation of the NPGS and its effectiveness. The research programme has shed new light on certain aspects of the CGC's operations, and confirmed that other areas are difficult to comprehend. There are inherent contradictions in the way in which CGC supports SMEs, many stemming from the existence of quotas and collateral requirements.

On the basis of my research programme, I judge that the CGC could improve its services to SMEs by addressing the following interlinked issues:

i) **Eligibility Criteria**

In establishing priorities for its future activities, the CGC has to clarify its objectives. At present, it seems to adopt a piecemeal approach which leads to anomalies and contradictions. Established schemes such as the NPGS are changed and/or new schemes are introduced, without explanation or critical evaluation of past achievements or failures.

The first step is to tailor different schemes to meet the needs of different applicants – micro firms with no security, expansion minded firms which lack sufficient security to secure conventional bank loans, etc. Presently, the CGC offers two major schemes for SMEs – the NPGS and the Flexible Guarantee Scheme (FGS). Although these schemes claim to target a different client base, in practice they overlap considerably in the disbursement of funds.
Conclusions & Recommendations

The FGS could be used to support micro firms start-up companies with no security, or small manufacturing firms with no track record. This approach would leave the NPGS to support those companies which might offer the most benefit to the economy.

Finance Additionality

For finance additionality, Graham Bannock and Partners (1997) stress that: "not less than 60 percent of loans should be additional – preferably nearer 80 to 90 percent." Finance additionality could be increased from its present level (37 percent in the case studies and 54 percent in the questionnaires) in a number of ways.

For applicants without security, additionality should always be higher and frequently 100 percent. For applicants without security, the situation is more complicated. The approach adopted in the UK is to insist that any collateral is used to secured conventional bank loans. The excess borrowing requirement is effectively unsecured, apart from the government guarantee. This ensures that any LGS borrowing is genuinely ‘additional’. At present, FIs in Malaysia can use the NPGS to support additional borrowing (a ‘clean’ facility) or the NPGS can support all borrowing (with any security being shared between the FI and the CGC). This choice of ‘clean’ or ‘secured’ facility seems to lead to uncertainty and confusion.

To clarify the situation, I propose that the guarantee given under the NPGS should be restricted to genuine ‘additional’ finance (i.e., over and above the value of any security). This would mean that NPGS-backed borrowing would effectively be unsecured. A system of this type could only operate if:

a) the FIs only lend if the proposal would be worth backing if security was available
b) the risk of the loans would be increased hence FIs have to be assured that they received a satisfactory return on any borrowing and that all reasonable claims will be met.

c) the guaranteed portion of the loan is sufficient to ensure that the FIs do not take excessive risks and/or encourage moral hazard on the part of borrowers.

iii) Economic Additionality
The research programme for this thesis clearly demonstrated that firms in certain sectors of the economy generate higher levels of economic additionality. If economic additionality is to be a priority, as I believe it should be, target groups would be limited companies in the manufacturing sector, with export-orientation or import-substitution potential, or those engaged in the production of high-technology products. If the NPGS is to achieve a higher degree of economic impact, the CGC’s present portfolio of companies has to be radically altered (Boocock and Mohd Shariff, 1996). The exclusion of certain types of applicants (particularly retailers) would offer higher economic additionality, but a focus on high risk innovative companies would almost certainly result in increased bad debts. If the Government decides that, for example, high-tech companies are a priority for the CGC, then it has to be prepared to increase the resources available to CGC to meet potential claims.

iv) Monitoring of Additionality
The monitoring of finance additionality could be based on the methodology adopted for this thesis. Finance additionality should not be encouraged as an end in itself, but it has to be balanced against default rates. If lenders persistently choose to back high risk borrowers, evidenced by a high failure rate, the CGC could penalised those lenders by reducing the guarantee level or enforcing a much higher premium (to be met by the FI).
Likewise, economic additionality should be monitored in a far more systematic way than hitherto. The indicators used in my thesis could be applied to a selection of CGC borrowers on a regular basis; the indicators include increased employment, sales and profits, as well as indirect measures such as displacement and dynamism.

**Handling of Claims**

The conditions for triggering claims and repayment have to be set out clearly by the CGC. Some rejection of claims is a desirable discipline, where conditions are not fulfilled, and the lender does not take due care in screening, approving, supervising or collecting loans (Graham Bannock and Partners, 1997). However, there are genuine cases in my research that indicate claims have not been processed promptly and legitimate claims have been refused. Graham Bannock and Partners (1997) recommend that claims should be triggered when:

- Arrears and non-payments reach 90 days
- Default has been appropriately notified to the borrower
- The outstanding loan has been called in
- The loan has been written-off in the accounts of the lender
- Legal proceedings have been initiated to foreclose on any collateral and to recover the debt.

These seem to me to be reasonable conditions for the FIs to satisfy before the CGC pays a claim.

**Support Services for SMEs**

The CGC has operated at arm's length from both the banks and its ultimate SME clients. The NPGS is a classic example of the Individual Model of a credit-guarantee scheme, where the guarantor has no contact with the borrower. The CGC should introduce training, advisory and consulting services to help SMEs, and also to reduce the transaction costs of FIs. To date, the CGC has promised to introduce support services, but has not yet done so. The importance of training
Conclusions & Recommendations

and business planning was highlighted in the previous section. and the provision of support in these areas should help to reduce default rates stemming from poor management on the part of OMs. To provide effective support services, people with the right level of commercial and financial experience have to be attracted and offered appropriate rewards and career development opportunities within CGC.

The CGC already operates a Block Guarantee Scheme (BGS) within the NPGS for loans up to RM50,000. This facility might be expanded to loans up to RM100,000. Alternatively, the CGC’s support services could assist FIs to approve certain types of loan. For example, an independent assessment unit could be established to help in the appraisal of applications from the manufacturing and technology-related sectors. This unit could, for example, have the power to recommend loans for up to 10 years, to give innovative firms time to generate profits if the development stage of a product is protracted.

vii) Marketing the Guarantee Service to SMEs and Lenders

The marketing stance of the CGC should be pro-active, and it should have strong publicity links with lenders, SMEs and training providers. The CGC should be more aggressive in promoting its services by advertising through the media, as well as direct mail campaigns to its target groups. The features of the various schemes should also be regularly up-dated on the Internet. The establishment of branch offices by CGC should be adequately resourced with qualified staff, especially those with expertise in communications.

viii) Abolish the Quota System

The previous section suggested that the quota system has a pervasive influence on the operation of the NPGS. My research has shown that some FIs abuse the quotas by lending to pre-selected customers or by backing high-risk companies who see the funding as a grant rather than a loan to be repaid. Any quota is a
Conclusions & Recommendations

distortion of market forces and the quotas imposed by BNM have certainly not resulted in high levels of finance and economic additionality. My recommendation is that the quota system should be abolished. If the changes suggested above were introduced, then FIs and SMEs would be prepared to use the NPGS, confident in the knowledge that they receive a fair return for the risks incurred. The abolition of the quota system does not mean that the Malaysian Government should no longer assist SMEs. The SME sector needs official support, but assistance (financial or otherwise) can be targeted at particular groups of companies. The CGC has undoubtedly helped many SMEs and it can point to some notable successes, as the case studies demonstrate. However, my research suggests that it is very difficult to integrate an industrial (and social) policy with a guarantee scheme. The outcome is a relatively blunt instrument which tends to miss the target.

8.4 DIRECTIONS FOR FUTURE RESEARCH

There are opportunities for further work, building on the present research, especially in the evaluation of the guarantee schemes.

The inconclusive results associated with the supply factors and OM characteristics should not be viewed as constituting a total rejection of such variables in explaining utilisation. The present research could serve as a point of departure for a more in-depth study encompassing a larger sample of SMEs, and an attempt to profile defaulting companies. Such a profile would demonstrate to financial institutions where problems of NPLs have arisen in the past.

My evaluation of the net cost of the NPGS to the Treasury is very much at an exploratory stage. The relationship between the capital base of the CGC and its ability to generate loans and (more importantly) to pay legitimate claims arising from non-performing loans
Conclusions & Recommendations

is a key area where information is denied to researchers. I would hope that the CGC will adopt a more open and transparent approach to its activities in future.

This research has focused on the interest-based NPGS. There is now an interest-free NPGS that runs in parallel with the conventional NPGS. It would be interesting to explore the utilisation and effectiveness of the new Scheme. A comparative study of the Islamic and conventional NPGS could add significantly to the body of knowledge and provide important information for policy makers in Malaysia.
References


References


References


Business Times (5 November 1996), Enterprise 50, A Fortune 500 Style Ranking - Role Model for Listed Firms, Business Times.


References


255
References


Credit Guarantee Corporation (1990-1998), Annual Reports, CGC, Kuala Lumpur.


Hatekayama, M. (1997), Asia Guarantee Systems for SMEs. in Listeri, J. And Levitsky, J (Eds.).


261
References


Keasy, Kevin and McGuinness, Paul (1990), Small New Firms and the Return to Alternative Sources of Finance, Small Business Economics. 2, pp.213-222.
References


Lynn, M. (1992), Stock Exchange Slams the Door on Small Firms. The Sunday Times, 6 December, pp.3-10.


Malaysia (1991b), *RRJP2 dan RM6 (The Second Outline Perspective Plan and The Sixth Malaysia Plan)*, Economic Planning Unit, Prime Minister's Department, Kuala Lumpur.


References


267


References


Rhyne, E.H. (1988), *Small businesses and SBA loan guarantees subsidizing the weak or bridging a credit gap?*, Quorum Books, New York.
References


References


References


The Star (26 April 1999), It's all System go to Mesdaq Debut, The Star.

The Sunday Times (17 December 1995), Oldies are the Goldies for Going it Alone, The Sunday Times, p.27.
References

The Times (21 October 1994), Small firms lack skills. *The Times*, p.31.


References


 References


References


APPENDIX 2

FUNDING SCHEMES UNDER BNM (THE CENTRAL BANK) AND OTHER GOVERNMENT AGENCIES
Funding Schemes Administered by BNM

BNM has established a number of financing schemes for SMEs, offering medium and long-term funds at concessionary rates. The Government has also made available new funds, at a reasonable cost, to rehabilitate ailing business enterprises and promote investments in the priority sectors (BNM, 1993, 1994, 1995, and 1998).

These measures, together with Schemes operated by the CGC, were designed to ensure greater access for viable SMEs lacking collateral, especially those eligible for loans under the Fund for Small and Medium Industries (FSMI), Rehabilitation Fund for Small and Medium Industries (RFSMI), New Entrepreneurs Fund (NEF) and Fund for Food (3F). In March 1999, the CGC introduced the Flexi Guarantee Scheme (FGS) to enable wider participation of the four Schemes through appointed banks and financial institutions. The FGS is discussed in more detail in Chapter 3, S.3.5.2.

Besides the four Schemes mentioned above, other initiative offered by BNM through banks or financial institutions are shown in Table A2.1 below. The degree of utilisation of these Schemes has improved over the years.
## Table A2.1: Funding Schemes Administered by BNM: Fund Utilisation

<table>
<thead>
<tr>
<th>Type of Fund</th>
<th>Date Established</th>
<th>Fund Allocation (RM m)</th>
<th>Total as end 1997</th>
<th>Total as end 1998</th>
<th>Annual Change</th>
<th>Outstanding as at end 1998</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Amt RM m</td>
<td>Approvals</td>
<td>No.</td>
<td>Amt RM m</td>
<td>Approvals</td>
</tr>
<tr>
<td>Enterprise Rehabilitation Fund</td>
<td>06-02-88</td>
<td>800</td>
<td>745</td>
<td>841</td>
<td>761</td>
<td>850</td>
</tr>
<tr>
<td>New Entrepreneurs Fund</td>
<td>12-12-89</td>
<td>1.250&lt;sup&gt;1&lt;/sup&gt;</td>
<td>2,069</td>
<td>973</td>
<td>2,186</td>
<td>1,064</td>
</tr>
<tr>
<td>Special Fund for Tourism</td>
<td>10-03-90</td>
<td>200</td>
<td>212</td>
<td>241</td>
<td>211</td>
<td>239</td>
</tr>
<tr>
<td>Ship Financing Facility</td>
<td>30-10-92</td>
<td>600</td>
<td>32</td>
<td>547</td>
<td>32</td>
<td>547</td>
</tr>
<tr>
<td>Fund for Food (3F)</td>
<td>04-01-93</td>
<td>1,000&lt;sup&gt;2&lt;/sup&gt;</td>
<td>1,025</td>
<td>302</td>
<td>1,689</td>
<td>493</td>
</tr>
<tr>
<td>Bumiputera Industrial Fund</td>
<td>04-01-93</td>
<td>100</td>
<td>45</td>
<td>58</td>
<td>101</td>
<td>99</td>
</tr>
<tr>
<td>Fund to Accelerate the Construction of Low-Cost Houses</td>
<td>29-10-93</td>
<td>500</td>
<td>58</td>
<td>379</td>
<td>58</td>
<td>379</td>
</tr>
<tr>
<td>Abandoned Housing Projects Fund</td>
<td>10-08-94</td>
<td>600</td>
<td>74</td>
<td>331</td>
<td>74</td>
<td>331</td>
</tr>
<tr>
<td>Fund for Small and Medium Industries</td>
<td>02-01-98</td>
<td>1,500</td>
<td>0</td>
<td>0</td>
<td>873</td>
<td>882</td>
</tr>
<tr>
<td>Rehabilitation Fund For Small and Medium Industries</td>
<td>23-11-98</td>
<td>500&lt;sup&gt;4&lt;/sup&gt;</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

<sup>1</sup> Initial allocation was RM750 million. Additional allocation of RM500 million was approved by the Minister of Finance in 1998.

<sup>2</sup> Initial allocation was RM300 million. The Minister of Finance announced an additional allocation of RM300 million in 1994, RM400 million in 1997.

<sup>3</sup> Approval withdrawn by bank/applicant.

<sup>4</sup> Allocation reduced from RM750 million to RM500 million as 4 August 1999.

Source: BNM, Annual Report 1998

The Enterprise Rehabilitation Fund (ERF) was set up in 1988 with an allocation of RM500 million, to assist Bumiputera Entrepreneurs affected by the recession in 1985 and 1986. During 1996, the ERF approved an additional allocation of RM300 million for existing projects. The combination of seed capital and financial assistance has successfully contributed towards reviving Bumiputera entrepreneurs faced with hardship during the recession.

In order to meet the principal objective of the NEP, the Government launched the New Entrepreneurs Fund (NEF) in December 1989. An initial amount of RM750 million was allocated to encourage new Bumiputera entrepreneurs to set up businesses in manufacturing, agriculture, tourism and export oriented industries, as well as the franchise development programme of the Ministry of Entrepreneurial Development (MED). In
view of the encouraging response to the Scheme, its allocation was increased by RM500 million in 1998.

The Special Fund for Tourism (SFT) was set up in March 1990 with an allocation of RM120 million to develop tourism and to finance tourism related projects. All SMEs operating in the tourism field are eligible for funding, as long as the cost of the project does not exceed RM3 million. However, projects costing up to RM5 million may be considered, depending on the merits of each case. The allocation under SFT was increased to RM200 million in 1994 (Visit Malaysia Year).

The Ship Financing Facility was established in 1992 with an allocation of RM600 million. The SFF provides funding for the expansion of cargo carrying capacity in the Malaysian Shipping industry. Smaller shipping companies are given preference in terms of access to financing, up to 50-70 percent of the purchase price of new and second-hand ships. The loans are granted at attractive fixed rate terms, for up to 10 years duration.

The Fund for Food (3F) Scheme is designed to promote investment in new productive capacity for primary food production and processing (fresh and sea water seafood, animal husbandry, vegetables and fruits). The 3F scheme encourages the efficient marketing of food and food products, and also covers processed food where raw food materials are sourced from domestic sources. Export-oriented projects are also eligible, provided at least one-half of the total production is sold in the domestic market. The Scheme was established in January 1993 with an initial allocation of RM300 million. The Scheme faced many operational problems in promoting new productive capacity and financing new investments at reasonable cost (Abdul Hamid and Abdul Rashid, 1996).

The Bumiputera Industrial Fund (BIF) was established in January 1993 with an allocation of RM100 million. The fund aims to stimulate the growth of SMEs, with at least 70 percent Bumiputera management and equity control, with the assistance of participating principal companies which support SMEs under an umbrella concept. The BIF provides
maximum loans of RM2.5 million, at an interest rate of 5 percent for a maximum tenure of eight years.

The Abandoned Housing Projects Fund (AHPF) was launched in 1990 with an allocation of RM600 million to revive housing projects that had been abandoned during the 1985-86 recession. As at the end of 1996, 78 applications amounting to RM377 million had been approved under the AHPF.

The Fund For Small and Medium Industries (FSMI) was established in January 1998 with an initial allocation of RM1 billion, to promote productive capacity, in selected sectors, namely manufacturing, agro-based and supporting service industries. This allocation is part of the Government’s efforts to promote exports and new growth industries, including high technology industries. The Government increased its allocation to the fund to RM1.5 billion in May 1998. As at the end of April 1998, 1,718 applications amounting to RM1,455.9 million loans had been approved under the Scheme (Berita Harian, 18 May 1999).

The Rehabilitation Fund For Small and Medium Industries (RFSMI) was launched in November 1998 with an allocation of RM750 million, to help SMEs restructure their existing debts and to provide financial assistance to viable firms facing temporary cash flow problems. The minimum loan is RM50,000 and maximum loan is RM5 million for expansion in productive capacity and/or working capital. While RFSMI loans cannot be used for refinancing existing credit facilities, banking institutions may utilise up to 30 percent of an approved facility to refinance and restructure existing non-performing loans. In the wake of lower utilisation of the RFSMI, BNM announced that the allocation of RM750 million was to be reduced to RM500 million in August 1999. The excess RM250 million would be allocated to the FSMI, a Scheme which has a higher utilisation rate.
Funding Schemes Administered by other Government Agencies

Apart from BNM Schemes channelled through the other commercial banks, financial institutions, other Government agencies play an active role in promoting the growth of SMEs, particularly Bumiputera SMEs.

The Soft Loans for Automation and Modernisation initiative channels funds through Bank Pembangunan Malaysia Berhad (Development Bank Malaysia Berhad), providing assistance for the modernisation of small SMEs and promoting the wider use of modern technology. BPMB aims to give out RM350 million worth of loans to SMEs by the end of 1999. As at the end of April 1999, the Bank had approved 192 applications for funding worth a total of RM163 million (The Star, 23 June 1999).

The Soft Loans for Furniture and Food-Based Products Scheme was renamed Soft Loans for Quality Upgrading in 1994, to encourage applications from a wider range of industries. It was set up by Malaysian Industrial Development Finance (MIDF) with an allocation of RM50 million under the Sixth Malaysia Plan (6MP). An additional amount of RM20 million was approved, as the take-up rate exceeded the RM50 million originally allocated.

The Industrial Technical Assistance Fund (ITAF) fund was set up in 1990 to encourage the development of small and medium scale enterprises into a progressive high quality and modern sector capable of supporting larger enterprises in Malaysia. The Government wanted to ensure the development of technological competency among SMEs, and to encourage the use of outside consultants in upgrading their managerial functions. The current allocated amount for the fund is RM70 million. Despite its good intentions, certain drawbacks occurred during its implementation. Claims take around 16-18 months to be approved and reimbursed. This is unacceptable. In addition, the company must already be operational to be eligible for the grant. These conditions, together with the
bureaucratic delay in the application process, pose a heavy financial burden on applicants (Abdul Hamid and Abdul Rashid, 1996c).

The *Perbadanan Usahawan Nasional Berhad (PUNB) Venture Capital Fund* was launched in 1991 with an allocation of RM100 million, to facilitate the entry of Bumiputera entrepreneurs into strategic industries and commerce. Bumiputera entrepreneurs with viable projects are eligible to apply and are expected to contribute at least 20 percent of the total equity. Priority is given to enterprises producing high value-added and high-technology products for the export market or firms with guaranteed markets under the Vendor Development Programme. Boocock and Wahab (1997) found that PUNB beneficiaries were non-high-tech furniture manufacturers, indicating that the Scheme is not equivalent to private sector venture capital. As mentioned in Section 2.6, the lack of an active venture capital has hindered the development of innovative, high-risk SMEs in Malaysia.

*Majlis Amanah Rakyat (MARA)* is actively involved in matters relating to the formulation and management of Bumiputera industrial and commercial companies to enhance entrepreneurship within the community. Under its loan division, small Bumiputera enterprises with net assets or shareholders' funds of up to RM500,000 are granted credit for the purchase of fixed assets and working capital. In line with the Government's efforts to create and develop a viable Bumiputera Commercial and Industrial Community (BCIC), as outline in the National Development Policy, MARA is actively involved in the formulation and management of Bumiputera industrial and commercial companies.

In summary, therefore, various financing schemes have been established by BNM to make credit available to SMEs. The measures include the imposition of Priority Lending Guidelines, forcing financial institutions to allocate a prescribed proportion of their loans to SMEs and the Bumiputera business community. The CGC has long played a role and the recent launch of the FGS should help viable SMEs lacking collateral to have greater access to credit from four Schemes under its auspices.
The lack of active venture capital has hindered the development of innovative, high-risk SMEs. The conservative lending policies of the commercial banks together with the lack of experienced staff to assess the technological and commercial prospects of SMEs make commercial banks unsuitable for this type of investments.

Despite, the various Schemes offered by BNM through financial institutions, the feeling still persist that SMEs are disadvantaged in the financial market; in particular, there appears to be an 'equity gap' (for share capital and/or long term loans) in Malaysia (Boocock and Wahab, 1997).

Notes
1 Bank Pembangunan Malaysia Berhad (Malaysian Development Bank Berhad) was renamed Bank Pembangunan dan Infrastruktur Malaysia Berhad (Malaysian Development and Infrastructure Bank Berhad) in 1999 to focus in financing of infrastructure projects but its original objective to help SMEs does not change.
APPENDIX 3

FEATURES OF FLEXI GUARANTEE SCHEMES
### Appendix 3: FEATURES OF THE FLEXI GUARANTEE SCHEME (FGS)

| 1. Loan Funds Eligible for Guarantee | 1. Fund for Small and Medium Scale Industries (FSMI)  
| | 2. Rehabilitation Fund for Small and Medium Industries (RFSMI)  
| | 3. New Entrepreneurs Fund (NEF), and  
| | 4. Fund for Food (3F)  
| 2. Eligibility Criteria | Based on the individual eligibility criteria of the FSMI, RFSMI, NEF and FFF. Must be Malaysian owned or Malaysian controlled (majority of shareholding/interest is Malaysian).  
| 3. Maximum Loan Limit | RM5.0 million - FSMI & RFSMI  
| | RM3.0 million - 3F  
| | RM2.0 million - NEF  
| 4. Credit Facilities Covered | Based on the credit facilities eligible under the FSMI, RFSMI, NEF and FFF respectively.  
| 5. Interest Rates | **Lending Rate** | **Cost of Funds**  
| | FSMI 6.5% p.a. | 4%  
| | RFSMI 5.0% p.a. | 1%  
| | 3F 4.0% p.a. | 1%  
| | NEF 6.0% p.a. | 1%  
| 6. Guarantee Cover | Ranging from 30% to 80% as required by the lending institutions. Maximum guarantee cover (for unsecured portion only)  
| | RM2.50 million (manufacturing sector)  
| | RM0.75 million (priority sector)  
| | RM0.50 million (other sectors)  
| | There is no capping of guarantee cover for the secured portion of the loan.  
| 7. Guarantee Fee | The annual guarantee fee, payable in advance annually, is to be borne by the lending institution and is calculated based on the guarantee cover issued.  
| | **Guarantee cover** | **Unsecured portion** | **Secured portion**  
| | 30% | 0.75% | 0.50%  
| | 40% | 0.75% | 0.50%  
| | 50% | 0.75% | 0.50%  
| | 60% | 1.00% | 0.75%  
| | 70% | 1.25% | 1.00%  
| | 80% | 1.50% | 1.25%  
| 8. Participating Financial Institutions | According to participating financial institutions for the FSMI, RFSMI, NEF and FFF respectively.  

**Source:** CGC, 1998
APPENDIX 5.1

QUESTIONNAIRE SURVEY
An Evaluation Of A Government-Backed Loan Scheme In Malaysia

ALL RESPONSES WILL BE TREATED IN THE STRICTEST CONFIDENCE

Would you like a copy of the findings? Yes 1 No 2

Please circle the appropriate number

If Yes, please supply your name, address and telephone number below:

Name........................................................................................................................................
Position.....................................................................................................................................
Address....................................................................................................................................
..................................................................................................................................................
Tel.No......................................................................................................................................

Please return the completed questionnaire in the FREE POST envelope supplied

Thank you for your time and help
1. What is the legal status of your firm?
   - Sole proprietorship
   - Partnership
   - Private Limited Company
   - Other (please specify)

2. In which year was the firm established? Year

3. What is your business activity
   - General Business
   - Manufacturing
   - Agriculture
   - Mining & Quarrying

4. How many people are presently working in your firm? (including owners and full-time employees)
   - 1 - 9
   - 10 - 19
   - 20 - 29
   - 30 - 39
   - 40 - 49
   - 50 & above

5. Gender of the owner/manager
   - Male
   - Female

6. Ethnic group of the owner/manager
   - Bumiputera
   - Chinese
   - Indian
   - Other (please specify)
Could you please indicate your age group

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 20</td>
<td>1</td>
</tr>
<tr>
<td>20 - 29</td>
<td>2</td>
</tr>
<tr>
<td>30 - 39</td>
<td>3</td>
</tr>
<tr>
<td>40 - 49</td>
<td>4</td>
</tr>
<tr>
<td>50 - 59</td>
<td>5</td>
</tr>
<tr>
<td>60 and above</td>
<td>6</td>
</tr>
</tbody>
</table>

Could you please tell us your highest academic qualification

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary school</td>
<td>1</td>
</tr>
<tr>
<td>Lower Certificate of Education (LCE)</td>
<td>2</td>
</tr>
<tr>
<td>Malaysian Certificate of Education (MCE)</td>
<td>3</td>
</tr>
<tr>
<td>Higher School Certificate (HSC)</td>
<td>4</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
</tr>
<tr>
<td>Degree or Equivalent - Science/Technical</td>
<td>6</td>
</tr>
<tr>
<td>Degree or Equivalent - Business/Management</td>
<td>7</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>8</td>
</tr>
</tbody>
</table>
SECTION B
(APPLICATION FOR LOAN BACKED BY NEW PRINCIPAL GUARANTEE SCHEME)

9. Was your business established before you applied for the NPGS or was it formed at that time?
   - Established: 1
   - New: 2

10. Did you have any experience in running a small business before you applied for the NPGS?
   - Yes: 1
   - No: 2

   **IF NO, PLEASE PROCEED TO QUESTION 12**

11. If yes, how many years of business experience?
   - Under 1 year: 1
   - 1 to 3 years: 2
   - 4 to 6 years: 3
   - 7 to 9 years: 4
   - 10 to 12 years: 5
   - 13 to 15 years: 6
   - 16 years or more: 7

12. What external source(s) of financial advice have you used?
   (You may tick more than one, if applicable)
   - None: "
   - Relatives/Friends: "
   - Bank Manager: "
   - Accountant/Auditor: "
   - Chamber of Commerce: "
   - Other (please specify): "

13. Have you attended any entrepreneurial development/business management training courses organised by the government or private sector?
   - Yes: 1
   - No: 2

   **IF NO, PLEASE PROCEED TO QUESTION 15 ON PAGE 4**
14. If yes, who provided the entrepreneurial development/business management training courses? (you may tick more than one, if applicable)

- MARA (Majlis Amanah Rakyat)
- NPC (National Productivity Centre)
- MEDEC (Malaysian Entrepreneurial Development Centre)
- UPMSBDC (University Putra Malaysia Small Business Development Centre)
- Other (please specify)

15. Have you attended any technical training courses organised by the government or private sector?

- Yes
- No

**IF NO, PLEASE PROCEED TO QUESTION 17**

16. If yes, who provided the technical training courses? (you may tick more than one, if applicable).

- CIAST (Centre for Instructor and Advanced Skills Training)
- FRIM (Forest Research Institute of Malaysia)
- PORIM (Palm Oil Research Institute of Malaysia)
- MARDI (Malaysia Industrial Research Development Institute)
- MIMOS (Malaysian Institute of Microelectronics Systems)
- YTCs (Youth Training Centre)
- ITIs (Institute of Training Institutions)
- Other (please specify)

17. Did the firm have a written business plan before seeking to raise the loan? (A definition of a business plan is a document which contains an analysis of the firm’s current position, where it would like to be in the future, and how it plans to get there)

- Yes
- No

18. Did the NPGS finance form part of a finance package?

- Yes
- No

**IF NO, PLEASE PROCEED TO QUESTION 20 ON PAGE 5**
19. If yes, to Question 18, what were the other elements of the package?

<table>
<thead>
<tr>
<th>Element</th>
<th>RM</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPGS Loan</td>
<td></td>
</tr>
<tr>
<td>Owners Equity</td>
<td></td>
</tr>
<tr>
<td>Third Party Equity</td>
<td></td>
</tr>
<tr>
<td>Other Bank Loan</td>
<td></td>
</tr>
<tr>
<td>Bank Overdraft</td>
<td></td>
</tr>
<tr>
<td>MARA Loan</td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

20. How did you use the money raised through the NPGS? (you may tick more than one, if applicable)

- Working Capital
- Purchase of Property
- Purchase of Plant and Machinery
- Other Property Costs
- Product Development
- Other (please specify)

21. If the NPGS had not been available would you still have been able to raise the same amount of finance? (Please circle one)

- Yes, from the same source without delay 1
- Yes, from alternative sources without delay 2
- Yes, from alternative sources with a delay 3
- No, I would have raised less 4
- No, I could not have raised the finance 5

IF YOU COULD HAVE RAISED THE SAME FINANCE WITHOUT DELAY, PLEASE PROCEED TO QUESTION 23, ON PAGE 6, OTHERWISE PROCEED TO QUESTION 22

22. Would the absence of the NPGS have had any impact on the development of your business?

- No, business would have developed as it did 1
- Yes, development of business would have been slower 2
- Yes, business would not have developed as much as it has 3
- Yes, business would not have survived 4
23. Why did you prefer to accept the NPGS loan?

(please circle the appropriate number for each reason on a scale of 1 to 5)

1 = Strongly Disagree  2 = Disagree  3 = Uncertain  4 = Agree  5 = Strongly Agree

<table>
<thead>
<tr>
<th>Reason</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rate of interest was lower</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No need to have collateral or security</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Easy to apply through finance companies</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Easy to apply through commercial banks</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>No other choice</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Low repayment</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

24. What sort of security/guarantees did you have to provide to obtain the NPGS loan?

- None 1
- Personal guarantee/other guarantors 2
- Mortgage on properties 3
- Stock exchange securities 4
- Fixed Deposit 5
- Other (please specify) 6

25. When preparing your application for the NPGS you were asked to forecast the anticipated levels of turnover, profit and employment. In general, how has your business performed against those forecasts?

- Exceeded 1
- Achieved 2
- Under-Achieved 3

26. Can you estimate your current annual turnover? (to the nearest thousand)

RM [Redacted]

If your firm has no turnover, please proceed to question 28 on page 7
With the money raised through the NPGS, by how much has your annual turnover increased?

- Increased by 1 to 5 percent
- Increased by 6 to 10 percent
- Increased by 11 to 15 percent
- Increased by 16 to 20 percent
- Increased more than 20 percent
- No Difference
- Decreased (please specify)

With respect to profit can you estimate your current annual net profit margin (pre-tax)?

With the money raised through the NPGS, what increased level of profit margin have you achieved?

- Increased by 1 to 5 percent
- Increased by 6 to 10 percent
- Increased by 11 to 15 percent
- Increased by 16 to 20 percent
- Increased more than 20 percent
- No Difference
- Decreased (please specify)

What was the level of employment in your company at the time you applied for the loan provided under the NPGS?

With the money raised through the NPGS what level of employment do you think you have achieved?

- Increased by 1 to 5 employees
- Increased by 6 to 10 employees
- Increased by 11 to 15 employees
- Increased by 16 to 20 employees
- Increased more than 20 employees
- No difference
- Decreased (please specify)

Since receipt of the NPGS what proportion of your new business has come from:

- Within your state
- Elsewhere in Malaysia
- Export business
What proportion of your increased sales do you think you have won from:

- Competitors located in your state [□□□□ %]
- Other firms in Malaysia [□□□□ %]
- Overseas firms [□□□□ %]

How important do you consider the NPGS has been to your firm?

- Vital 1
- Very Important 2
- Important 3
- Unimportant 4

If there any other aspects of the New Principal Guarantee Scheme you would like to comment on please do so below:

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

Thank you for your co-operation. Your contribution to this study is highly appreciated. Please return this questionnaire using the FREEPOST ENVELOPE provided.

Address for correspondence:

Director
Entrepreneurial Development Institute
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman
(Attention: Encik Mohd Noor Mohd Shariff)
Tuan/Puan

Penyelidikan Mengenai Skim Pinjaman Sokongan Kerajaan Di Malaysia

Perusahaan Kecil dan Sedernama (PKS) merupakan pengerak bagi pertumbuhan negara maju dan membangun. Kemudahan kredit adalah penting untuk memastikan bahawa PKS dapat memainkan peranan dalam mengerakkan peluang pekerjaan, memperteguhkan rantai industri, dan meningkatkan pendapatan ekspot.

Skim pinjaman sokongan kerajaan memainkan peranan yang penting dalam pembiayaan PKS yang mempunyai kekurangan cagar dan kemudahan kredit. Syarikat Jaminan Kredit Malaysia Berhad (CGC) di beri tanggungjawab dalam proses ini. Sepanjang tempoh hayatnya, CGC ialah banyak membantu sebahagian besar PKS melalui Skim Jaminan Utama Baru (SJUB).


Jika tuan/puan mempunyai pertanyaan mengenai penyelidikan ini sila kemukakan kepada:

Dr. Hamzah Dato' Abd Rahman
Pengarah
Institut Pembangunan Keusahawanan
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman

Sekian, terima kasih.

Yang benar,

Mo. Noor Mohd Shariff
Penyelidik
Penilaian Skim Pinjaman Sokongan Kerajaan Di Malaysia

SEGALA MAKLUMAT ADALAH SULIT

Adakah anda ingin salinan laporan kajian?  

Ya 1  Tidak 2  

Sila bulatkan nombor yang berkenaan

Jika Ya, sila berikan nama dan alamat syarikat dibawah:

Nama........................................................................................................................................

Jawatan........................................................................................................................................

Alamat..........................................................................................................................................  

No. Telefon......................................................................................................................................

Sila kembalikan borang soal-selidik yang telah dipenuhi di sampul surat bersetem yang disediakan

*Terima kasih kerana kerjasama anda*
## BAHAGIAN A
LATARBELAKANG FIRMA DAN USAHAHAN/PEMILIK-PENGURUS

Sila bulatkan nombor atau tandakan di kotak seperti di arahkan

1. **Apakah status firma anda?**
   - Perseorangan .......................... 1
   - Perkongsian ................................ 2
   - Syarikat Sendirian Berhad .......... 3
   - Lain-lain *(sila nyatakan)* ............... 4

2. **Dalam tahun berapakah firma anda ditubuhkan?** Tahun............

3. **Apakah aktiviti perniagaan anda?**
   - Perniagaan Am .................................. 1
   - Pembuatan .................................... 2
   - Pertanian ................................... 3
   - Perlombongan & Kuari ...................... 4

4. **Berapa ramaikah kakitangan dalam firma anda pada masa sekarang?** *(termasuk pemilik dan pekerja sepenuh masa)*
   
<table>
<thead>
<tr>
<th>Jumlah Kakitangan</th>
<th>Nombor</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 9</td>
<td>1</td>
</tr>
<tr>
<td>10 - 19</td>
<td>2</td>
</tr>
<tr>
<td>20 - 29</td>
<td>3</td>
</tr>
<tr>
<td>30 - 39</td>
<td>4</td>
</tr>
<tr>
<td>40 - 49</td>
<td>5</td>
</tr>
<tr>
<td>50 &amp; ke atas</td>
<td>6</td>
</tr>
</tbody>
</table>

5. **Jantina pemilik/pengurus**
   - Lelaki ............................................... 1
   - Perempuan .......................................... 2

6. **Kumpulan kaum pemilik/pengurus**
   - Bumiputera ........................................ 1
   - Cina ............................................... 2
   - India .............................................. 3
   - Lain-lain *(sila nyatakan)* ..................... 4
7. **Sila nyatakan kategori umur anda**

<table>
<thead>
<tr>
<th>Kategori Umur</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bawah 20 tahun</td>
<td>1</td>
</tr>
<tr>
<td>20 - 29 tahun</td>
<td>2</td>
</tr>
<tr>
<td>30 - 39 tahun</td>
<td>3</td>
</tr>
<tr>
<td>40 - 49 tahun</td>
<td>4</td>
</tr>
<tr>
<td>50 - 59 tahun</td>
<td>5</td>
</tr>
<tr>
<td>60 tahun &amp; ke atas</td>
<td>6</td>
</tr>
</tbody>
</table>

8. **Sila nyatakan tahap kelayakan akademik anda yang tertinggi**

<table>
<thead>
<tr>
<th>Tahap Kelayakan Akademik</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sekolah Rendah</td>
<td>1</td>
</tr>
<tr>
<td>Sijil Rendah Pelajaran (SRP)</td>
<td>2</td>
</tr>
<tr>
<td>Sijil Pelajaran Malaysia (SPM)</td>
<td>3</td>
</tr>
<tr>
<td>Sijil Tinggi Pelajaran (STP)</td>
<td>4</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
</tr>
<tr>
<td>Ijazah atau setaraf - Sains/Teknikal</td>
<td>6</td>
</tr>
<tr>
<td>Ijazah atau setaraf - Perniagaan/Pengurusan</td>
<td>7</td>
</tr>
<tr>
<td>Lain-lain (sila nyatakan)</td>
<td>8</td>
</tr>
</tbody>
</table>
9. Adakah perniagaan anda di tubuhkan sebelum atau semasa permohonan SJUB di buat?
   Lama (sebelum)  
   Baru (semasa)  
   1  
   2

10. Sebelum anda memohon SJUB, adakah anda mempunyai apa-apa pengalaman mengurus perniagaan kecil dan sederhana?
   Ada  
   Tiada  
   1  
   2

JIKA TIADA, SILA TERUS KE SOALAN 12

11. Jika ada, berapakah tahun pengalaman perniagaan anda?
   Di bawah 1 tahun  
   1 ke 3 tahun  
   4 ke 6 tahun  
   7 ke 9 tahun  
   10 ke 12 tahun  
   13 ke 15 tahun  
   16 tahun atau ke atas  
   1  
   2  
   3  
   4  
   5  
   6  
   7

12. Dari manakah anda memperolehi khidmat nasihat berkaitan dengan kewangan perniagaan anda? (anda boleh tandakan lebih dari satu, jika berkaitan)
   Tiada  
   Ahli Keluarga/Rakan  
   Pegawai Bank  
   Akuntan/Juru Audit  
   Dewan Perniagaan/Persatuan Perniagaan  
   Lain-lain (sila nyatakan)  

13. Pernahkah anda menghadiri kursus atau latihan dalam bidang pembangunan keusahawanan/pengurusan perniagaan yang dianjurkan oleh agensi kerajaan atau pihak swasta?
   Pernah  
   Tidak Pernah  
   1  
   2

JIKA TIDAK PERNAH, SILA TERUS KE SOALAN 15 DI MUKA SURAT 4
14. Jika pernah, organisasi manakah yang menyediakan kursus pembangunan keusahawanan/pengurusan perniagaan? (Anda boleh tandakan lebih dari satu, jika berkaitan)

- MARA (Majlis Amanah Rakyat)
- NPC (Pusat Produktiviti Nasional)
- MEDEC (Pusat Pembangunan Keusahawanan Malaysia)
- UPMSBDC (Pusat Pembangunan Perniagaan Universiti Putra Malaysia)
- Lain-lain (sila nyatakan) ..........................................

15. Pernahkah anda menyertai mana-mana kursus latihan teknikal yang dianjurkan oleh agensi kerajaan atau swasta?

- Pernah
- Tidak Pernah

JIKA TIDAK PERNAH, SILA TERUS KE SOALAN 17

16. Jika pernah, organisasi manakah yang menganjurkan kursus latihan teknikal? (Anda boleh tandakan lebih dari satu, jika berkaitan)

- CIAST (Pusat Latihan Instruktur dan Kemahiran Lanjutan)
- FRIM (Institut Penyelidikan Perhutanan Malaysia)
- PORIM (Institut Penyelidikan Kelapa Sawit Malaysia)
- MARDI (Lembaga Penyelidikan Pembangunan Pertanian Malaysia)
- MIMOS (Institut Sistem Mikroelektronik Malaysia)
- YTCs (Pusat Latihan Belia)
- ITIs (Institut Latihan Institusi)
- Lain-lain (sila nyatakan) ........................................

17. Adakah firma anda memiliki dokumen Rancangan Perniagaan? (Definisi sebagai suatu dokumen yang mengandungi analisis kedudukan perniagaan masa kini dan perancangan masa hadapan)

- Ada
- Tiada

18. Adakah pinjaman Skim Jaminan Utama Baru (SJUB) sebahagian daripada pakej pinjaman yang anda dapat?

- Ya
- Tidak

JIKA TIDAK, SILA TERUS KE SOALAN 20 DI MUKA SURAT 5
19. Jika ya, kepada Soalan 18, apakah perkara-perkara yang lain di dalam pakej pinjaman SJUB tersebut?

- Pinjaman Skim Jaminan Utama Baru (SJUB)
- Ekuiti Pemilik
- Ekuiti Pihak Ketiga
- Pinjaman dari lain-lain Bank
- Overdraft Bank
- Pinjaman MARA
- Lain-lain (sila nyatakan) ....................................

JUMLAH KESELURUHAN

20. Bagaimana anda menggunakan pinjaman yang di dapat melalui SJUB? (Anda boleh tandakan lebih dari satu, jika berkaitan)

- Modal kerja
- Pembelian hartanah
- Pembelian loji dan mesin
- Kos harta benda yang lain
- Pembangunan Barangan
- Lain-lain (sila nyatakan) ....................................

21. Jika anda tidak mendapat pinjaman di bawah SJUB, adakah anda boleh mendapatkan pinjaman lain dengan jumlah yang di kehendaki? (Sila bulatkan nombor yang berkaitan)

- Ya, daripada sumber institusi kewangan yang sama tanpa kelewatan
- Ya, daripada sumber institusi kewangan yang lain tanpa kelewatan
- Ya, daripada sumber institusi kewangan yang lain dengan ada kelewatan
- Tidak, saya akan mendapat pinjaman yang kurang daripada jumlah yang di pohon
- Tidak, saya tidak dapat pinjaman yang dikehendaki

22. Adakah tanpa pinjaman daripada SJUB boleh memberi kesan terhadap perkembangan perniagaan anda?

- Tidak, perniagaan akan berkembang seperti biasa
- Ya, perniagaan akan berkembang dengan perlahan
- Ya, perniagaan tidak akan berkembang seperti mana yang dikehendaki
- Ya, perniagaan tidak akan hidup
23. Kenapa anda menerima pinjaman di bawah SJUB?
(Sila bulatkan nombor yang berkenaan bagi setiap alasan mengikut skala 1 hingga 5)

<table>
<thead>
<tr>
<th>Alasan</th>
<th>1= Sangat Tidak Setuju</th>
<th>2=Tidak Setuju</th>
<th>3=Tidak Pasti</th>
<th>4=Setuju</th>
<th>5=Sangat Setuju</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kadar faedah adalah rendah</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Tidak memerlukan cagar atau sekuriti</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Mudah membuat permohonan melalui syarikat kewangan di seluruh negara</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Mudah membuat permohonan melalui bank perdagangan di seluruh negara</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Tiada pilihan lain</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Bayaran balik rendah</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Lain-lain (sila nyatakan)</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

24. Apakah jenis sandaran/jaminan yang telah anda kemukakan semasa mendapatkan pinjaman di bawah SJUB?

- Tiada
- Jaminan persendirian/lain-lain penjamin
- Cagaran terhadap harta
- Sijil saham
- Deposito Simpanan Tetap
- Lain-lain (sila nyatakan)

25. Apabila menyedia permohonan anda untuk pinjaman di bawah SJUB, anda di kehendaki meramalkan jangkaan pusing ganti, keuntungan dan pekerjaan. Umumnya, bagaimana pencapaian perniagaan anda berbanding dengan ramalan tersebut?

- Terlebih jangkaan
- Tercapai
- Di bawah jangkaan

26. Bolehkah anda memberi anggaran pusing ganti tahunan? [RM 0,000]
(dalam ribu ringgit terdekat)

JIKA FIRMA ANDA TIDAK MEMPUNYAI ANGGARAN PUSING GANTI TAHUNAN, SILA TERUS KE SOALAN 28 DI MUKA SURAT 7
28. Berkaitan dengan keuntungan, bolehkah anda memberi anggaran keuntungan margin bersih (sebelum cukai)?

29. Apabila memperolehi pinjaman di bawah SJUB, berapa peratuskah pusing ganti tahunan anda meningkat?

- Meningkat daripada 1 hingga 5 peratus
- Meningkat daripada 6 hingga 10 peratus
- Meningkat daripada 11 hingga 15 peratus
- Meningkat daripada 16 hingga 20 peratus
- Meningkat lebih daripada 20 peratus
- Tiada perbezaan
- Menurun (sila nyatakan)

30. Apakah tahap pengambilan pekerja di dalam firma anda semasa anda memohon mendapat pinjaman di bawah SJUB?

31. Apabila menerima pinjaman melalui SJUB, berapakah tahap peningkatan keuntungan bersih yang anda capai?

- Meningkat daripada 1 hingga 5 peratus
- Meningkat daripada 6 hingga 10 peratus
- Meningkat daripada 11 hingga 15 peratus
- Meningkat daripada 16 hingga 20 peratus
- Meningkat lebih daripada 20 peratus
- Tiada perbezaan
- Menurun (sila nyatakan)

32. Sejak menerima pinjaman di bawah SJUB, berapa peratuskah daripada perniagaan baru anda datang dari:

- Negeri tempat perniagaan anda
- Merata tempat dalam negara Malaysia
- Ekspot ke luar negeri
33. Berapa peratus daripada peningkatan jualan yang anda fikir dapat dimenangi daripada:

<table>
<thead>
<tr>
<th>Pesaing di negeri tempat perniagaan anda</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lain-lain firma dalam Malaysia</td>
<td>%</td>
</tr>
<tr>
<td>Firma luar negeri</td>
<td>%</td>
</tr>
</tbody>
</table>

34. Bagaimana pendapat anda mengenai kepentingan SJUB terhadap perniagaan anda?

- Perlu 1
- Sangat Penting 2
- Penting 3
- Tidak Penting 4

35. Jika ada perkara-perkara lain yang anda ingin berikan komen mengenai Skim Jaminan Utama Baru, bolehlah anda menulis di bawah:

<p>| |</p>
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Terima kasih kerana kerjasama anda. Sumbangan anda terhadap kajian ini sangat dihargai. Sila kembalikan borang soal selidik ini menggunakan sampul surat bersetem yang di lampirkan.

Alamat perhubungan:

Pengarah
Institut Pembangunan Keusahawanan
Universiti Utara Malaysia
06010 UUM Sintok
Kedah Darul Aman
APPENDIX 5.3

QUESTIONNAIRE SURVEY
(TRANSLATION - MANDARIN)
13 March 1998

尊敬的：

中小企业在开发中或已开发国家已成为经济成长的动发生变化，尤其注重他们在创造就业机会、塑造工业基础、及创造外销出口上所扮演的角色。

中小企业由于缺乏担保品及偿还信诺等问題，于是政府支助的贷款补助金显现得相为重要。贷款过程中，CGC（The Credit Guarantee Corporation）扮演举足轻重角色。在CGC经营过程期间，透过NPGS（New Principal Guarantee Scheme）程序，助了相当数目的中小企业。

目前本研究小组正在研究哪些因素影响NPGS的效果与效果，希望阅下能回答所附问卷问题。您所提供的资料将被严格保密处理。在他们的研究结果内，公司名称得。阅下姓名将不被提及。随函附寄一封CGC总经理支持本研究的信件以供参考。

依照99（1）银行金融法规，我们必须取得您下同意书，以便访谈贵公司之信贷借款银行，带附上标准同意书，敬请阅下签名以示同意，并请用邮回信封寄回此同意书与问卷。

贵公司或阅下如有任何问题关于此项研究，敬请教。

Dr. Hamzah Dato’ Abd Rahman
Director
Entrepreneurial Development Institute
University Utara Malaysia
06010 UUM, Sintok
Kedah Darul Aman

费此谢谢阅下协助。敬颂商祺

研究生
Mohd Noor Mohd Shariff 敬上
## 第一部分：公司和业务

请按照指示圈出填写或填写内部分数。

1. 贵公司是什么法律形式下成立？
   - 有限
   - 私人有限公司
   - 其他(请说明性质)

2. 贵公司在什么年度成立？年

3. 贵公司属于哪个行业领域？
   - 农业
   - 制造业
   - 矿业和采石业

4. 多少人在贵公司服务（包括老板，包括及兼职的雇员人数）？
   - 五人及以下
   - 六至九人
   - 十至十九人
   - 二十至二十九人
   - 三十至三十九人
   - 四十至四十九人
   - 五十人及以上

5. 老板或经理的性别
   - 男
   - 女

6. 老板或经理属于哪种民族？
   - 土族
   - 华人
   - 印度人
   - 其他（请说明）
7. 请告诉我您属于那一组。

<table>
<thead>
<tr>
<th>年龄范围</th>
<th>数量</th>
</tr>
</thead>
<tbody>
<tr>
<td>少于二十岁</td>
<td>1</td>
</tr>
<tr>
<td>二十至二十九岁</td>
<td>2</td>
</tr>
<tr>
<td>三十至三十九岁</td>
<td>3</td>
</tr>
<tr>
<td>四十至四十九岁</td>
<td>4</td>
</tr>
<tr>
<td>五十至五十九岁</td>
<td>5</td>
</tr>
<tr>
<td>六十岁以上</td>
<td>6</td>
</tr>
</tbody>
</table>

8. 请告诉我您阁下最高的学历？

<table>
<thead>
<tr>
<th>学历</th>
<th>数量</th>
</tr>
</thead>
<tbody>
<tr>
<td>小学</td>
<td>1</td>
</tr>
<tr>
<td>初中证书</td>
<td>2</td>
</tr>
<tr>
<td>高中证书</td>
<td>3</td>
</tr>
<tr>
<td>高中文凭</td>
<td>4</td>
</tr>
<tr>
<td>专业文凭</td>
<td>5</td>
</tr>
<tr>
<td>学位或同等一(理科或工科)</td>
<td>6</td>
</tr>
<tr>
<td>学位或同等二(文科或管理)</td>
<td>7</td>
</tr>
<tr>
<td>其他(请注明)</td>
<td>8</td>
</tr>
</tbody>
</table>
第三部分：申请贷款的新政策保障计划（NPCC）

9. 是否在公司成立五周年之前申请新政策保障计划（NPCC）?

是 □ 否 □

10. 您是否有任何经营大型企业的经验？

有 □

没有 □

如果否，现反请回答第二项问题。

11. 如果在贵公司有多年经营大型企业经验？

少于一年 □

一至三年 □

四至六年 □

七至九年 □

十至十二年 □

十三至十五年 □

十五年以上 □

12. 在作出贷款的决定时，您是否在获取额外的咨询？

如果有：

联系人 □

银行经理 □

会计师或财务师 □

其他 □

13. 您是否有参与过任何政策或私人举办的社会或商业管理课程或讲座？

有 □

没有 □

如果没有，请回答第四部分的顶问题。
14. 如果有，接触过企业家举办的商业或管理培训课程（如图所示）

MARA (Malaysia Annual Exposition)
NBCC (National Productivity Centre)
MDEOC (Malaysian Entrepreneur Development Co-operative)
LMBO (University of Technology Malaysia Small Centre)
其他（请说明）

15. 你是否有参加过政府或私人举办的任何技术培训课程？

若有

如果曾经，现在回答第15项问题

16. 如果有，请分别列出培训课程（如图所示）

CATI (Centre for Aircraft and Industrial Training)
FRI (Forest Research Institute of Malaysia)
PA (P hoops Air Company of Malaysia)
MAF (Malaysian Aerospace Research Flight Institute)
MAID (Malaysian Institute of Information Technology)
YIT (Youth IT Institute)
ITC (Institute of Technology Malaysia)
其他（请说明）

17. 你公司是否有针对员工的持续改进培训计划？（即：为持续改进目前情况而制定

未来计划而设定目标的计划等）

是

不是

18. 新政策保障资金计划是本地化资金集团

是

不是

如果有，请回答第16项的第二十项问题
19. 如果你是台商，除上述问题外，还有其他融资问题吗？

<table>
<thead>
<tr>
<th>贷款</th>
<th>资金</th>
<th>资金</th>
<th>资金</th>
<th>资金</th>
<th>资金</th>
<th>资金</th>
</tr>
</thead>
<tbody>
<tr>
<td>厂商资金</td>
<td>第三方资金</td>
<td>其他银行贷款</td>
<td>银行贷款</td>
<td>MPA 贷款</td>
<td>其他（请说明）</td>
<td>总额</td>
</tr>
</tbody>
</table>

20. 请问如何应用新政策保障计划的资金？（如填写、转款等）

<table>
<thead>
<tr>
<th>流动资金</th>
<th>购买资金</th>
<th>购买工厂及设备</th>
<th>其他资金费用</th>
<th>产品研发</th>
<th>其他（请说明）</th>
<th>总额</th>
</tr>
</thead>
</table>

21. 如果没有获得新政策保障计划的资金，下列是否能够得到相应的资金支持？

| 可以同时获得同样的资金 | 1. | 可以同时获得选择的资金 | 2. | 能，我将获得选择的资金 | 3. | 不可以，我将获得选择的支持 | 4. | 不可以，我将不会获得资金 | 5. |

如果因下未能能获得同样的资金，继续填写第22的问题，否则，继续填写第22的问题至第22页。

22. 企业的发展是否受不同时期政策的影响？

| 不会 | 1. | 企业的发展受到政策的影响 | 2. | 会，企业的发展将受到政策的影响 | 3. | 会，企业的发展将不会受到影响 | 4. | 会，企业将受到政策的影响 | 5. |

第22页
23. 为什么阁下特别选择这个新政策计划的贷款？
（请在下-个原因的括号内打圈圈）。

1 = 不同意 2 = 不同意 3 = 不定 4 = 同意 5 = 同意

<table>
<thead>
<tr>
<th>原因</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>利息比较低</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>不需要有附属或担保</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>借款容易在金融公司申请</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>借款容易在银行申请</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>没有其他选择</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>贷款的期限长短</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>借款原因（请说明）</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

24. 阁下是以那一类担保作为担保来获得NAGS的贷款？

   - 私人的担保或其他保证
   - 企业的抵押
   - 预期交易
   - 贷款担保
   - 其他（请说明）

25. 当阁下在申请NAGS中，必须预测营业额数，阁下在填写上，阁下
   如何预测营业额数的业务成就？

   - 与预测   | 1 |
   - 完成     | 2 |
   - 完成之下 | 3 |

26. 阁下是否有计划负债公司的营业额？
   （以千为单位）

   |          | 1 | 2 | 3 |

如果营业额没有营业额，请先回答第七面的第二十八问题。

第6页
27. 从NPS获益的项目：各公司去年的NPS变化情况如下表所示。

<table>
<thead>
<tr>
<th>NPS增长情况</th>
<th>计数</th>
</tr>
</thead>
<tbody>
<tr>
<td>从一星低增加到五星高</td>
<td>1</td>
</tr>
<tr>
<td>从二星低增加到三星高</td>
<td>2</td>
</tr>
<tr>
<td>从三星低增加到四星高</td>
<td>3</td>
</tr>
<tr>
<td>从四星低增加到五星高</td>
<td>4</td>
</tr>
<tr>
<td>增加超过五星级以上</td>
<td>5</td>
</tr>
<tr>
<td>没有差别</td>
<td>6</td>
</tr>
<tr>
<td>减少（请说明）</td>
<td>7</td>
</tr>
</tbody>
</table>

28. 按照贵公司的盈利水平，以下是否可以作为今年来预测未来业绩的参考？

29. 从NPS获益的项目：各公司去年NPS变化情况如下表所示。

<table>
<thead>
<tr>
<th>NPS增长情况</th>
<th>计数</th>
</tr>
</thead>
<tbody>
<tr>
<td>从一星低增加到五星高</td>
<td>1</td>
</tr>
<tr>
<td>从二星低增加到三星高</td>
<td>2</td>
</tr>
<tr>
<td>从三星低增加到四星高</td>
<td>3</td>
</tr>
<tr>
<td>从四星低增加到五星高</td>
<td>4</td>
</tr>
<tr>
<td>增加超过五星级以上</td>
<td>5</td>
</tr>
<tr>
<td>没有差别</td>
<td>6</td>
</tr>
<tr>
<td>减少（请说明）</td>
<td>7</td>
</tr>
</tbody>
</table>

30. 在申请NPS支持的同时，贵公司引用多少条建议？

31. 从NPS获益的项目：各公司今年NPS变化情况如下表所示。

<table>
<thead>
<tr>
<th>NPS增长情况</th>
<th>计数</th>
</tr>
</thead>
<tbody>
<tr>
<td>从一星低增加到五星高</td>
<td>1</td>
</tr>
<tr>
<td>从二星低增加到三星高</td>
<td>2</td>
</tr>
<tr>
<td>从三星低增加到四星高</td>
<td>3</td>
</tr>
<tr>
<td>从四星低增加到五星高</td>
<td>4</td>
</tr>
<tr>
<td>增加超过五星级以上</td>
<td>5</td>
</tr>
<tr>
<td>没有差别</td>
<td>6</td>
</tr>
<tr>
<td>减少（请说明）</td>
<td>7</td>
</tr>
</tbody>
</table>

32. 自从获得NPS支持后，各公司变化范围来自哪些部门？

下表给出：

<table>
<thead>
<tr>
<th>部门</th>
<th>计数</th>
</tr>
</thead>
<tbody>
<tr>
<td>产品部门</td>
<td>1</td>
</tr>
<tr>
<td>销售部门</td>
<td>2</td>
</tr>
<tr>
<td>市场部门</td>
<td>3</td>
</tr>
<tr>
<td>客户服务</td>
<td>4</td>
</tr>
<tr>
<td>研发部门</td>
<td>5</td>
</tr>
<tr>
<td>后勤部门</td>
<td>6</td>
</tr>
<tr>
<td>其他部门</td>
<td>7</td>
</tr>
</tbody>
</table>
33. 你认为多少已供的销售增长是来自哪一个的？

海外公司

34. 新政策计划对于贵公司有何等重要？

不可少
非常重
重
不重

35. 如果有其他特殊关于NQS的帮助，你认为什么？
APPENDIX 5.4

COVER LETTER TO RESPONDENTS
March 1998

Dear Sir/Madam,

Small and medium sized enterprises (SMEs) are considered to be the engine of growth in both developed and developing countries. Access to funding is vital to ensure that SMEs play a major role in generating employment opportunities, strengthening industrial linkages, and earning valuable export revenue.

Government-backed loan schemes play a major role in financing SMEs which lack collateral and access to credit. The Credit Guarantee Corporation (CGC) has been charged with a critical role in this process. Over its lifetime, the CGC has assisted a large number of SMEs through the New Principal Guarantee Scheme (NPGS).

We are conducting a survey to identify the factors that determine the utilisation and effectiveness of the NPGS. May I ask you for a small amount of your time to complete the questionnaire enclosed with this letter. The utmost confidentiality will be observed in using the information provided; your name or the name of your organisation will not be used in reporting our research findings. We enclose a copy of a letter from the Assistant General Manager of CGC in support of the study.

We would also like permission to interview your lender. Written consent from you must be obtained in accordance with Section 99(1) (a), Banking and Financial Institution Act, 1989. We enclose a standard letter for your signature giving me this permission. Please return this with the questionnaire in the pre-paid envelope provided.

If you have questions regarding this study please contact:

Dr. Hamzah Dato' Abd Rahman
Director
Entrepreneurial Development Institute
Universiti Utara Malaysia
06010 UUM, Sintok
Kedah Darul Aman

Many thanks in anticipation of your assistance.

Yours sincerely,

Mohd Noor Mohd Shariff
Researcher
APPENDIX 5.5

QUESTIONNAIRE SURVEY
POPULATION AND SAMPLE
### Legal Status

<table>
<thead>
<tr>
<th>Constitution</th>
<th>Population</th>
<th>%</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Limited Co</td>
<td>14,076</td>
<td>38.89</td>
<td>52</td>
</tr>
<tr>
<td>Partnership</td>
<td>5,679</td>
<td>15.94</td>
<td>15</td>
</tr>
<tr>
<td>Sole Proprietorship</td>
<td>16,336</td>
<td>45.17</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>36,203</td>
<td>100.0</td>
<td>92</td>
</tr>
</tbody>
</table>

### Business Activity

<table>
<thead>
<tr>
<th>Business Sector</th>
<th>Population</th>
<th>%</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-manufacturing</td>
<td>30,811</td>
<td>85.11</td>
<td>56</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>5,392</td>
<td>14.89</td>
<td>36</td>
</tr>
<tr>
<td>Total</td>
<td>36,203</td>
<td>100.0</td>
<td>92</td>
</tr>
</tbody>
</table>

### Ethnic Group

<table>
<thead>
<tr>
<th>Racial Composition</th>
<th>Survey Sample</th>
<th>%</th>
<th>Collected Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bumiputera</td>
<td>10,813</td>
<td>30.00</td>
<td>49</td>
</tr>
<tr>
<td>Non-Bumiputera</td>
<td>25,390</td>
<td>70.00</td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td>36,203</td>
<td>100.0</td>
<td>92</td>
</tr>
</tbody>
</table>
APPENDIX 5.6

INTERVIEW CHECK LIST
BORROWERS
# Appendix 5.6

AN EVALUATION OF A GOVERNMENT-BACKED LOAN SCHEME IN MALAYSIA

## Interview With Borrowers

### BACKGROUND OF FIRM AND ENTREPRENEUR/OWNER MANAGER

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Date: <em><strong>/</strong></em>/____</td>
</tr>
<tr>
<td>2.</td>
<td>Time Start: <em><strong>:</strong></em></td>
</tr>
<tr>
<td>3.</td>
<td>Time End: <em><strong>/</strong></em>/____</td>
</tr>
<tr>
<td>4.</td>
<td>Company Name: ____________________________</td>
</tr>
<tr>
<td>5.</td>
<td>Address: __________________________________</td>
</tr>
<tr>
<td>6.</td>
<td>Telephone Number: _________________________</td>
</tr>
<tr>
<td>7.</td>
<td>Interviewee Name: _________________________</td>
</tr>
<tr>
<td>8.</td>
<td>Position: ________________________________</td>
</tr>
<tr>
<td>9.</td>
<td>Company Established: ______________________</td>
</tr>
<tr>
<td>10.</td>
<td>Status of Company (e.g. sole proprietorship, partnership, and plc): ______________________</td>
</tr>
<tr>
<td>11.</td>
<td>Main Activity: ___________________________</td>
</tr>
<tr>
<td>12.</td>
<td>Number of Employees: _____________________</td>
</tr>
<tr>
<td>13.</td>
<td>Does the company operate from other sites or plants?</td>
</tr>
<tr>
<td></td>
<td>Yes [□]</td>
</tr>
<tr>
<td></td>
<td>No [□]</td>
</tr>
<tr>
<td>14.</td>
<td>How many sites, in total, has the firm? __________</td>
</tr>
</tbody>
</table>

---
15. In (refer to file) your firm obtained funds through the NPGS loan. Can you tell me for what purpose those funds were intended and/or why you needed to raise the funds?


16. Why did you decide that you needed/wished to go to an outside investor to raise the finance?


17. When you first decided to seek outside finance what was the total sum you were aiming to raise?


18. What advice was obtained from third party about possible sources of finance?


19. What was the total package of finance of which the NPGS loan formed a part?

<table>
<thead>
<tr>
<th>Type of Finance</th>
<th>Lender/Investor</th>
<th>Amount</th>
<th>Terms/Security</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
20. Before you applied under the NPGS loan, can you tell me which potential lenders (i.e. financial institutions) you approached to try to raise this finance?

Names

(Indicate whether loan or equity investment sought)

21. For any such approaches, can you please tell me:

- whether the lenders were willing to provide some, all or none of the finance you needed?
- why the lenders were unwilling/unable to provide finance?
- why (if appropriate) you refused any offers of finance?

<table>
<thead>
<tr>
<th>Lenders Approached</th>
<th>Response</th>
<th>Reasons for Refusal/Unwillingness to Accept Offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

22. How did you learn about the NPGS loan?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

23. Who suggested applying under NPGS loan?

- Borrower ☐
- Lender ☐
- Advisor ☐
- Other (please specify) ☐
24. Did the decision to use the NPGS loan lead to any change in the size or composition of your intended borrowing?

Led to reduction of amount borrowed
Led to increase in the amount borrowed
Led to use of loan rather than equity
Affected the term of the loan
Other (please specify) ____________

25. If your application for the NPGS loan had not been approved, or if NPGS loan had not been available, what alternatives were open to you?

__________________________________________________________________________

__________________________________________________________________________

__________________________________________________________________________

26. Why did you prefer NPGS loan?

__________________________________________________________________________

__________________________________________________________________________

SECURITY AND GUARANTEES

27. Excluding the NPGS loan what security/guarantees have you had to provide to obtain loans for your business?

__________________________________________________________________________

__________________________________________________________________________

28. At the time of applying through the NPGS loan did you have any other assets, business or personal, which could be used as security for a loan?

__________________________________________________________________________

__________________________________________________________________________
29. What security (if any) did the bank require for the NPGS loan?

30. After you had obtained the CGC loan, did you then have any assets which could be used to raise a loan
   - Yes
   - No
   - Don’t know

31. Can you please detail these assets and their value?

32. Were you willing to use these assets in order to raise finance?
   - Yes
   - No
   - Don’t know

33. Did your lenders know about these assets when the NPGS loan was granted?
   - Yes
   - No

THE ‘PROJECT’

34. Was the NPGS loan used in the way envisaged? (i.e. as described at Q15)
   - YES
   - NO

35. In what way was the use of the funds different from what was intended?
I would like to ask you about the performance of your firm since you obtained the NPGS loan. Could you please tell me the following?

<table>
<thead>
<tr>
<th>Turnover (RM000s)</th>
<th>Year prior to Loan</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Profit (RM000s)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment (FTE)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

If you had not been able to obtain the funds (from any source) which you obtained through the NPGS loan, what do you consider would have been the effect on the performance of your business (as set out at Q39)?

Please Indicate Expected Difference

- Profit would be lower: 
- Profit would be higher: 
- Sales would be lower: 
- Sales would be higher: 
- Employment would be lower: 
  Number (FTE): 
- Employment would be higher: 
  Number (FTE): 
- Would not be in business at all: 
- Other: 

Have you undertaken any important investment projects since the NPGS loan was obtained?

YES  □ 1
NO   □ 2
39. What have these been and how they affected the development of business?

<table>
<thead>
<tr>
<th>Description</th>
<th>Sum Involved</th>
</tr>
</thead>
</table>

40. Would this investment have occurred if your original project supported by NPGS had not taken place?

41. Please explain why you consider this to be the case?

42. Has the NPGS loan enabled you to attract new customers?

   YES ☐ 1 Go to Q46
   NO ☐ 2 Go to Q47

   (Please indicate annual value of new business)

43. What proportion of this business has come from:
   a. within the federal territory ______ %
   b. within the state of Selangor ______ %
   c. within the state of Perak ______ %
   d. elsewhere in Malaysia ______ %
   e. export business ______ %
44. Can you name your three most important competitors?

<table>
<thead>
<tr>
<th>Name</th>
<th>Location (Town/Country)</th>
</tr>
</thead>
<tbody>
<tr>
<td>a.</td>
<td></td>
</tr>
<tr>
<td>b.</td>
<td></td>
</tr>
<tr>
<td>c.</td>
<td></td>
</tr>
</tbody>
</table>

45. Do you think that you have gained market share from these competitors as a result of the investment made with the aid of NPGS finance?
   - Yes ☐ 1
   - No ☐ 2

46. What proportion of your increased sales do you think you have won from:
   - competitors located within your states _______ %
   - other firms in Malaysia _______ %
APPENDIX 5.7

INTERVIEW CHECK LIST
LENDERS
AN EVALUATION OF A GOVERNMENT-BACKED LOAN SCHEME IN MALAYSIA
INTERVIEW WITH LENDERS

BACKGROUND

1. Date: ________/______/______  2. Time Start: ______:______  3. Time End: ________/______

4. Interviewee: _____________________________

5. Lending Institution: _____________________________

6. Address: _____________________________

7. Telephone Number: _____________________________

8. Company Name: _____________________________

9. Address: _____________________________

10. Borrowers Name: _____________________________

11. Was the borrower a new or existing customer?

   _____________________________

   _____________________________

   _____________________________

12. What banking services had you provided to the company at that time?

   _____________________________

   _____________________________

   _____________________________
13. When did the firm approach you for finance?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

14. What information did they provide?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

15. What other information did you require to perform an appraisal of the project and its associated risk?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

16. What additional information do you normally seek for investments with a higher than average rate of risk?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

17. What impact does the associated risk have on the interest rate you apply?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________

18. Who suggested the NPGS?

______________________________________________________________________________

______________________________________________________________________________

______________________________________________________________________________
Security

19. Had the firm already pledged any form of security to the bank?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

20. How did you ascertain whether or not further security was available?
   - offer by customer?
   - research by bank?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

21. What security was available at the time of this application? Was this used for the NPGS loan?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

FINANCE ADDITIONALITY

22. At the time the firm applied for the NPGS loan what alternative sources or types of finance were available to the firm?

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________

23. Which of these, if any, were considered by the firm? (Probe for the NPGS loans from other providers.)

________________________________________________________________________

________________________________________________________________________

________________________________________________________________________
24. Why was the NPGS chosen in this case?


25. In the absence of the NPGS do you think the firm could have raised the loan required?


26. Why do you consider this to be the case?


27. What offer would your bank have made to the firm in the case without the NPGS? (Probe for the amount of loan and terms and conditions including security.)


28. Are you aware of any additional finance raised by the firm which was contingent on the receipt of an NPGS loan?


29. Has the firm approached your bank or to your knowledge other banks for further loans?


30. When, and for how much did the firm apply?
31. What was your response to the firm?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

32. How did your previous experience with the firm under the NPGS affect your response?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

33. Has the firm met all interest and capital payments on the due date? (Ascertain details if not.)

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

34. What impact do you think the NPGS loan has had on the firm?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

35. How does its actual performance since receiving the NPGS loan compare with its forecast performance at the time of application?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

36. What factors do you think explain this?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
37. In the absence of the NPGS would you grant this firm a loan now?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

38. If this firm approached you for a loan in the future in an improved economic climate would you alter your response as given at question 44 above?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

LENDING UNDER THE NPGS

39. How many NPGS applications and actual loans have you handled under the NPGS at this branch?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

40. What is bank policy on the NPGS and what it should be used for, as you understand it?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

41. What are the procedures for dealing with the NPGS applications?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

42. How are Bank Negara targets for the NPGS facilities advised to your branch?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

43. How do the terms and conditions of NPGS finance compare with those for commercial lending to small firms?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________

44. Can you briefly summarise your experience with the NPGS so far, relating to the specific cases you have handled?

__________________________________________________________________________
__________________________________________________________________________
__________________________________________________________________________
45. Are there any changes which you think could be made to further improve the operation of the NPGS?
APPENDIX 5.8

ISSUES IN CASE STUDIES
Principal issues to be discussed

A. Application for NPGS loan
   - Purpose and amount of loan
   - Decision to use the NPGS
   - Total package of finance of which NPGS loan formed a part
   - Potential lenders approached

B. Security and Guarantees

C. Impact of NPGS loan
   - Performance of firm since obtaining the NPGS loan
   - Important investment projects since the NPGS loan was obtained
APPENDIX 5.9

LETTER ASKING FOR PARTICIPATION IN CASE STUDIES
April 29, 1998

Mr F
Managing Director
F Furniture Export Sdn. Bhd
Lot 100, Hulu Bernam
35900 Tanjong Malim Pos
Peral Darul Ridzuan

Dear Mr F,

With reference to my survey on the study of a government-backed loan scheme in Malaysia (NPGS) under the Credit Guarantee Corporation loan, I thank you for sending back the questionnaire.

At this stage in the research project, I am very keen to conduct a short follow-up on selected borrowers. I hope that you will be prepared to participate in this study. I can assure you that all information will be kept confidential, and the results will be presented only in aggregate form.

In these circumstances, I would be very grateful if you could spare me half an hour of your valuable time to discuss the issues set out on the attached sheet. I have made a provisional timetable for the proposed visit and I wonder if it would be possible for me to visit your company on:

Date: May 19, 1998
Time: 10.30 am

May I ask you to fill in the enclosed form to indicate whether you are prepared to help. A pre-paid envelope is enclosed.

If you would like any further information regarding this request, please do not hesitate to contact me. Thank you.

Many thanks in anticipation of your assistance.

Yours sincerely,

Mohd Noor Mohd Shariff
Researcher
APPENDIX 7.1

INFORMATION ON CASE STUDY FIRMS
Full Information on the Case Study Firms

Firm A

Background of firm and entrepreneur

The firm was incorporated in 1990. It is a private-limited company run by a Chinese entrepreneur. It commenced operations in 1990 and now has a workforce of seventy employees involved in the manufacturing of air bubblepak, expanded polyethylene foam and laminated products. It has an authorised share capital of RM10 million. Its factory is located on a 3.9 acres site owned by the company. It services a major share of the semiconductor, electronic and industrial packaging industries, and takes great pride in producing quality products and services.

Its success is dependent on the abilities and continued efforts of its existing directors/senior management and employees, as well as its ability to attract and retain skilled personnel for grades below management.

NPGS application and security

The firm approached its bank in March 1995 for a NPGS loan. The firm was an existing customer of the bank, with a range of facilities, including an overdraft, a term loan, a multiple trade line (MTL) including a letter of credit (LC), trust receipts (TR), a shipping guarantee (SG), a letter of guarantee (LG) and banker's acceptances (BA's). In support of the NPGS application, the firm had to provide comprehensive information, including a company profile, audited accounts for the period 1990 to 1993, management accounts and projected cash flows for 1994 and 1995, and other internal information. Its bank required these documents to appraise the project and to make a judgement on the associated risk.
Bank A decided to advance funds to the firm under the NPGS, and to charge an interest rate according to NPGS lending guidelines. The security available to Firm A at the time of the NPGS application consisted of property, a debenture over fixed and floating assets, and the joint and several guarantee of the Directors. The bank also established with the borrower that no further security was available.

**Finance additionality**

At the time of application for the NPGS loan, the borrower (Firm A) was asked: 'If your application for the NPGS loan had not been approved, or if NPGS loan had not been available, what alternatives were open to you?' The response was that there were no alternative sources of finance available (i.e., a case of genuine additionality). This was confirmed by Bank A. In answer to the question: 'In the absence of the NPGS do you think the firm could have raised the loan required?', the banker replied that it was unlikely. The bank chose the NPGS loan in this case in order to enhance the overall security position which was insufficient.

The next step was to ask the banker to estimate the amount that the bank would have been able to lend if NPGS support had not been available. The bank responded: ' Compared to the original request of RM1.3 million a lower amount of RM900,000 would have been advanced with the security (excluding CGC guarantee) and terms and conditions remaining more or less the same'. The bank decided to lend RM1.680 million in March 1995. As Table A7.1 indicates, the level of finance additionality was 46 percent.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package (excluding existing bank facilities) from the bank</th>
<th>Bankmax amount</th>
<th>Est.Add amount (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
</tbody>
</table>

Table A7.1. The NPGS: finance additionality (figure: RM thousand)

Notes:
1. Bankmax = an estimate of the maximum available level of bank credit if the NPGS had not existed.
2. Est. Add = the estimated level of finance additionality, after taking into account what the bank could have advanced.
Appendix 7.1

**Firm's performance and economic additionality**

The firm has met all interest and capital payments on the due dates. The NPGS loan was repaid after 2½ years, before the expiration of the guarantee period of 3 years. Its actual performance after receiving the NPGS, compared to its original forecasts, was on track. This stems from having a good and experienced management team, product innovation, marketability of products, quality service, a skilled workforce and operating at optimal production capacity. Two more non-NPGS loans, amounting to RM5.646 million, were approved during 1996. The bank is willing to grant loans to the firm in future, provided that the economic climate improves.

The firm used the NPGS-backed funds for working capital and the purchase of plant and machinery. The firm has grown rapidly in the past few years increasing its product range from basic plastic packaging materials to the manufacture of air bubblepak, expanded polyethylene foam and laminated products. It also demonstrated rapid growth potential, in producing cleanroom environment materials for multinational companies in the semiconductor industry. The firm intends to set up a plant in Sarawak, East Malaysia.

In addition, the firm has increased its workforce by 50 employees since receiving the NPGS loan. Its current annual turnover is RM5.4 million, a figure which is increasing by 6 to 10 percent annually. Its current annual net profit margin before tax is estimated at 20 percent, a figure which is increasing annually by 2 to 3 percentage points. The firm sells 20 percent of its products to Singapore, 40 percent within the state of Perak and the remainder to other customers in Malaysia. The firm has captured 40 percent of increased sales within the state of Perak and 30 percent of increased sales from other competitors in Malaysia.
Appendix 7.1

Firm B

Background of firm and entrepreneur

Firm B, a Bumiputera-owned limited company was incorporated in November 1990, with the intention of supplying marine equipment and hardware to firms in the expanding marine industry in Malaysia. The founder of the firm, Mr. B (an ex Royal Malaysian Navy Officer) also planned that the company would develop the capacity to offer engineering services, to take advantage of the vast opportunities to construct naval vessels for the Ministry of Defence for the expanding Malaysian Navy. The privatisation of the Royal Malaysian Dockyard in Lumut, later renamed the Naval Dockyard Sdn. Bhd (NDSB), was seen as a catalyst for the construction of naval vessels domestically, especially a proposed Offshore Patrol Vessels (OPV) project worth several billion ringgit. In essence, the company had taken the opportunity to position itself early, in an attempt to capture future market share.

In May 1991, the firm began operations with a small workshop in Subang Jaya, producing fabricated items such as battery stands, metal racks and pallets. A contract was awarded to produce various goods in support of new power supply systems for Petronas (Petroleum Nasional Malaysia), Malaysian Telecom and many other major bodies. By acquiring these orders, the company became closely associated with the manufacturing sector.

Several technicians from the Royal Malaysian Navy (ex-servicemen) joined the company and the recruitment of these workers further enhanced the company's reputation for marine engineering. The company was registered as an official contractor/supplier with relevant marine bodies, particularly dockyards, as well as the Ministries of Finance, and International Trade and Industry. Registration with government bodies was vital to penetrate the marine market and to participate in the tendering process.
It was then decided that the firm's workshop/factory should be located closer to the potential marine market. Bandar Baru Seri Manjung in Perak was chosen, in view of its close proximity to the privatised Royal Malaysian Navy Dockyard and the major operational base of the Royal Malaysian Navy in Lumut. In December 1991, the workshop and its facilities in Subang Jaya was moved to new premises in Bandar Baru Seri Manjung. More machinery and equipment was acquired to enhance the engineering capabilities of the firm. A major contract for cable rewiring a support vessel of the Royal Malaysian Navy was awarded to the firm by the NDSB soon after the move. This was the first of a series of major contracts awarded to the firm. The firm subsequently grew in strength, both in terms of manpower and production capabilities.

Fabrication became a core business, supported by marine electrical engineering, insulation and lagging, as well as trading. The company was recognised as one of the major subcontractors of the NDSB, and a key contract to manufacture metal enclosures for switching systems for Telecom Malaysia Berhad was obtained. As the manufacturing volume increased, the workshop and factory in Manjung could no longer accommodate production demands.

With the assistance of Perbadanan Usahawan National Berhad (PUNB), the firm bought a factory in the state of Selangor and started full manufacturing activities in November 1995. More machinery was acquired and production increased.

The marine service arm of the company was upgraded with the recruitment of experienced engineers and technicians. The firm was recognised as one of the prime subcontractors of the NDSB, specialising in electrical repairs for ships, engine monitoring, degaussing, exocet missile cabling and firing systems, insulation and lagging, hull plating, and the fabrication of exhaust trunking systems.
Appendix 7.1

NPGS application and security

The firm approached its bank and received an initial advance of RM650,000 in January 1995. An additional amount of RM2.0 million under the NPGS was made available in early July 1996, to support profitable projects being undertaken by the firm. It had previously maintained an account with the bank in respect of letters of credit (LCs) and project financing. The purpose of seeking the NPGS loan was mainly for working capital and the purchase of fixed assets. The firm had to provide information such as audited accounts, projected cash flows and details of any projects on hand. The firm had no difficulty in getting the NPGS loan, since Permodalan Usahawan Nasional Berhad (PUNB) had an interest in the firm (holding 28.6 percent of the shares) and it also had a mutual understanding with Bank B with regard to the provision of loans and advances. Bank B placed Firm B under a clean facility for the NPGS, because the existing collateral (a debenture covering the fixed and floating assets of the firm, and a guarantee from the directors) was insufficient. Bank B chose the NPGS loan based on the projects to be carried out by Firm B. There was no further security available to support the NPGS loan.

Finance additionality

At the time of the application for the NPGS loan, firm B could have approached other government agencies such as MARA (Majlis Amanah Rakyat), PUNB and Bank Pembangunan Malaysia (Malaysian Development Bank). However, the terms and conditions of the NPGS were not onerous, the processing of the NPGS was simple and the loan was cheaper than bank borrowing. Bank B would have provided a conventional loan at a higher interest rate, as the Bank felt that firm B was a well-managed company with a sound track record.

If the NPGS support had not been available, Bank B would have provided the same amount of RM2.650 million in total. Table A7.2 therefore, indicates that the level of finance additionality was zero.
Table A7.2. The NPGS: finance additionality (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package (excluding existing bank facilities) from the bank</th>
<th>Bankmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>B</td>
<td>0</td>
<td>2,650</td>
<td>2,650</td>
</tr>
</tbody>
</table>

**Firm’s performance and economic additionality**

The firm has met all interest and capital payments on the due dates. With the NPGS loan in place, Firm B was able to take on a bigger contract and increase its workforce. Its actual performance after receiving the NPGS loan was better than the forecast. It is now able to service more customers and is also looking into potential export markets, for example, exporting steel towers for telecommunications. Turnkey projects in the marine market and also the installation of telecommunication infrastructure systems could be tackled in future.

The firm has increased its workforce by 30 employees since receiving the NPGS loan. Its current annual turnover is RM4.3 million, compared to RM2.3 million before the NPGS. Its current net profit before tax is RM140,000, compared to a loss before the NPGS (see Table A7.3 below). The annual value of new business is currently RM450,000. 45 percent within the federal Territory of Kuala Lumpur, 25 percent from the states of Perak and 30 percent elsewhere in Malaysia. It has captured 50 percent of increased sales from its competitors, the remainder is new business.

Table A7.3: Turnover, Profit and Employment

<table>
<thead>
<tr>
<th></th>
<th>Year prior to Loan</th>
<th>Year 1</th>
<th>Year 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover (RM000s)</td>
<td>RM2,300</td>
<td>RM3,900</td>
<td>RM4,300</td>
</tr>
<tr>
<td>Profit (RM000s)</td>
<td>loss</td>
<td>RM50</td>
<td>RM140</td>
</tr>
<tr>
<td>Employment (numbers) *</td>
<td>45</td>
<td>58</td>
<td>75</td>
</tr>
</tbody>
</table>

*including owners and employees-full-time and part-time

Several foreign firms have recognised the strength of Firm B and appointed it as local agent or partner. These foreign firms acknowledge that Firm B can provide local expertise and content, and facilitate the transfer of technology (TOT) programme as required by the
Malaysian Government. Messier Vosper Thornycroft (UK) Ltd, a firm based in the United Kingdom, won a contract to supply steering and stabiliser systems, and a platform management system, for the Offshore Patrol Vessel (OPV) programme undertaken by the Malaysian Government. Firm B was appointed agent by Messier Vosper Thornycroft in January 1995.

**Firm C**

Firm C is owned by a Bumiputera proprietor and was established in 1992. The OM operates an optometry centre in Ipoh, the only Bumiputera outlet among the Chinese dominated optometry sector in that state. The OM has expanded his business and now has two outlets in Perak. Before starting his own venture, he worked in another optometry shop in Ipoh for 6 years. He has a degree in optometry.

**NPGS application and security**

The OM established the business through his personal savings and funds from relations. He had previously requested a RM10,000 loan from various financial institutions but his application was rejected. His business eventually began to expand and he needed more working capital and capital equipment. In July 1994, he approached his bank (Bank C) and applied for a RM30,000 loan. His application was successful, granted under the Block Guarantee Scheme of the NPGS. He was also given a RM70,000 loan by a Government agency (MARA) to purchase optometry equipment.

In August 1995, the OM applied for a loan from another bank (Bank Z) for business expansion. He had to provide financial statements for 1993 and 1994, a business plan to cover the expansion, bank statements and a summary of other funds received. On the basis of this information, Bank Z granted a loan for RM100,000 under the clean facility of the NPGS.
Finance additionality

If the NPGS loans had not been available, the OM felt that he would not have been able to borrow from financial institutions. However, Bank C stated that it would have granted a non-NPGS loan to Firm C at a higher interest rate. The RM70,000 loan that Firm C received from MARA was part of a Government effort to help Bumiputera SMEs to acquire fixed assets. The interest rate was subsidised and was much cheaper than conventional loan rates.

The next step was to ask Banks C and Z to estimate the amount that they would have been able to lend if the NPGS had not been available. Bank C stated that it might have granted a non-NPGS loan to Firm C at a higher interest rate. This would imply zero additionality but the precise figure was difficult to establish. Bank Z would have advanced RM87,000, compared to the original request of RM100,000. Table A7.3 below indicates, the level of finance additionality for both banks:

Table A7.3. The NPGS: finance additionality (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from all financial institutions</th>
<th>Financial institutions and others maxamt</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Other financial institutions</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>C</td>
<td>MARA 70</td>
<td>30</td>
<td>100</td>
</tr>
<tr>
<td>C</td>
<td>0</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

Notes:
1. Firm C had sought NPGS from two financial institutions.
2. Financial institutions and others including government bodies = an estimate of the maximum available of credit for financial institutions, if the NPGS had not existed.
3. Est. Add = the estimated level of finance additionality, after taking into account what the financial institutions and others could have advanced.
**Firm's performance and economic additionality**

The OM has met all interest and capital payments on the due dates. With the NPGS loans, the OM has been able to expand his business from one to three outlets. He has increased his stockholding, and purchased equipment for his new outlets. Table A.7.4. showed an increased in turnover over the period from 1993-96.

<table>
<thead>
<tr>
<th>Year</th>
<th>Turnover</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>RM260,000</td>
</tr>
<tr>
<td>1994</td>
<td>RM412,000</td>
</tr>
<tr>
<td>1995</td>
<td>RM656,000</td>
</tr>
<tr>
<td>1996</td>
<td>RM708,000</td>
</tr>
</tbody>
</table>

There were six employees at the time the OM applied for the NPGS loan. Today the number has increased by 10 employees. Net profit before tax has increased by more than 20 percent, and the business has captured 40 percent of increased sales from its competitors. The OM has been successful in attracting Bumiputera customers, as the only Bumiputera-owned optometry shop in Ipoh. With sophisticated eye-testing equipment and an effective advertising campaign, the OM should continue to attract more customers in the future.

**Firm D**

**Background of firm and entrepreneur**

The firm was incorporated in 1983. It is a private-limited company run by an Indian OM. He is 50 years old, has Malaysian Certificate of Education (M.C.E.), and more than 16 years of experience in the travel and tourism business. The firm arranges travel packages for customers intending to visit the Indian sub-continent and South East Asia. The firm is located in the heartland of Kuala Lumpur City.
Appendix 7.1

NPGS application and security

The firm approached Finance Berhad in January 1996 for a NPGS loan. At that time, the firm was a new customer of the finance company. The firm had to provide its Memorandum of Association, three years audited financial statements, bank statements for the past 6 months, and lists of trade debtors and creditors. Finance Berhad considered these documents sufficient to appraise the project and assess its associated risk. Finance Berhad also checked the alternative sources and types of finance available to Firm D. The finance company decided to sanction a NPGS loan of RM250,000 and charge interest at 16.7 percent (this was much higher than the interest charged by commercial banks). The security provided in support of the NPGS loan was RM50,000 fixed deposits.

Finance additionality

Firm D would have been able to raise a smaller sum from the same source. This statement was confirmed by Finance Berhad; it would have been willing to lend twice the security (fixed deposit) held, i.e. a lower amount of RM100,000; see Table A7.5.

Table A7.5. The NPGS: finance additionality (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from Finance Co.</th>
<th>Finance Co max. amount¹</th>
<th>Est. Add² amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Finance Berhad</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>D</td>
<td>0</td>
<td>250</td>
<td>250</td>
</tr>
</tbody>
</table>

Notes:
1. Finance Co. max. amount = an estimate of the maximum available level of finance company credit, if the NPGS had not existed.
2. Est. Add = the estimated level of finance additionality, after taking into account what the finance company could have advanced.

Firm's performance and economic additionality

Firm D has met all interest and capital payments on the due dates, and operated within borrowing limits. The impact of the NPGS was incremental, as turnover increased by 5
percent in 1996 from RM3.5 million in 1995. This performance was 'acceptable' to Bank D, as Firm D was part of IATA (International Association of Travel Agencies) and able to exploit a corporate market niche by organising tours for corporations. Payment to Firm D is on short credit terms or cash, so debt collection is never a problem.

Firm E

Background of firm and entrepreneur

The firm was formerly a sole-proprietorship but in 1981 it switched to private limited company status. The OM is Chinese, with a High School education. Firm E is involved in the making of furniture (stools and chairs) for export. The firm is situated near Tanjong Malim in Perak. The OM has more than 10 years' experience in furniture manufacture.

NPGS application and security

The firm approached Bank E in June 1997 for a NPGS loan of RM1.4 million. The limited company was a new customer to the bank, but the OM had been dealing with the bank in a personal capacity for more than 10 years. The OM had many years of business experience in furniture making, a good track record and had been dealing with the bank since the early 1970s. The firm had to provide information on purchaser/supplier terms of credit, as well as financial accounts. The bank placed Firm E under the auspices of the NPGS, because the security provided was not sufficient to cover the loan. The clean portion of the loan was 80 percent guaranteed by CGC, amounting to RM800,000 (i.e., 80 percent of RM1 million). This is the top up portion of the NPGS loans guaranteed by CGC. The security provided by Firm E comprised a Fixed Deposit of RM300,000 and a semi-detached house of RM130,000. This amount of collateral was not adequate to cover the full amount of the NPGS loan. In the case of default, the collateral proceeds would be shared between Bank E and CGC in the ratio of 10 to 90.
Finance additionality

Firm E could have raised a lower amount than that requested. Bank E confirmed that a lower limit would have been granted. The bank chose the NPGS for Firm E in order to enhance the overall security position. Compared to the original request of RM1.4 million, a lower amount of RM600,000 would have been advanced by Bank E, with the security (excluding NPGS guarantee) and terms and conditions remaining more or less the same. As table A7.6 below indicates, the level of finance additionality was, therefore, 57 percent.

Table A7.6. The NPGS: finance additionality (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>Bank NPGS Loan Total</td>
<td>1,400</td>
<td>600</td>
</tr>
<tr>
<td></td>
<td></td>
<td>800 (57)</td>
<td></td>
</tr>
</tbody>
</table>

Firm's performance and economic additionality

The firm has met all interest and capital payments on the due dates and the account has been very active. The impact of the NPGS funding has been tremendous, with an average deposit of RM300,000 per month into the account. In 1996, turnover was RM2.3 million; by 1997 the turnover had risen to RM5.7 million. Its pre-tax profit margin has increased from 15 to 20 percent. The firm was also exporting more, despite the depreciation in value of the Malaysian Ringgit. The firm has increased the number of employees from 20 to 40 full-time workers. The firm has captured 80 percent of increased sales from overseas and the remainder from other firms in Malaysia. Since receipt of the NPGS, all new business has come from exports.
Appendix 7.1

Firm F

Background of firm and entrepreneur

This private limited company run by a Bumiputera businessman was incorporated in 1988. It is involved in the manufacture of Switch Gears under the Vendor Programme for Tenaga Nasional Berhad (the Malaysian National Power Corporation). It is located about 13 miles from Kuala Lumpur. Firm F was also given a licence from Siemen Hendof of Germany to manufacture its products in Malaysia.

NPGS application and security

Firm F approached Bank F in June 1997 for a NPGS loan of RM2.5 million, as a new customer. Firm F had to provide financial statements, and details of managerial experience, past track record and various projects carried out during the year. A major factor in favour of the application was that Firm F operated under the Tenaga Nasional Vendor Programme. In addition, Firm F was a manufacturing company with good export potential. However, Bank F suggested a NPGS facility. The security provided by Firm F consisted of Fixed Deposits of RM250,000 and Directors' Guarantees. The bank ascertained that there was no further security available.

Finance additionality

Firm F stated that there were alternative sources of finance available, with a delay. Bank F confirmed it was unlikely that Firm F could have raised the loan required because, following strict credit decision criteria, its past track record was not good enough. The bank would refuse to assist, even though the firm had a strong management team supported by experienced and qualified personnel and were thought to be 'honest, hardworking businessmen'.
If NPGS support had not been available, the bank would have been willing to lend RM1.25 million as opposed to RM2.5 million requested. As Table A7.7 below indicates, the level of finance additionality was 50 percent.

Table A7.7. The NPGS: finance additionality (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
<td>2,500</td>
<td>1,250</td>
</tr>
</tbody>
</table>

Firm’s performance and economic additionality

The conduct of firm’s account has been satisfactory. The impact of the NPGS loan on the firm’s performance has definitely been positive. The NPGS enabled the firm to invest in working capital, and to increase turnover from RM2.5 million by more than 20 percent. Profit before tax has increased from 10 to 20 percent. The workforce has increased from 45 to 55 employees. Since receipt of the NPGS loan, 80 percent of its new business has come from within the state of Selangor and 20 percent from elsewhere in Malaysia. The firm intends to export in future.

Firm G

Background of firm and entrepreneur

The firm is owned by a Bumiputera proprietor in Alor Setar, Kedah. The firm was established in 1990 and provides computer services in hardware and software development, as well as consultancy and training support. The proprietor is 35 years old and has a Degree in Computing. He has 6 years experience in this business sector.
Appendix 7.1

**NPGS application and security**

The OM had to finance the early stages of the business from personal savings and loans from relatives. In 1997, he decided to expand his business and applied for a NPGS loan. His banker suggested that he utilise a NPGS loan since he had a security (land) worth RM120,000 and the business was viable. He received an NPGS loan of RM67,000. The bank requested profit and loss forecasts and details of collateral.

**Finance additinality**

The borrower stated that he would have been able to borrow from alternative sources, without a delay. This was confirmed by his banker. Bank G would have been willing to lend RM67,000 because the loan was covered by the collateral. Table A7.8 below indicates, the level of finance additinality:

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>G</td>
<td>0</td>
<td>67</td>
<td>67</td>
</tr>
</tbody>
</table>

**Firm’s performance and economic additinality**

Firm G has met all interest and payments on the due dates. The impact of the NPGS loan on the development of the business has been positive, as shown by his active account. Payments to his suppliers were made in cash, his customers were given 3 months credit terms and therefore sales increased. Furthermore, the borrower was able to secure a Government contract to supply computers, because the firm was now backed by the CGC guarantee. Since receiving the NPGS loan, the firm’s current annual turnover has risen to
RM2 million, an increase of more than 20 percent on the previous year. Its pre-tax profit margin has increased from 5 to 10 percent. The level of employment has increased from 5 to 10 employees. Since receipt of the NPGS loan, 80 percent of its new business has come from within the state of Kedah and 20 percent from elsewhere in Malaysia. The firm has captured 20 percent of increased sales within the state of Kedah.

Firm H

Background of firm and entrepreneur

The firm is owned by a Bumiputera proprietor in Kangar, Perlis. Established in 1994, the firm is a small scale construction business. The OM is 52 years old and has a Lower Certificate of Education (L.C.E.). He has more than 12 years of experience in the construction business, having formerly been an army officer.

NPGS application and security

Firm H received a loan of RM10,000 under the clean facility of the old PGS in 1992. In 1997, Firm H decided to apply under the NPGS to finance additional working capital and the purchase of new machinery. He had to provide information such as financial statements and a business proposal. He had to offer his 'Amanah Saham Bumiputera' mutual share of RM20,000 as collateral. Bank H then granted him a loan of RM130,000 under the clean facility of the NPGS.

Finance additionality

Firm H stated that it would have been able to borrow the same amount from the same bank without delay. Bank H, however, insisted that they would only have granted a loan with a shorter period of payment or a reduced amount of RM100,000. Bank H stated that.
the risk was high in the construction business. Table A7.9 indicates the level of finance additionality.

Table A7.9. The NPGS: finance additionality (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>H</td>
<td>0</td>
<td>130</td>
<td>130</td>
</tr>
</tbody>
</table>

Firm’s performance and economic additionality

Interest and capital payments are on schedule. Firm H used the NPGS loan to increase its working capital. In fact, actual business performance was ahead of forecast performance. Turnover increased by 10 percent and the net profit margin before tax increased by 5 percent. The main factor behind this growth was a strong demand for property during the boom period of the economy (1992 - 1996).

**Firm I**

**Background of firm and entrepreneur**

Firm I is owned by a Chinese proprietor and established in 1985. The OM operates a wholesale shop in Penang. He is 50 years old, has an M.C.E., and more 9 years experience in the wholesaling business.

**NPGS application and security**

Firm I approached Bank I in 1996 requesting a loan of RM500,000 for working capital. Firm I had to provide financial statements and faced a tough interview with the bank. The outcome was that Firm I was required to provide security, consisting of an apartment with a market value of RM120,000 and fixed deposit of RM100,000. Bank I sanctioned the request under the clean facility of the NPGS and CGC guaranteed RM350,000 (70
percent of the loan amount, i.e. 70 percent of RM500,000). The remainder was
guaranteed by Bank I. The security is required to cover losses in the event of default. If
the firm defaults (assuming RM350,000 is in default), the following would occur:

<table>
<thead>
<tr>
<th></th>
<th>Lender</th>
<th>CGC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Claims paid by CGC</td>
<td>350,000</td>
<td>(350,000)</td>
</tr>
<tr>
<td>Recoveries *(20:80)</td>
<td>44,000</td>
<td>176,000</td>
</tr>
<tr>
<td>Loss/Shortfall</td>
<td>306,000</td>
<td>174,000</td>
</tr>
</tbody>
</table>

*Assuming the security is disposed for RM220,000 (market value)*

**Finance additionality**

Firm I stated that it **could have raised a smaller sum from the same source**. Bank I confirmed that it would only have been willing to lend RM100,000 without the CGC guarantee. The exposure of RM300,000 would have been too high for an unsecured, clean facility. Table A7.10 indicates the level of finance additionality.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est.Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>0</td>
<td>500</td>
<td>100</td>
</tr>
</tbody>
</table>

| Firm's performance and economic additionality |

The NPGS loan has enabled the firm to support a 20 percent increase in annual turnover. Its annual net profit margin has remained at a modest 2 percent, while the level of employment increased from 6 to 9 employees. Firm I has captured 30 percent of increased sales from its competitors. Nearly 40 percent of new business has come from within the state of Penang and 60 percent from elsewhere in Malaysia.
Firm J

Background of firm and entrepreneur

Firm J is a private limited company owned by a Bumiputra proprietor in Seremban, Negeri Sembilan. Firm J was established in 1994 and is involved in the making of furniture for Guthrie Berhad under Vendor Programme. The OM is 39 years old, with a Higher School Certificate and more than 3 years experience in the furniture business. He was formerly a banker and did not have an experience in technical matters. He underwent technical training from Petronas Training Centre and attended EMT organised by chambers of commerce.

NPGS application and security

The firm approached Finance Company J, as a new customer, for a NPGS loan in late 1995. Firm J had to provide a Letter of Recommendation from Guthrie Berhad, details of existing raw materials and machinery, a business plan and financial forecasts. Firm J requested a RM270,000 loan for working capital and the purchase of new machinery. Finance Company J granted RM100,000 for working capital under the NPGS (part of the finance package of RM270,000) and RM170,000 for machinery under its own commercial loan scheme. Firm J was only required to provide a Director's guarantee because it operated under a Vendor Programme and sales to Guthrie were assured.

Finance additionality

Without the NPGS, Firm J would have been able to raise a smaller sum from the same source. Finance Company J confirmed that Firm J could only have raised the amount of RM170,000 for the machinery and that it would not have been willing to lend RM100,000 for working capital, despite the existence of the Vendor Programme. The
machinery acted as collateral for the RM170,000 loan. Table A7.11 indicates the level of finance additionality.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from Finance Co. J</th>
<th>Finmax amount</th>
<th>Est.Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Finance Co. NPGS Loan Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>170 100 270</td>
<td>170</td>
<td>170 (6.3)</td>
</tr>
</tbody>
</table>

**Firm's performance and economic additionality**

The loan was disbursed on May 1996. However, the firm has not been able to maintain interest and capital payments to Finance Company J. The loan was categorised as Non Performing in June 1997. Firm J had not received orders under the Vendor Programme since January 1998, and Finance Company J resorted to loan recovery on April 1998. Owing to the cancellation of the contract between Firm J and the Guthrie, Firm J was unable to pay the loan to Finance Company J.

**Firm K**

**Background of firm and entrepreneur**

Firm K is private limited company owned by a Chinese entrepreneur in Klang, Selangor. The firm was established in 1989 and is involved in the timber trading business. The OM is 49 years old and has the M.C.E. He has more than 16 years experience in the timber trading business.

**NPGS application and security**

The OM had to finance the business from personal savings in the early stages of the firm's life. He had to use his relations as a referee after failing to get an NPGS loan from other finance companies. His relations introduced the OM to Finance Company K which
Appendix 7.1

granted him RM240,000 of the NPGS loans. The OM had to provide security consisting of 3 houses valued at RM300,000.

**Finance additionality**

Firm K would have been able to raise a smaller sum from the same source. Finance Company K stated that it would only have been willing to advance RM100,000 to firm K, taking into account the security (property) available. Table A7.12 indicates the level of finance additionality.

**Table A7.12. The NPGS: finance additionality (figure: RM thousand)**

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from Finance Co. J</th>
<th>Finmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Finance Co.</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>K</td>
<td>0</td>
<td>240</td>
<td>240</td>
</tr>
</tbody>
</table>

**Firm's performance and economic additionality**

Firm K has met all interest and capital payments on the due dates. The interest charged is 14 percent (Base Lending Rate of 11 percent plus 3 percent). Firm K turnover has almost doubled, from RM2.5 million to RM5 million annually. Its net profit margin before tax has increased by 5 percent. The level of employment has increased from 15 to 30 employees. Since receipt of the NPGS loan, 30 percent of its new business has come from within the State of Selangor and 70 percent from export business. The firm has captured 15 percent of increased sales from the State of Selangor and 50 percent from overseas firms.
Firm L

**Background of firm and entrepreneur**

Firm L is a partnership, a father and son, situated in the State of Kedah. Firm L was established in 1988 and is involved in the making of soya sauce. The manager (and my interviewee) is the son aged 39 years old, with the M.C.E and more than 12 years experience in the business.

**NPGS application and security**

Firm L approached Bank L in early 1997 for a NPGS loan of RM180,000. The firm was an existing customer of the bank. Firm L was granted the loan for working capital and the purchase of machinery. The firm had to provide property worth RM120,000 as security for the loan.

**Finance additionality**

Without the NPGS, Firm L would have been able to raise a smaller sum from the same source. Bank L confirmed that they would have been willing to offer Firm L a lower limit of RM110,000, as the security of RM120,000 could not cover the amount of RM180,000 requested. Table A7.13 indicates the level of finance additionality

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est. Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
</tbody>
</table>

Table A7.13. The NPGS: finance additionality (figure: RM thousand)
Appendix 7.1

**Firm's performance and economic additionality**

Interest and capital payments are on schedule. The impact of the NPGS is difficult to gauge at this stage. The firm was unable to generate turnover and profit in the year after the loan was granted, because an auto-filling tanker purchased using the NPGS loan broke down and it had to be repaired. However, Firm L’s annual net profit margin before tax has remained at 8 percent, while the level of employment has increased from 33 to 39 employees. Nearly 70 percent of new business has come from within the state of Kedah and 30 percent from elsewhere in Malaysia.

**Firm M**

**Background of firm and entrepreneur**

Firm M is owned by a Chinese proprietor in Teluk Intan, Perak. Established in 1973, the firm is involved in selling traditional Chinese medicines and drugs. The OM is 60 years old, with a Lower Certificate of Education (L.C.E.) and more than 16 years experience in the pharmaceutical business.

**NPGS application and security**

Firm M received a loan of RM80,000 under the NPGS in 1997, to finance additional working capital. He had to provide financial and bank statements in support of the application. The security provided was RM40,000 fixed deposits.

**Finance additionality**

Firm M would have been able to *raise a smaller sum from the same source*. Bank M would have been willing to lend RM40,000 without the NPGS support, the amount of the available collateral. Table A7.14 indicates the level of finance additionality.
Table A7.14. The NPGS: finance additiveness (figure: RM thousand)

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount (1)</th>
<th>Est.Add (2) amount (G)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank NPGS Loan Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>40 40 80 40 40 (50)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Firm’s performance and economic additiveness**

Firm M has since met all interest and capital payments promptly. The impact of the NPGS loan on the development of the business has been modest. Current annual turnover has risen from RM800,000 to RM840,000, an increase of around 5 percent, and the pre-tax profit margin has increased from 10 to 20 percent. The level of employment has remained stable. Since receipt of the NPGS, all new business has come within the state. The firm has captured 20 percent of increased sales from other competitors in the state of Perak.

**Firm N**

The firm is a stationery supplier owned by a Chinese proprietor in Ipoh, Perak. Since her husband died, she has taken control of the management of the shop. She is 49 years old, has the M.C.E., and 6 years experience in this line of business.

**NPGS application and security**

Firm N approached Bank N in 1996 requesting a loan of RM212,000 for working capital. Firm N had to supply financial and bank statements. The OM had to provide security consisting of property value at RM170,000.
Finance additionality

Firm N would have been able to raise a smaller sum from the same source. Bank N stated that it would have been willing to advance RM138,000 to firm N, taking into account the security available. Table A7.15 indicates the level of finance additionality.

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount (1)</th>
<th>Est.Add (2) amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Bank 138</td>
<td>NPGS Loan 74</td>
<td>Total 212</td>
</tr>
</tbody>
</table>

Firm's performance and economic additionality

Interest and capital payments are on schedule. Business performance is in line with forecasts. Current annual turnover has risen to RM60,000, an increase of more than 5 percent, and the pre-tax profit margin has increased from 10 to 20 percent. The firm has increased its number of employees from 5 to 9 full-time workers. Since receipt of the NPGS loan, 90 percent of its new business has come from within the state of Perak and 10 percent from elsewhere in Malaysia.

Firm O

The firm was incorporated in 1992. It is a private-limited company run by 29 years old Chinese OM, who has the M.C.E. and more than 7 years experience in aquaculture farming. He also has a licence to rear crocodiles.

NPGS application and security

Firm O sought NPGS finance of RM250,000 for working capital and the purchase of plant and machinery. Firm O had to supply financial statements and a detailed business
proposal. Fixed Deposits of RM100,000 were available as collateral and Bank O ascertained that there was no further security available.

**Finance additionality**

Firm O stated that it would have been able to borrow the same amount from the same bank without delay. Bank O, however, insisted that it would only have granted a reduced amount of RM165,000, given the available security and the fact that the aquaculture business was in its infancy. Table A7.16 indicates the level of finance additionality.

**Table A7.16. The NPGS: finance additionality (figure: RM thousand)**

<table>
<thead>
<tr>
<th>Firm</th>
<th>Funding package from the bank</th>
<th>Bankmax amount</th>
<th>Est.Add amount (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Bank</td>
<td>NPGS Loan</td>
<td>Total</td>
</tr>
<tr>
<td>O</td>
<td>165</td>
<td>85</td>
<td>250</td>
</tr>
</tbody>
</table>

**Firm's performance and economic additionality**

Firm O has met all interest and capital payments on the due dates. The impact of the NPGS loan on the development of the business has been modest. Profit before tax increased from 20 to 30 percent, and annual turnover rose from RM100,000 to RM105,000. The workforce has increased from 5 to 10 employees. Since receipt of the NPGS loan, 40 percent of its new business has come from within the state of Selangor, 30 percent from elsewhere in Malaysia, and 30 percent from overseas exports. The firm has captured 70 percent of increased sales within the state of Selangor and 30 percent of increased sales from other competitors in Malaysia.

---

1 The actual names of the firms and the OMs have not been used to preserve business confidentiality. The case studies have been developed to illustrate finance and economic additionality, a particular concern of this study.
APPENDIX 7.2

FINANCE ADDITIONALITY FROM QUESTIONNAIRES
### Aggregate Figure on Finance Additionality for Questionnaire Survey

<table>
<thead>
<tr>
<th>Firms</th>
<th>Funding Package from FLs and Others</th>
<th>FIs and others</th>
<th>Estimated Additionality</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RM</td>
<td>RM</td>
<td>RM</td>
</tr>
<tr>
<td>1</td>
<td>0</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>2</td>
<td>150,000</td>
<td>250,000</td>
<td>400,000</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>165,000</td>
<td>165,000</td>
</tr>
<tr>
<td>4</td>
<td>50,000</td>
<td>350,000</td>
<td>400,000</td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>150,000</td>
<td>150,000</td>
</tr>
<tr>
<td>6</td>
<td>70,000</td>
<td>130,000</td>
<td>200,000</td>
</tr>
<tr>
<td>7</td>
<td>100,000</td>
<td>200,000</td>
<td>300,000</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>3,500,000</td>
<td>3,500,000</td>
</tr>
<tr>
<td>9</td>
<td>0</td>
<td>200,000</td>
<td>200,000</td>
</tr>
<tr>
<td>10</td>
<td>3,160,000</td>
<td>2,500,000</td>
<td>5,660,000</td>
</tr>
<tr>
<td>11</td>
<td>0</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>12</td>
<td>0</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>13</td>
<td>20,000</td>
<td>200,000</td>
<td>220,000</td>
</tr>
<tr>
<td>14</td>
<td>0</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>15</td>
<td>0</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>16</td>
<td>50,000</td>
<td>55,000</td>
<td>105,000</td>
</tr>
<tr>
<td>17</td>
<td>0</td>
<td>400,000</td>
<td>400,000</td>
</tr>
<tr>
<td>18</td>
<td>1,400,000</td>
<td>122,000</td>
<td>1,522,000</td>
</tr>
<tr>
<td>19</td>
<td>0</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>20</td>
<td>200,000</td>
<td>700,000</td>
<td>900,000</td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>2,950,000</td>
<td>2,950,000</td>
</tr>
<tr>
<td>22</td>
<td>0</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>23</td>
<td>0</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>24</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>25</td>
<td>0</td>
<td>1,950,000</td>
<td>1,950,000</td>
</tr>
<tr>
<td>26</td>
<td>210,000</td>
<td>384,000</td>
<td>594,000</td>
</tr>
<tr>
<td>27</td>
<td>0</td>
<td>600,000</td>
<td>600,000</td>
</tr>
<tr>
<td>28</td>
<td>400,000</td>
<td>450,000</td>
<td>850,000</td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>80,000</td>
<td>80,000</td>
</tr>
<tr>
<td>30</td>
<td>150,000</td>
<td>200,000</td>
<td>350,000</td>
</tr>
<tr>
<td>31</td>
<td>60,000</td>
<td>150,000</td>
<td>210,000</td>
</tr>
<tr>
<td>32</td>
<td>650,000</td>
<td>2,000,000</td>
<td>2,650,000</td>
</tr>
<tr>
<td>33</td>
<td>0</td>
<td>1,050,000</td>
<td>1,050,000</td>
</tr>
<tr>
<td>34</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>35</td>
<td>80,000</td>
<td>200,000</td>
<td>280,000</td>
</tr>
<tr>
<td>36</td>
<td>0</td>
<td>70,000</td>
<td>70,000</td>
</tr>
<tr>
<td>37</td>
<td>60,000</td>
<td>350,000</td>
<td>410,000</td>
</tr>
<tr>
<td>38</td>
<td>0</td>
<td>150,000</td>
<td>150,000</td>
</tr>
<tr>
<td>39</td>
<td>0</td>
<td>120,000</td>
<td>120,000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>40</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>41</td>
<td>0</td>
<td>650,000</td>
<td>650,000</td>
</tr>
<tr>
<td>42</td>
<td>0</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>43</td>
<td>0</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>44</td>
<td>600,000</td>
<td>500,000</td>
<td>1,100,000</td>
</tr>
<tr>
<td>45</td>
<td>775,000</td>
<td>1,400,000</td>
<td>2,175,000</td>
</tr>
<tr>
<td>46</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>47</td>
<td>0</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>48</td>
<td>0</td>
<td>150,000</td>
<td>150,000</td>
</tr>
<tr>
<td>49</td>
<td>0</td>
<td>700,000</td>
<td>700,000</td>
</tr>
<tr>
<td>50</td>
<td>0</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>51</td>
<td>200,000</td>
<td>1,200,000</td>
<td>1,400,000</td>
</tr>
<tr>
<td>52</td>
<td>0</td>
<td>130,000</td>
<td>130,000</td>
</tr>
<tr>
<td>53</td>
<td>0</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>54</td>
<td>0</td>
<td>1,970,000</td>
<td>1,970,000</td>
</tr>
<tr>
<td>55</td>
<td>0</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>56</td>
<td>0</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>57</td>
<td>0</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>58</td>
<td>0</td>
<td>140,000</td>
<td>140,000</td>
</tr>
<tr>
<td>59</td>
<td>0</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>60</td>
<td>3,950,000</td>
<td>1,200,000</td>
<td>5,150,000</td>
</tr>
<tr>
<td>61</td>
<td>0</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td>62</td>
<td>20,000</td>
<td>60,000</td>
<td>80,000</td>
</tr>
<tr>
<td>63</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>64</td>
<td>0</td>
<td>20,000</td>
<td>20,000</td>
</tr>
<tr>
<td>65</td>
<td>0</td>
<td>463,360</td>
<td>463,360</td>
</tr>
<tr>
<td>66</td>
<td>50,000</td>
<td>200,000</td>
<td>250,000</td>
</tr>
<tr>
<td>67</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>68</td>
<td>0</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>69</td>
<td>0</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>70</td>
<td>0</td>
<td>5,000,000</td>
<td>5,000,000</td>
</tr>
<tr>
<td>71</td>
<td>150,000</td>
<td>160,000</td>
<td>310,000</td>
</tr>
<tr>
<td>72</td>
<td>100,000</td>
<td>50,000</td>
<td>150,000</td>
</tr>
<tr>
<td>73</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
</tr>
<tr>
<td>74</td>
<td>0</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>75</td>
<td>0</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>76</td>
<td>0</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>77</td>
<td>200,000</td>
<td>500,000</td>
<td>700,000</td>
</tr>
<tr>
<td>78</td>
<td>50,000</td>
<td>450,000</td>
<td>500,000</td>
</tr>
<tr>
<td>79</td>
<td>100,000</td>
<td>200,000</td>
<td>300,000</td>
</tr>
<tr>
<td>80</td>
<td>0</td>
<td>800,000</td>
<td>800,000</td>
</tr>
<tr>
<td>81</td>
<td>0</td>
<td>300,000</td>
<td>300,000</td>
</tr>
<tr>
<td>82</td>
<td>0</td>
<td>130,000</td>
<td>130,000</td>
</tr>
</tbody>
</table>
Appendix 7.2

<table>
<thead>
<tr>
<th></th>
<th>0</th>
<th>60,000</th>
<th>60,000</th>
<th>0</th>
<th>60,000</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>83</td>
<td></td>
<td>50,000</td>
<td>150,000</td>
<td>200,000</td>
<td>50,000</td>
<td>150,000</td>
</tr>
<tr>
<td>84</td>
<td>0</td>
<td>200,000</td>
<td>200,000</td>
<td>200,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>85</td>
<td>0</td>
<td>200,000</td>
<td>200,000</td>
<td>0</td>
<td>200,000</td>
<td>100</td>
</tr>
<tr>
<td>86</td>
<td>0</td>
<td>500,000</td>
<td>500,000</td>
<td>0</td>
<td>500,000</td>
<td>100</td>
</tr>
<tr>
<td>87</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
<td>0</td>
<td>100,000</td>
<td>100</td>
</tr>
<tr>
<td>88</td>
<td>0</td>
<td>750,000</td>
<td>750,000</td>
<td>0</td>
<td>750,000</td>
<td>100</td>
</tr>
<tr>
<td>89</td>
<td>0</td>
<td>650,000</td>
<td>650,000</td>
<td>650,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>90</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
<td>0</td>
<td>100,000</td>
<td>100</td>
</tr>
<tr>
<td>91</td>
<td>0</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>92</td>
<td>0</td>
<td>500,000</td>
<td>100,000</td>
<td>100,000</td>
<td>100,000</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>13,055,000</td>
<td>46,276,360</td>
<td>59,331,360</td>
<td>27,080,000</td>
<td>32,251,360</td>
<td>54</td>
</tr>
</tbody>
</table>

Notes
1. The top 92 rows show the calculations for 92 firms respond to the questionnaire
2. Financial institutions and others including government bodies = an estimate of the maximum amount available of credit for financial institutions and others, if the NPGS had not existed.
3. Est. Add. = the estimate level of finance additionality, after taking into account what financial institutions and others could have advanced.

The 100 Percent Finance Additionality Cases

In 35 of the cases, the firms stated that they could not have raised the finance elsewhere, the NPGS finance was 100 percent additional. 18 firms had no assets available to use as security. 17 firms stated that they could have approach equity providers, but they were simply not prepared to consider this option because of a fear of loss of control and the unacceptably low valuations imposed by fund managers.
APPENDIX 7.3

MAJOR PROJECTS UNDERTAKEN
### MAJOR PROJECTS UNDERTAKEN

<table>
<thead>
<tr>
<th>NO</th>
<th>COMPANY NAME*</th>
<th>PROJECTS</th>
<th>YEAR</th>
<th>PROJECT VALUE (RM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>B Engineering Sdn. Bhd.</td>
<td>Manufacture &amp; install Cable Ladder &amp; Accessories for Ten Telekom Project</td>
<td>1st Half 95</td>
<td>126,049</td>
</tr>
<tr>
<td>2</td>
<td>Naval Dockyard Sdn. Bhd</td>
<td>Lagging &amp; Insulation work &amp; manufacture new Exhaust Arrangement for Main Engines, Plating work at various locations &amp; acc. works, cabling &amp; rewiring works on Missile Firing Cables, Main Engine Cables &amp; Degaussing System on Navy ship</td>
<td>1st Half 95</td>
<td>352,835</td>
</tr>
<tr>
<td>3</td>
<td>Naval Dockyard Sdn. Bhd</td>
<td>Renew plating &amp; piping works on various locations, cabling &amp; rewiring works in Main Engines &amp; Missile Firing Cables &amp; lagging work on Port &amp; STBD Main Engine Exhaust Trunking on 3 naval vessels</td>
<td>1st Half 95</td>
<td>205,008</td>
</tr>
<tr>
<td>4</td>
<td>JNP Tenaga Sdn.Bhd.</td>
<td>Manufacture 19&quot; Rack c/w components and accessories</td>
<td>1st Half 95</td>
<td>166,387</td>
</tr>
<tr>
<td>5</td>
<td>Naval Dockyard Sdn Bhd</td>
<td>Manufacture Mobile Sheed c/w Rubber Metal Wheels &amp; Supply workers overall and insulation cloth</td>
<td>1st Half 95</td>
<td>134,104</td>
</tr>
<tr>
<td>6</td>
<td>JNP Tenaga Sdn. Bhd.</td>
<td>Manufacture 19&quot; Rack c/w accessories and Battery Stand for SMR Project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Comtel (M) Sdn. Bhd.</td>
<td>Manufacture Radio Consoles &amp; Telecommunication Tower for RMN Naval Base Sabah</td>
<td>1st Qtr 96</td>
<td>200,000</td>
</tr>
<tr>
<td>9</td>
<td>Projak Engineering Sdn Bhd.</td>
<td>To design, manufacture &amp; supply of Cable Ladder and accessories to various site at southern region of Peninsular Malaysia</td>
<td>Nov 97</td>
<td>212,400</td>
</tr>
</tbody>
</table>

**Note:**
The actual names of the firms have not been used to preserve business confidentiality.