UNIVERSITI PUTRA MALAYSIA

EFFICIENCY EVALUATION OF CREDIT GUARANTEE CORPORATION (MALAYSIA) BERHAD, 1974-1999

ONG HWAY BOON

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By

ONG HWAY BOON

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Chairman : Associate Professor Dr. Muzafar Shah Habibullah

Faculty : Economics and Management

This study is conducted to evaluate the efficiency of CGC in providing guarantee coverage and direct lending to SMEs. The efficiency evaluation of CGC is conducted in three stages. First, it is conducted for single output where technical and scale efficiency evaluation are carried out for guarantees issued for each type of loans categorised under general business, manufacturing and agriculture sectors. Second, two outputs efficiency evaluation is executed for guaranteed issued for loans categorised under general business and manufacturing sectors, general business and agriculture sectors, as well as manufacturing and agriculture sectors. Lastly, efficiency evaluation of three outputs, namely guarantees issued for loan categorised under all three general business, manufacturing and agriculture sectors is conducted.

Despite the fact that CGC was operating at a relatively low level of overall technical efficiency, the results suggested that CGC is most efficient in granting credit guarantees to three sectors of the economy than one and two sectors. By providing credit guarantees to the three sectors, namely general business, manufacturing and agriculture sectors, the average overall technical efficiency score was higher as compared to single and two outputs. Though the result suggested that both pure technical and scale inefficiency contributed to the inefficiency of CGC, pure technical inefficiency contributed slightly more than scale inefficiency.

As such, CGC should seriously consider reallocating its existing inputs as well as to increase the amount of credit guarantees granted to general business, manufacturing and agriculture sectors in order to achieve a reasonable level of efficiency.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains.

PENILAIAN KECEKAPAN SYARIAKT JAMINAN KREDIT (CGC) MALAYSIA, 1974 - 1999

OLEH

ONG HWAY BOON

Mei 2001

Pengerusi : Profesor Madya Dr. Muzafar Shah Habibullah

Fakulti : Ekonomi dan Pengurusan

Penyelidikan ini dijalankan untuk menilai sejauh manakah kecekapan CGC sebagai penjamin dan memberikan pinjaman secara langsung kepada pengusaha-pengusaha kecil di Malaysia. Penilaian kecekapan CGC ini dilaksanakan dalam tiga peringkat. Pertama, penilaian kecekapan teknikal dan skel dilakukan dengan mengandaikan bahawa CGC mengeluarkan satu output, iaitu menjadi penjamin ataupun memberikan pinjaman kepada salah satu daripada sektor perniagaan, perkilangan ataupun pertanian. Kedua, penilaian kecekapan teknikal dan skel dilakukan dengan mengandaikan bahawa CGC mengeluarkan dua output, iaitu menjadi penjamin ataupun memberikan pinjaman kepada dua sektor ekonomi, samada kepada sektor perniagaan dan perkilangan, perkilangan dan pertanian, ataupun perniagaan dan pertanian. Akhirnya, penilaian kecekapan teknikal and skel dilakukan untuk ketiga-tiga output iaitu sektor perniagaan, perkilangan dan pertanian.

Walaupun keputusan penyelidikan ini menampakkan kecekapan teknikal CGC pada keseluruhannya rendah, CGC telah merekodkan pencapaian min kecekapan teknikal keseluruhan yang paling memuaskan, apabila CGC menjadi penjamin dan memberi kredit secara langsung kepada pengusaha-pengusaha kecil daripada ketiga-tiga sektor perniagaan, perkilangan dan pertanian. Pencapaian min ketidakcekapan teknikal keseluruhannya berpunca daripada ketidakcekapan teknikal berbanding dengan ketidakcekapan skel.

Oleh yang demikian, CGC harus mempertimbangkan penyusunan semula penggunaan input-input yang sedia ada serta mempertingkatkan lagi pengeluaran sijil jaminan kredit dan pinjaman secara langsung kepada ketiga-tiga sektor perniagaan, perkilangan serta pertanian untuk mencapai tahap kecekapan yang lebih memuaskan.

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LIST OF ABBREVIATIONS

3Fs	Fund for Food
A	Agriculture sector
AE	Allocative efficiency
ASI	Annual Survey of Industries for India
ASLS	Association Special Loan Scheme
BLR	Base lending rate
BNM	Bank Negara Malaysia
CCB	Credit Co-operation Banks
CDFA	Credit Department of Farmers' Association
CGC	Credit Guarantee Corporation Berhad
CMI	Census of Manufacturing Industries for Pakistan
CRS	Constant return to scale
DEA	Data envelopment analysis
DFA	Distribution-free approach
DMU	Decision making unit
DRS	Decreasing return to scale
FFS	Franchise Financing Scheme
FGS	Flexi-guarantee Scheme
FSMI	Fund for Small and Medium Industries
FYE	Financial year ended
GB	General business
HPT	Hawkers and Petty Traders Loan Scheme
IFBS	Interest Free Banking Scheme
ILS	Integrated Lending Scheme
IRS	Increasing return to scale
IT	Information technology
KW	Kruskal-Wallis
LFHPT	Loans Funds for Hawkers and Petty Traders
LP	Linear programming
M	Manufacturing sector
MNC	Multinational corporation
MRTS	Marginal rate of technical substitution
NEF	New Entrepreneurs Fund
NEP	New Economic Policy
NIRS	Non-increasing return to scale
NPGS	New Principal Guarantee Scheme
NPLs	Non performing loans
OE	Overall economic efficiency
OTE	Overall technical efficiency
PGS	Principal Guarantee Scheme
PTE	Pure technical efficiency
RFSMI	Rehabilitation Fund for Small and Medium Industries
SE	Scale efficiency
SEFF	Small Entreprenuers Financing Fund

SFA	Stochastic frontier approach
SLS	Special Loan Scheme
SME	Small Medium Enterprise
TFA	Thick frontier approach
TUK	Small Enterprises Fund (Tabung Usahawan Kecil)
VRS	Variable return to scale

CHAPTER I

INTRODUCTION

Under the New Economic Policy (NEP), the prime objectives of the Government were to eradicate poverty and restructure the society. Eradication of poverty would comprise of improving the productivity and increasing the level of income of rural and urban poor, while restructuring of society would include correcting the economic imbalances between various races (Okposin *et al.*, 1999). With these NEP objectives in mind, the government formulated various plans and set up various institutions like Majlis Amanah Rakyat (known as MARA), Urban Development Authority, National Productivity Corporation, Development Bank of Malaysia, Agricultural Bank of Malaysia and Credit Guarantee Corporation Berhad (CGC), all with the intention of providing capital and training facilities to the rural and urban poor, especially among Bumiputeras.

Nevertheless, the private sector was also expected to play its role in complementing the government's effort in eradicating poverty and restructuring of society. Financial institutions which were familiar in extending credit to deserving parties, were obvious source of fund, that could help finance domestic businessmen. This was because domestic businesses, unlike a handful of large corporations, were mostly small and medium businesses and were in need of external funds to survive and grow in the market. Small businesses, or more popularly known as Small and Medium Enterprises (SME), tended to rely heavily on banks for the supply of credit and for transactions and deposit services (Meyer, 1998; Goldberg and White, 1998; DeYoung *et al.*, 1999; Camino and Cardone, 1999).

Even though banks were found to be an important source of external credit to SMEs, in the early days of banking in Malaysia, perhaps even today, banks were reluctant to lend to SMEs due to high risk involved, especially when there were insufficient collateral to be offered as security for loans. This was where CGC stepped in. In order to strike a balance between the conflicting objectives of maximising profits and complementing the government's effort in eradicating poverty and restructuring society, CGC was established in July 1972 to enable SMEs to seek loans from financial institutions. With the setting up of CGC, banks could minimise risk by insuring part of their credit risk arising from any SME loan losses for a nominal guarantee fee.

Background of the Study

Prior to the setting up of CGC, a research was conducted on Credit Corporation India Limited, a body established by the Indian government to eradicate poverty and provide solutions on issues with regards to capital and financing. Subsequently, an officer from CGC India was invited to assist Malaysia to design its first guarantee scheme.

CGC began its operation in 1973 and has launched numerous guarantee schemes since. Being a joint venture establishment of Bank Negara Malaysia (BNM) with all commercial banks and finance companies[1], CGC is the body that stands as guarantor to SMEs which provide insufficient or unable to provide collateral to secure loans from banks. Besides being a guarantor, CGC also provides direct financing of term loans and working capitals to SMEs.

CGC was, and still is, the only establishment in Malaysia that is willing to stand as guarantor to eligible SMEs for the purpose of securing loans from commercial banks and finance companies. Therefore, to ensure the continue availability of credit to SMEs by financial institutions, especially commercial banks and finance companies, maintaining the efficiency of CGC is crucial.

Problem Statement

CGC, under the supervision of BNM and the Ministry of Entrepreneur Development, has been in operation since 1973. However, the performance of CGC since it was established 28 years ago is unknown. Though a report in 1992 was released by the World Bank when they were consulted on issues concerning the role and operation of CGC, organisation set up, capital structure and resource adequacy,

[1] Finance companies offered guaranteed loans via CGC after the relaxation of Section 60(4) of the Banking and Finance Institutions Act 1989 (BAFIA) in 1993. Thus, the initial shareholders of CGC, which consists of BNM and commercial banks, included finance companies after 1993. Detailed information on current shareholders, namely BNM (79.3%), commercial banks and finance companies (20.7%) can be obtained from URL : http://www.cgc.gov.my/

administration, processing claims and adequacy of guarantee schemes, the report was not publicly available.

Besides the numerous and frequent amendments in terms and conditions of eligible SME borrowers, what triggers the question most is the need for a variety of guarantee schemes and loans. This may be an implication of inefficiency on the part of CGC to introduce not only guarantee schemes and loans that were inappropriate for SMEs but also difficult to administer by the financial institutions. Perhaps, it was also due to the frequent change of leadership of CGC, where the appointment of a new CGC chairman seemed to indicate that changes or introduction of new guarantee schemes were on the way. But again, changes might be necessary due to the change in SMEs financial needs.

To know how well, or how bad, CGC was doing, as well as to ascertain the direction of CGC guarantee schemes and provision of loans, we need to monitor the performance of CGC first and foremost. If CGC was doing well, then it is just a matter of how to maintain its good performance for the future, say for the next 5 years.

Objectives of Study

The general objective of this study is to evaluate the efficiency of CGC in providing guarantee coverage and direct lending to SMEs. Though CGC has been involved in the issuance of guarantee coverage and direct lending to sectors of the economy classified (by CGC) as the general business, manufacturing and agricultural sector since 1973, no formal efficiency evaluation has been conducted.

Furthermore, the strength of this study lies on the objective of the study itself, reflecting the ability of providing credit facilities by commercial banks and finance companies to SMEs. Besides, the efficiency of CGC is indirectly linked to the success of SMEs and the achievement of NEP and NDP objectives to reduce and eliminate poverty.

In order to achieve the general objective, the specific objectives of this study are as follows :-

1. By employing a set of time series data, this study attempts to determine the scale and technical efficiency of CGC in providing guarantee coverage to the general business, manufacturing and agricultural sector. The overall technical efficiency of CGC for the year 1974 till 1999 is also determined.
2. To determine whether CGC performs differently when credit guarantees disaggregated between general business, manufacturing and agricultural sector.

Significance of the Study

Firstly, this study provides a thorough analysis on the performance of CGC on guarantee coverage and loan schemes for SME financing. Information on its operational efficiency would be a means of self-monitoring on areas that need improvements. Secondly, since financial institutions financing SMEs under CGC guarantee schemes will determine the revenue, profits and financial soundness of CGC, this study also highlights the sectors of SMEs financing that CGC should avoid and sectors it should pursue to increase its level of overall technical efficiency. In simple words, if CGC is found to be inefficient in guaranteeing loans say to the general business, then this is an indicator that the trend of SMEs financing by financial institutions under CGC schemes in general businesses is to be avoided.

Thirdly, by analysing the level of efficiency achieved by CGC when loan schemes and credit guarantees were granted to the general business, manufacturing and agriculture sectors, it would determine whether CGC should provide guarantee coverage and direct lending to either one, two or all three sectors of the economy. The non-parametric statistical tests conducted on efficiency scores provide an insight on the focus of CGC direct lending as well as guarantee coverage.

Fourthly, this study can be a basis for future study of efficiency of other non-banking institutions in Malaysia, like development banks, namely, Development Bank of Malaysia and Agriculture Bank of Malaysia.

Limitation of the Study

This study used secondary data obtained from CGC's annual report for the financial years ended 1974 to 1999, where the accuracy of the data are highly dependent on the creditability of CGC's reporting. It was noted that figures illustrated on charts and tables reported in several annual reports did not telly with those presented in the text. As such, figures in the text were assumed to be more accurate than those summarised in tables and charts. It was also assumed that all facts and figures reported reflected the true nature of CGC's operation for the period of analysis.

The second limitation is obvious as this study has concentrated on efficiency evaluation of one firm, namely CGC. Nevertheless, it is not unreasonable or irrational since CGC is the single body that is directly responsible to the availability of external credit to SMEs in Malaysia. CGC is the channel for the Malaysian government, through BNM, to allocate funds to finance SME businesses.

CHAPTER II

LITERATURE REVIEW

There were views that opposed to the provision of credit guarantees to finance SME businesses, as well as those who discovered that credit guarantees were one of the effective channels of financial aids to back up local SMEs. As such, prior to a detailed discussion on the role and performance of CGC, some background information on credit guarantee schemes, in general, were examined. In turn, some related literatures on efficiency studies were reviewed.

Credit Guarantee Schemes : Some Background

Not all banks support SME lendings, especially banks in developed countries, where large industrial and commercial groups owned most banks. As such, these banks were much more favourable towards large corporation lendings which were either related to them or were well-established organisations (Gudger, 1998).

SMEs were also known to be inexperienced, compared to huge multinational corporations (MNCs). Camino and Cardone (1999) explained that due to lack of knowledge, SMEs often used improper accounting principles of values to reflect their finances and economic position, information which were insufficient, biased and unreliable to lenders. Thus, quite a substantial amount of risk is involved in SME lendings with high possibility of credit guarantees turning bad. What was feared most was when credit guarantee granted to finance SME would thwart future lending when SMEs defaulted in payment. Furthermore, in most countries, banks were net lenders, demand for credit were more than supply and it was just not worth the risk.

Also, the costs of issuing guarantee coverage involved high administrative overhead and might consume the capital guarantee fund if guarantee fees charged did not establish large enough revenue to cover the cost. Besides, stating the right guarantee fees, or pricing of guarantee coverage, is not an easy task. Pricing of guarantee coverage involved accurate assessment of loan risk and if guarantee fees were to be set accordingly, it would be too costly for SMEs to afford it. If otherwise, credit guarantee corporations would be subjected to losing its capital, since revenue would not cover cost or loan losses (Gudger, 1998).

As such, SME lending was not a simple task, considering the risk involved. Then why provide credit guarantees? One rational gesture to issue guarantees was to overcome collateral constraint of SMEs. Credit proposals was subjected to credit assessment done by banks, namely assessment on creditability and viability of business, as well as security to support the loan. In other words, if SMEs failed to pass the credit assessment done by the banks, especially when no fixed assets were available as a second way out in case of default, then the chance of obtaining financing was rather slim. In the United States, commercial banks were found to be the single most important source of external credit to small businesses (Meyer, 1998) and in order to secure loans, collateral were required. Since SMEs were usually lacked or unable to offer adequate collateral to secure credit facilities from financial institutions, as a substitute to physical asset, guarantees by a third party was an alternative to a secured and easily liquidated collateral. In case of default, bankers could easily call upon the legal contract between the guarantor, borrower and the bankers themselves, to recover their money. But of course, guarantee would only be able to replace fixed assets as collateral, provided that the guarantor was creditable. Moreover, administrating guarantees were not as costly as it seems. For instance, guarantees did not incur any legal fees from creating of caveats or charges and no tedious disposal process of fixed property when there was loan default.

The initial third party guarantees issued in order to secure credit facilities would also help put SMEs' business in place. According to Meyer (1998), as SMEs relationship with banks matures, banks typically reduced interest charged and dropped collateral required. Soon, SMEs were capable of securing further financing without any third party guarantee and bankers were also more inclined in extending credit to SMEs. Findings by Cole (1998) supported Meyer's claim. Cole discovered that banking relationship generated valuable private information about financial prospects of the financial institution's customer, hence, enabling bankers to structure financing schemes for SMEs accordingly.

For the credit guarantees to work, proper and cost-effective loan administration, monitoring of business activity and loan repayments, befitting loan