



UNIVERSITI PUTRA MALAYSIA

**EFFECTIVENESS AND SUSTAINABILITY OF BAITUL MAL WAT
TAMWIL FINANCING IN THE DEVELOPMENT OF MICRO-
ENTERPRISES IN CENTRAL JAVA, INDONESIA**

WIDIYANTO

FEP 2007 13



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**DOCTOR OF PHILOSOPHY
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IN CENTRAL JAVA, INDONESIA**

By

WIDIYANTO

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirement for the Degree of Doctor of Philosophy**

October 2007



DEDICATION

**THIS THESIS IS DEDICATED TO MY BELOVED WIFE SRIYATI AND TO
MY DAUGHTERS: AISYAH S BINTANG, SILMI ZHAFARINA AND SILMI
FATHUNNISA**



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment
of the requirement for the degree of Doctor of Philosophy

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Chairman: Professor Zakariah Abdul Rashid, PhD

Faculty: Economics and Management

The objective of this study is to examine the effectiveness and sustainability of BMT financing in developing micro-enterprises. Specifically, this study provides an evidence of technical efficiency of BMTs in Central Java and the effectiveness, impact and social benefits of BMT financing.

Using non-parametric data envelopment analysis (CCR and BCC models), it is found that technical efficiency of BMTs for the period 2002-2005 is relatively low. The scale efficiency indicates that BMTs operate far below the optimal scale (i.e., 67.00 percent, 78.40 percent, 74.30 percent, and 80.9 percent in 2002, 2003, 2004, and 2005 respectively). The results also show that the gap in efficiency scores exist in



both CCR and BCC models. It implies that BMTs use their inputs sub-optimally. Hence, under increasing return to scale, BMT can improve their performance by increasing their inputs; while under decreasing return to scale BMT can improve their performance by decreasing their inputs.

The results suggest that BMT financing (Islamic financing) was effective in developing micro-enterprises. The results of paired sample *t*-test indicate that BMT financing was able to enhance business performance of micro-enterprises significantly by increasing business income, business profit, business asset and number of employees. In addition, the development of micro-enterprises also was able to reduce the rate of non-performing financing. The rate of non-performing financing is less than five percent. This indicates that micro-enterprises generally were able to develop their business so that they could repay the financing. The results suggest that selection process, business control, incentive system and good relationship construction (cooperation) constitute important factors in increasing the effectiveness of Islamic financing. Furthermore, the effectiveness of Islamic financing still can be improved by including non-performing financing control mechanism in the management system.



Abstrak tesis yang dikemukakan kepada Senat University Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**KAJIAN TERHADAP BAITUL MAL WAT TAMWIL (BMT) DALAM
PEMBIAYAAN FIRMA MIKRO DI JAWA TENGAH, INDONESIA**

Oleh

WIDIYANTO

Oktober 2007

Pengurus : Profesor Zakariah Abdul Rashid, PhD

Fakulti: Ekonomi dan Pengurusan

Tujuan kajian ini ialah untuk mengkaji keberkesanan dan kelastarian pembiayaan BMT untuk memajukan firma mikro. Secara khusus kajian ini menyediakan bukti kecekapan teknik BMT di Jawa Tengah, dan keberkesanan, pengaruh dan manfaat sosial pembiayaan BMT.

Dengan menggunakan analisis DEA (CCR dan BCC model), hasil kajian ini mendapati bahawa kecekapan teknik BMT untuk jangka masa 2002 – 2005 secara relatifnya adalah rendah. Skel kecekapan menunjukkan bahawa BMT beroperasi di bawah skel optimum (masing-masing 67.00 peratus, 78.40 peratus, 74.30 peratus, dan 80.9 peratus untuk tahun 2002, 2003, 2004, and 2005). Dapatan ini menyarankan



bahawa jurang skor kecekapan wujud dalam kedua-dua model (CCR dan BCC model). Ini menunjukkan bahawa BMT menggunakan input secara sub-optimum. Oleh itu, di bawah skel pulangan meningkat, BMT boleh memperbaiki prestasinya dengan meningkatkan input, manakala di bawah skel pulangan menurun BMT boleh memperbaiki prestasinya dengan mengurangkan input.

Dapatan ini menyarankan bahawa pembiayaan BMT berkesan untuk memajukan firma mikro. Dapatan ujian *t* sampel berpasangan menunjukkan bahawa pembiayaan BMT mampu meningkatkan prestasi firma mikro secara signifikan dengan meningkatkan keuntungan, pendapatan, aset, dan bilangan pekerja. Tambahan pula perkembangan firma mikro juga mampu mengurangkan kadar pembiayaan tak berbayar. Kadar pembiayaan tak berbayar adalah kurang dari lima peratus. Ini menunjukkan bahawa secara umumnya firma mikro berupaya memajukan perniagaan mereka dan sterusnya mampu membayar balik pembiayaan. Dapatan kajian ini mencadangkan bahawa proses pemilihan, kawalan perniagaan, sistem insentif dan hubungan kerjasama yang baik merupakan antara faktor-faktor penting untuk meningkatkan kecekapan pembiayaan. Selanjutnya kecekapan pembiayaan boleh diperbaiki dengan mekanisme kawalan pembiayaan tak berbayar dalam sistem pengurusan.



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I certify that an Examination Committee has met on 26 October 2007 to conduct the final examination of Widiyanto on his Doctor of Philosophy thesis entitled “Studies on baitul mal wat tamwil (BMT) in financing micro-enterprises in Central Java, Indonesia” in accordance with Universiti Pertanian Malaysia (Higher Degree) Act 1980 and Universiti Pertanian Malaysia (Higher Degree) Regulations 1981. The Committee recommends that candidate be awarded the relevant degree. Members of the Examination Committee are as follows:

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DECLARATION

I hereby declare that the thesis is based on my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously or concurrently submitted for any other degree at UPM or other institutions.

WIDIYANTO

Date: 14 February 2008



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LIST OF ABBREVIATIONS

AIM	Amanah Ikhtiar Malaysia
BKD	Badan Kredit Desa (Village Credit Board)
BKK	Badan Kredit Kecamatan (Sub-district Credit Board) in Central Java
BK3I	Badan Koordinasi Koperasi Kredit Indonesia (Credit Union Coordination of Indonesia)
BMT	Baitul Mal Wat Tamwil
BPD	Bank Pembangunan Daerah (Regional Development Bank)
BPM	Bank Pertanian Malaysia
BPR	Bank Perkreditan Rakyat (Rural Bank)
BPRS	Bank Perkresitan Rakyat Syari'ah (Syari'ah Rural Bank)
BRI	Bank Rakyat Indonesia
BSN	Bank Simpanan Nasional
DIY	Daerah Istimewa Yogyakarta
DSP	Danamon Simpan Pinjam (Danamon Microfinance Window)
EMI	Enterprise Mentors International
IDT	Inpres Desa Tertinggal (Presidential Instruction for Poverty Alleviation in Less-developed Villages)
IMCP	Interest free Micro Credit Programs
INKOPDIT	Induk Koperasi Kredit (Credit Union Central of Indonesia)
JATENG	Jawa Tengah (Central Java)
KOPDIT	Koperasi Kredit (Credit Union)
KSM	Kelompok Swadaya Masyarakat (Self-help group)



KSP	Koperasi Simpan Pinjam (Saving and Loan Cooperative)
KUD	Koperasi Unit Desa (Village Unit Cooperative)
KUK	Kredit Usaha Kecil (Small Business Credit)
KUT	Kredit Usaha Tani (Farmer's Business Credit)
LDKP	Lembaga Dana Kredit Pedesaan (Rural Fund and Credit Institution)
LDP	Lembaga Perkreditan Desa (Village Credit Institution) in Bali
LSM	Lembaga Swadaya Masyarakat (Society Self-supporting Institution)
MBG	Micro-finance Bank of Georgia
MFI	Microfinance Institution
MSME	Micro Small Medium Enterprise
NGO	Non government organization
NPF	Non-performing Financing
P4K	Pembinaan Peningkatan Pendapatan Petani dan Nelayan Kecil (Income Generating Program for Small Farmer and Fishermen)
PINBUK	Pusat Inkubasi Bisnis Usaha Kecil (Center for the Incubation of Small Business)
TEKUN	Tabung Ekonomi Kumpulan Usaha Niaga
TPSP	Tempat Pelayanan Simpan Pinjam (Savings and Credit Service Posts)
UED-SP	Unit Ekonomi Desa-Simpan Pinjam (Village Saving and Credit Units)
USP	Unit Simpan Pinjam (Savings and Credit Units)
YINBUK	Yayasan Inkubasi Bisnis Usaha Kecil (The Foundation for the Incubation of Small Business)
ZIS	Zakah, Infaq, Shadaqah

CHAPTER 1

INTRODUCTION

Micro-enterprises can be established with a small amount of capital, but in general they have difficulties in obtaining fund (credit) from banks due to their lack of collateral and the tenuous nature of their business establishment. Banks have been reluctant to finance micro-enterprises mainly due to the high transaction cost and default risks involved in dealing with multitudes of micro-enterprises. Conventional banking institution usually writes off the poor as potential creditor. Generally, they are risky borrowers, and even credit-worthy individual seem hardly worth the trouble because the loans are too small. Therefore the establishment of microfinance institution (MFI) to serve micro-enterprise becomes important. In the last few years, micro-credit or micro-finance has become one of the most popular strategies for developing micro-enterprise.

The difficulties of micro-enterprises in obtaining fund from banks occur in most of the developing countries including Indonesia. Therefore, the establishment of microfinance institutions that can serve the need of micro-enterprises in obtaining fund is necessary. This fund is required to give opportunity for them to develop their business and enhance their quality of life. Micro-enterprises play significant roles in Indonesian economy. The significant roles of micro-enterprises can be seen from several indicators. Budiantoro (2004) pointed out that about 98.5 percent of business



entities in Indonesia constitutes of micro-enterprise category. Micro-enterprises not only absorb significant proportion of Indonesian citizens as their workers, but also contribute considerably to gross domestic product (up to 30 percent in 2003). In addition, micro-enterprise development is expected contribute to poverty alleviation. In 2002 the rate of poverty in Indonesia was 18.1 percent (Deputi Koordinasi Bidang Penanggulangan Kemiskinan, 2003). Thus, micro-enterprise development becomes important.

This chapter outlines the background of the study, problem statement, objectives of the study, statement of hypothesis, and significance of the study.

1.1 Background of the Study

In developing countries micro-enterprises play a major role in economic development. Poor people (economically active poor) constitute a vast majority of the population in most developing countries. Yet an overwhelming number of the poor continue to lack of access to basic financial services. Providing financial services can assist the poor to establish or expand micro-enterprises in the informal sector of the economy and help them enhance their quality of life or release them from poverty.



For allaying financing difficulties of micro-enterprises, most of the developing countries set up special institutions to disburse concessionary loans. Micro-credit programs, run mostly by non-governmental organization (NGOs) have filled up the gap, such as Bancasol in Bolivia, Micro-finance Bank of Georgia (MBG Batumi) and Constanta in Georgia, Enterprise Mentors International (EMI) in the U.S., and there are several hundred NGOs operating in Bangladesh (e.g. Grameen Bank – specialized bank for the poor), Bank Pertanian (BPM) and Bank Simpanan Nasional (BSN) in Malaysia, and Bank Rakyat Indonesia Unit Desa (BRI Unit Desa set up by government) and Bank Perkreditan Rakyat (BPR) in Indonesia. All of them serve micro-enterprise. But most of them (as shown in Table 1.1) charge high interest rate and require collateral. For example, in Malaysia, Bank Pertanian Malaysia (BPM) and Bank Simpanan Nasional (BSN) offer micro-credit scheme with an annual interest rate of 4 percent, but in Bolivia, Bancosol charge interest rate of 54.0 percent.

Table 1.1: Interest rate of microfinance institutions (MFIs) in several countries

No	Microfinance Institution and Country	Interest rate
1	Bancosol in Bolivia	54.0 % per annum *
2	Enterprise Mentor International in the U.S	30.0 % per annum *
3	Grameen Bank in Bangladesh	16.0 % per annum *
4	Other MFIs in Bangladesh	18 % -30 % per annum **
5	Microfinance Bank of Georgia in Georgia	3.0 % per month ***
6	Constanta in Georgia	4.0 % per month ***
7	Bank Rakyat Indonesia Unit Desa in Indonesia	33.2 % per annum ****
8	BPM and BSN in Malaysia	4.0% per annum *****

Sources:

* : Woodworth (2000).

** : Alamgir (2000).

*** : Vigenina and Kritikos (2004).

**** : Rujito (2003).

***** : Business Times (2004)



By charging high interest rates, MFIs can afford the high transaction cost of processing large volume of loans as small as a few dollars (Stallings, 1999) . Micro-finance is an inherently costly activity, and if it is to be sustainable, interest rate on micro-loans must be higher than that of other loans (McGuire, 1999). The appearance of many MFIs gives opportunities to micro-enterprises in obtaining capital. Nevertheless, giving loans with very high interest rate does not assist them to develop their business and enhance their income. Charging high interest rate will be burdensome for them, because it would not reduce the cost of capital of micro-enterprise.

In addition, sustainability of the program is important, but charging high interest rate will make new problems for developing of micro-enterprises, since they are only small business that have a low level of asset or income. MFIs do not only provide financial services to micro-enterprise that do not have access to formal financial institution, but it can also assist them to establish or expand viable micro-enterprise in the informal sector of economy. According to Jaya Aranachulum (in Scully, 2004) “micro-credit will never be the only solution for poverty, especially when it comes with exorbitant interest rate [which] create a debt burden on the poor.”

Another problem that must be faced by micro-enterprises is that interest rate system assures a fixed return to the lender while the borrower is left to bear the entire business risk. The borrower must pay back his loan with agreed interest, regardless



of the success or failure of his venture (all the pressure is on the borrower). There is no risk sharing in this system. Therefore, the effectiveness of microfinance in increasing the income of business, profit, assets and household's income must also be considered, and alternative solution must also be looked for. The establishment of MFI based on interest-free (profit sharing) system becomes important to support micro-enterprise to develop their business. Profit-sharing system is expected to give opportunity to micro-enterprises to develop their business, since all parties in this system share risk. Al-Harran (2000) states that there is special need for establishing a financial institution to help the poor by giving financial support and creating profit sharing system. He argues that this system would not only bring about greater efficiency in resources allocation but also reduce the concentration of wealth and power.

In Central Java Indonesia, there are approximately 6.5 million micro, small and medium enterprise (MSME) or 30 percent of the number MSME in Indonesia. According to Sudrajat (2004) this condition constitutes the prime difference of Central Java economy with other provinces. In addition micro-enterprises have difficulties to obtain fund (credit) from the banking system. Most of them can not fulfill the requirements (Character, Capital, Collateral, Capacity, and Condition) whereas credit is important for micro-enterprise (small business) development, raising welfare and alleviating poverty. Based on the research that have been done by the Demography Research Center of Gajah Mada University and Rand Corporation

