

**MEASURING EFFICIENCY OF ISLAMIC MICRO FINANCE  
INSTITUTION**

**CASE STUDY: EFFICIENCY OF BAITUL MAAL WA TAMWIL IN  
INDONESIA**

**AKHMAD AFFANDI MAHFUDZ**

**INSANIAH UNIVERSITY COLLEGE MALAYSIA**

**2013**



## Abstract

Islamic microfinance institutions in Indonesia have displayed their sustainability and robustness in the face of grave global financial crises. However, this idiosyncratic performance dissipates amid its remarkable growth since they encounter sluggish development of national economy after global financial turmoil. Therefore, this study aims to examine their survival to determine their level of efficiency over the period of 2007-2010 and produce a conceptual framework of efficiency that comply with the tenet of *Shariah* principles. This study employs Data Envelopment Analysis (DEA) to measure its efficiency level by taking input and output variable of *Baitul Maal Wa Tamwil* (BMT) in Indonesia which comprises of total deposit, total asset, labor cost, total financing and other operational income. As overall evaluation and based on the meaning of efficiency, BMT in Indonesia particularly in Central of Java and East Java in general are not efficient although individual BMT proves to be efficient in some variables. Some factors contribute to this inefficiency such total asset of BMT that not managed properly to generate more financing and surplus, the role of *Kyai* as leader of *Pondok Pesantren* that influence the behavior of society towards BMT, high operational cost since most BMT incur more expenses for capacity building program, public perception or awareness and good BMT governance. It does not mean that BMT do not gain profit. There are two interpretations with regard to the inefficiency of BMT. First, BMT as Islamic micro finance institution set lower profit to produce more public welfare (surplus). Second, BMT functioning the role of social institutions (*Baitul Maal*) by extending more financing but generating low profit although the findings reveal good participation from the public (high total deposit). The practical implication of this study will show challenges lie ahead in materializing BMT efficiency since BMT is established merely to empower the life of small income family. In other words, *Barakah* cost mostly incurred by BMT. This study also is one of few studies which employ DEA together with efficiency analysis from Islamic perspective taking into great number of leading BMT in Indonesia.

**Keywords:** *Islamic Micro Finance, Data Envelopment Analysis, Efficiency, Baitul Maal Wa Tamwil*



## Table of Contents

Content	Page
DISCLAIMER.....	i
PERMISSION TO USE.....	ii
ABSTRACT.....	iii
ABSTRAK (BAHASA MALAYSIA).....	iv
ACKNOWLEDGMENT.....	v
DEDICATION.....	vi
TABLE OF CONTENT.....	vii
LIST OF TABLE.....	xi
LIST OF DIAGRAM.....	xii
LIST OF PICTURE.....	xiii
LIST OF GRAPH.....	xvi
LIST OF ABBREVIATION.....	xvii
BIBLIOGRAPHY.....	206
APPENDICES.....	213
CHAPTER 1: .....	1
INTRODUCTION .....	1
1.1 Background.....	1
1.1.1. History of Baitul Maal Wa Tamwil (BMT) in Indonesia.....	1
1.1.2. BMT and Islamic Micro Finance.....	3
1.2 Research Issues.....	13
1.3 Objective of Study.....	14
1.4 Problem Statement .....	14
1.5 Scope and Limitation of Study .....	15



1.6	Significant of Study .....	16
1.7	Benefit of Study .....	18
1.8	Organization of Study .....	20
CHAPTER 2: .....		22
LITERATURE REVIEW.....		22
2.1	History of Baitul Maal .....	22
	2.1.1. History of Baitul Maal during the Prophet Time(1-11H/622-632M).....	22
	2.1.2. History of Baitul Maal during the First Caliph (11-13H/632-634M).....	24
	2.1.3. History of Baitul Maal during Second Caliph (23-35H/644-656M).....	25
	2.1.4. History of Baitul Maal during Third Caliph (23-35H/644-656M).....	25
	2.1.5. History of Baitul Maal during Fourth Caliph (35-40H/656-661M).....	26
2.2	Understanding of BMT .....	27
	2.2.1. Characteristic of BMT .....	28
	2.2.2. The Function of BMT .....	29
	2.2.3. Legal Aspect of BMT in Indonesia.....	30
	2.2.4. Operational Principle of BMT.....	32
	2.2.5. Activity of BMT.....	39
	2.2.6. Product of BMT.....	40
	2.2.7. Organizational Structure of BMT.....	41
2.3	The Concept of Efficiency.....	43
	2.3.1. Parametric Approach.....	45
	2.3.2. Non Parametric Approach.....	46
	2.3.3. Relative Efficiency Approach.....	46
	2.3.3.1. Input Approach.....	47
	2.3.3.2. Output Approach.....	49
2.4	The Concept of Economies of Scale.....	51
2.5	The Concept of Efficiency Calculation.....	55
2.6	The Concept of Efficiency in Islam.....	56
	2.6.1. The Concept of Moderation in Islam.....	56
	2.6.2. The Theory of Production in Islam.....	58
	2.6.3. Profit Maximization in Islam.....	60
2.7	Previous Study.....	61
	2.7.1. Efficiency in Islamic Bank.....	61
	2.7.2. Efficiency and Relevant Study of BMT.....	70
CHAPTER 3.....		77
RESEARCH METHODOLOGY.....		77
3.1	Type of Research.....	77
3.2	Data.....	78
	3.2.1. Sources of Data .....	79
	3.2.2. Input and Output Specification.....	81



3.2.3.	Data Collection.....	84
3.2.3.	Sampling and Population.....	84
3.3	Research Framework.....	85
3.4	Hypothesis.....	87
3.5	Operational Definition.....	88
3.6	Technique of Data Analysis.....	90
CHAPTER 4.....		92
DATA ENVELOPMENT ANALYSIS.....		92
4.1	Data Envelopment Analysis (DEA) Model.....	92
4.1.1.	Charnes, Cooper and Rhodes (CCR) model.....	95
4.1.2.	BCC model.....	97
4.2	Return to Scale Model.....	98
4.2.1.	Constant Return to Scale.....	99
4.2.2.	Variable Return to Scale.....	101
4.2.3.	Free Disposal Hull (FDH).....	102
4.3	Efficiency in Financial Institutions.....	104
4.3.1.	Production Approach.....	104
4.3.2.	Intermediation Approach.....	104
4.3.3	Asset Approach.....	105
4.4.	Conceptual Framework of Efficiency in Islam.....	105
CHAPTER 5.....		109
FINDINGS AND DISCUSSIONS.....		109
5.1	Description of Data.....	109
5.1.1.	Annual Growth of Input and Output in Central of Java.....	111
5.1.2.	Annual Growth of Input and Output in East Java.....	153
5.1.3.	Summary of Efficiency Measures.....	164
5.2	Efficiency of BMT.....	167
5.2.1.	Efficiency of BMT in 2007.....	167
5.2.2.	Efficiency of BMT in 2008.....	169
5.2.3.	Efficiency of BMT in 2009.....	171
5.2.4.	Efficiency of BMT in 2010.....	173
5.3.	Sources of Inefficiency .....	175
5.3.1.	Sources of Inefficiency 2007.....	175
5.3.2.	Sources of Inefficiency 2008.....	180
5.3.3.	Sources of Inefficiency 2009.....	184
5.3.4.	Sources of Inefficiency 2010.....	188
5.4.	Return to Scale.....	192
5.5	Critical Thought on the Theory of Profit Maximization in Islam.....	195

CHAPTER 6.....	198
CONCLUSION AND RECOMMENDATION.....	198
6.1 Conclusion.....	198
6.2 Limitation of Study.....	202
6.3 Recommendation.....	203