CLOUD COMPUTING IMPLEMENTATION IN RELATION TO EFFICIENCY: CASE STUDY IN SME COFFEE SHOP

By

Dhea Anika Sarah 11609006

BACHELOR'S DEGREE in

ACCOUNTING FACULTY OF BUSINESS & COMMUNICATION



SWISS GERMAN UNIVERSITY
The Prominence Tower
Jalan Jalur Sutera Barat No. 15, Alam Sutera
Tangerang, Banten 15143 - Indonesia

Revision after Thesis Defense on 6th of July 2020

Dhea Anika Sarah

STATEMENT BY THE AUTHOR

I hereby declare that this submission is my own work and to the best of my knowledge, it contains no material previously published or written by another person, nor material which to a substantial extent has been accepted for the award of any other degree or diploma at any educational institution, except where due acknowledgement is made in the thesis.

Dhea Anika Sarah	
Student	Date
Approved by:	
Imelda Suardi, SE, MAcc, CPA	
Thesis Advisor	Date
Sumini Salem, BSc., SE, MM, MBA	
Thesis Co-Advisor	Date
Dr. Nila K. Hidayat, SE., MM.	
Dean	Date

ABSTRACT

CLOUD COMPUTING IMPLEMENTATION IN RELATION TO EFFICIENCY: CASE STUDY IN SME COFFEE SHOP

By

Dhea Anika Sarah Imelda Suardi, SE, MAcc, CPA, Advisor Sumini Salem, BSc., SE, MM, MBA, Co-Advisor

SWISS GERMAN UNIVERSITY

Cloud computing implementation used to be applied in established corporations with a warehouse sized amount of data storage. A few years ago, this system has penetrated into Indonesia's Micro, Small Medium enterprises. This case study is conducted to observe how the cloud computing application is implemented and to determine the extent of efficiency in the implementation of cloud based system in a coffee shop called KOBAR Indonesia Cafe. The method used in this research is ROI Cloud, Likert Scale and Structural Equation Modelling. In this case study, it is found that cloud computing affects efficiency. The findings are quite parallel with the result from previous research such as Vidhyalakshmi & Kumar (2016) and Ivarasan & Otieno (2018). It is found that the cloud computing implementation has reached through all the aspects of efficiency mentioned in the research. It is also found that the most significant aspect of efficiency in KOBAR Indonesia Cafe is Storage. The least significant aspect of efficiency is Administration.

Keywords: Cloud Computing, MSME, Efficiency, ROI Cloud, Coffee Shop.

© Copyright 2020 by Dhea Anika Sarah All rights reserved

DEDICATION

I dedicate this works to the future of Indonesia's Micro, Small, Medium Enterprises, and my family.

ACKNOWLEDGEMENTS

I would like to express my gratitude towards my thesis advisors, Mrs. Imelda Suardi and Ms. Sumini Salem for their consistent guidance, time spent and advices that support me through the process of writing this research.

To my accounting classmates and lecturers for their presence, patience and knowledge that led me to this day.

I would like to give many thanks to KOBAR Indonesia for the knowledge, experience and particularly for making this research possible.

To my parents for their never-ending support and love that will never runs dry. Thank you for raising me and supporting me throughout four years of my study and my life.

To my brother for motivating me to do my best. Thank you.

To Dimas, Mimi, Dita and Adit for their existence.

Last but definitely not least, to my dearest friends Rewina Aishafitra, Shangita Dyah Nirmala and the Tlists for their presence, sense of humour and support. Thank you for being there for me.

TABLE OF CONTENTS

	Page
STATEMENT BY THE AUTHOR	2
ABSTRACT	3
DEDICATION	
ACKNOWLEDGEMENTS	
TABLE OF CONTENTS	
LIST OF FIGURES	9
LIST OF TABLES	10
CHAPTER 1 - INTRODUCTION	11
1.1 Background	11
1.2 Research Problem	14
1.3 Research Question	15
1.4 Research Objectives	15
1.5 Scope & Limitation	16
1.6 Significance of Study	16
CHAPTER 2 - LITERATURE REVIEW	17
2.1 Cloud Computing	17
2.1.1 Definition	17
2.1.2 Types of Cloud Computing Service Models	
2.1.3 Motivation	
2.1.4 Advantages	
2.1.5 Barriers	
2.2 Efficiency	
2.2.1 Efficiency in Cloud Computing	
2.2.2 Determining Efficiency	
2.2.3 Aspects of Efficiency in Cloud Computing	
2.2.3.1 Administration Efficiency	
2.2.3.2 Environment Efficiency	
2.2.3.3 Network Efficiency	
2.2.3.4 Storage Efficiency	
2.3 Previous Studies	
CHAPTER 3 – RESEARCH METHODS	
3.1 Research Process	35

3.2	Type of Study	36
3.3	Type of Data	
	3.3.1 Sample Questions	
3.4	Research Variable	
3.5	Research Framework	39
3.6	Method of Data Analysis	40
	3.6.1 Structural Equation Model	
	3.6.2 Spearman Ranked Correlation Test	40
	3.6.3 Hypothesis Test	41
3.7	Hypotheses	41
CHA	PTER 4 – RESULTS AND DISCUSSIONS	42
4.1	Company Background	42
	4.1.1 Profile	42
	4.1.2 Organization Structure	43
	4.1.3 KOBAR's Cafe Cloud Computing Adoption	44
4.2	Results and Analysis	
	4.2.1 ROI Cloud Result	49
	4.2.2 Questionnaire Result	
	4.2.3 Interview Result	
	4.2.4 Structural Equation Model	
	4.2.5 Spearman Ranked Correlation Test	
	4.2.6 Hypothesis Test	
CHA	PTER 5 – CONCLUSION AND RECCOMENDATIONS	61
5.1	Conclusion	61
5.2	Recommendations	62
GLO	SSARY	63
REFE	ERENCES	64
CURI	RICULUM VITAE	67

LIST OF FIGURES

Figures	Page
1. Bar Chart of Coffee consumption (Figure 1.1)	12
2. Cloud Computing definition (Figure 2.1)	17
3. ROI Cloud formula (Figure 3.1)	22
4. Total Cost Ownership formula (Figure 4.1)	26
5. Research Process (Figure 5.1)	34
6. Basic Display of Whee POS (Figure 6.1)	44
7. Dashboard Display of The Total Transaction, Sales and Customer (Figure 6.2)	45
8. Display of Cash In, Cash Out, Customer List and Closing Balance (Figure 6.3)	46
9. Display of Cashier, Transaction History and List of Products (Figure 6.4)	47
10. Structural Equation Model (Figure 6.5)	55

LIST OF TABLES

Table	Page
1. ROI Cloud Result (Table 1.1)	48
2. Questionnaire Result (Table 1.2)	50
3. Interview Result (Table 1.3)	53
4. Regression Weight (Table 1.4)	57
8. Correlation table (Table 1.8)	58
9. Paired Sample test (Table 1.9)	59