## UNIVERSITI TEKNOLOGI MARA

# FINANCIAL INCLUSION AND ISLAMIC FINANCIAL SYSTEM: MEASUREMENT AND IMPACT ASSESSMENT IN A CROSS-COUNTRY ANALYSIS

### NUR AMIRAH BINTI BORHAN

Thesis submitted in fulfillment of the requirements for the degree of **Doctor of Philosophy** (Business Management)

**Faculty of Business and Management** 

June 2023

#### ABSTRACT

Financial inclusion is an important development agenda, particularly in developing economies. Access and usage of financial services are critical in empowering people to capture economic opportunities and improve their livelihoods. Meanwhile, the fastgrowing Islamic finance industry should be able to contribute toward financial inclusion as its underlying values promotes inclusion and social justice. While a robust measure of financial inclusion is crucial to further identify the determinants of financial inclusion, an established measurement does not exist until this date. Furthermore, the link between the components of Islamic finance and financial inclusion is an area yet to be established. Therefore, this study first aims to construct a multidimensional Financial Inclusion Index (FII) for a sample of 66 developing economies. Second, the study empirically analyses the effects of the Islamic financial system, institutional environment, socioeconomic factors and measures of technological infrastructure on financial inclusion in said sample. Third, the study further investigates the influence of the overall development of the Islamic financial system and its five key components (i.e., quantitative development, Islamic governance, CSR, knowledge and awareness) on financial inclusion in a smaller sample of 40 developing economies with significant presence of Islamic finance, while controlling for the level of economic development. The FII comprehensively includes five relevant indicators from two main dimensions. Annual data from 2013 to 2019 are obtained from the International Monetary Fund's (FMF) Financial Access Survey, World Bank's MIX Market, and World Council of Credit Unions Statistical Report. A two-stage factor analysis approach is employed for weight assignment. Panel data analysis using pooled OLS, fixed effects and random effects models are used, and model estimations are done separately for the full sample as well as sub-sample analyses based on income levels and geographical regions. In general, the study finds that financial inclusion in developing economies is categorized as low but with significant variation among countries. The findings of the first panel data analysis on the full sample reveal that the unemployment rate, economic freedom, mobile phone subscription and internet penetration have significant impacts on financial inclusion, but Islamic finance as a whole provides no significant influence. On the other hand, the second panel data analysis shows that GDP per capita, Islamic governance, and CSR have significant positive influences on financial inclusion. However, the influence of the explanatory variables is mixed in the sub-sample analyses. This study contributes to important policy implications for the government to use a standardized measure of financial inclusion to monitor the level of financial inclusion. The findings also provide a case for the regulators to establish comprehensive Islamic governance and regulatory framework, and encourages implementation of CSR activities using the Islamic social finance instruments, to improve the overall financial inclusion level.

### ACKNOWLEDGEMENT

First of all, I would like to dedicate this hard work and research to my dear mother, who was with me through all the ups and downs, successes and

failures, and smiles and tears. Thank you for your endless support and unwavering belief in my ability to finish this. I would never have done this without you. This piece of victory is dedicated to you, Mak! To my father, , , thank you for making me stronger, tough and independent. You encouraged me to prove that I can do this despite all the hardships back in 2018.

I am most indebted to my main supervisor, Prof. Dato' Dr. Saadiah Mohamad, whose enduring disposition, kindness and moral support have facilitated the successful completion of my work. I highly appreciate her detailed comments, useful suggestions and inspiring queries which have considerably improved this thesis. Even after her retirement, she took the time to listen and meet me whenever requested. I would also like to express my sincere gratitude to my co-supervisor, Assoc. Prof. Dr. Ruhani Muda, for her prompt feedbacks and suggestions to improve my thesis, as well as her moral support and kindness through my long journey. I'm very grateful to have two very supporting, helpful and understanding mentors through my PhD journey.

To both of my examiners, thank you for making my viva-voce session a memorable journey to be cherished upon. To Assoc. Prof. Dr. Mahyudin Ahmad, thank you for all your constructive and helpful feedbacks that helped me to improve the quality of my work. May Allah ease all of your affairs as you have greatly eased mine. To Prof. Dr. Abdul Ghafar Ismail, thank you for those challenging questions that helped me to think beyond the scope of my current study.

I also wish to express my appreciation to my close friend, Afiqah, for her unwavering moral support, assistance and doa. Thank you for cheering me up when I'm down and for being a good listener. We started this PhD journey together, and I look forward to see you finishing yours too soon. To all friends that I have gained throughout this journey - Kak Jue, Faten, Ain, Fiza - thank you for being the best support system. May Allah bless all of you.

Most importantly, I glorify Allah for His endless mercy on me and giving me the strength, ability and good health to complete what I have started in the first place. There may be room for improvements, but I managed to get it done, and done is better than perfect. Alhamdulillah.

## TABLE OF CONTENTS

CONFIRMATION BY PANEL OF EXAMINERS				
AUTHOR'S DECLARATION				
ABSTRACT				
ACKNOWLEDGEMENT				
TABLE OF CONTENTS				
LIST OF TABLES				
LIST OF FIGURES				
LIST	LIST OF ABBREVATIONS			
СНА	PTER ONE INTRODUCTION	1		
1.1	Introduction	1		
1.2	Background of Study	1		
	1.2.1 Financial Inclusion and Its Measurement	2		
	1.2.2 The Roles of Other Financial Intermediaries in Financial			
	Inclusion	4		
	1.2.3 Factors Influencing Financial Inclusion	6		
1.3	Problem Statement			
1.4	Objectives			
1.5	Research Questions			
1.6	Significance of Study			
1.7	Scope of Study			
1.8	Operational Definition	17		
1.9	Organisation of Chapter	18		
CHAPTER TWO LITERATURE REVIEW				
2.1	Introduction	20		
2.2	The Nexus Between Financial Development and Economic Growth			
2.3	The Concept of Financial Inclusion and Financial Exclusion	22		

2.3.1 History and Definition of Financial Inclusion and Financial

		Exclusion	22		
	2.3.2	Types and Causes of Financial Exclusion	26		
	2.3.3	The Importance of Financial Inclusion	28		
2.4	Measuring Financial Inclusion				
	2.4.1	Issues in Measuring Financial Inclusion	31		
	2.4.2	Dimensions and Indicators of Financial Inclusion	32		
	2.4.3	Multidimensional Financial Inclusion Index	34		
	2.4.4	Comparison of Past Studies	51		
2.5	Determinants of Financial Inclusion				
	2.5.1	Socioeconomic Factors	54		
	2.5.2	Institutional Environment	62		
	2.5.3	Measures of Technological Infrastructure	66		
2.6	The Islamic Financial System and Financial Inclusion				
	2.6.1	Overview of The Islamic Financial System	69		
	2.6.2	Components of The Islamic Financial System	73		
	2.6.3	Basic Financial Products and Services	77		
	2.6.4	Financial Products and Services for the Poor and Low-Income			
		Groups	79		
	2.6.5	Financial Inclusion from Islamic Perspective	81		
	2.6.6	Financial Inclusion Through Islamic Finance	82		
	2.6.7	Islamic Financial System and Its Components	85		
2.7	Summary of Findings and Past Studies				
2.8	Research Gaps and Chapter Conclusion92				

CHAPTER		THREE	THEORETICAL	ARGUMENTS	AND		
		THE	ORETICAL FRAME	WORK		95	
3.1	Introdu	Introduction					
3.2	Theoretical Arguments of Financial Inclusion				95		
	3.2.1	Neoclassical E	Economic Theory			95	
	3.2.2	Political Econ	omy Theory			96	
	3.2.3	Asymmetric In	nformation Theory			97	
	3.2.4	Agency Theor	У			98	
	3.2.5	Resource-base	ed View (RBV)			99	
3.3	Financial Inclusion: An Institutional Theory Perspective						