UNIVERSITI TEKNOLOGI MARA

A MODIFIED LOCATION HOUSING AFFORDABILITY INDEX OF LOW AND MIDDLE INCOME HOUSEHOLDS IN URBAN AREAS OF MALAYSIA

MOHD AZREN BIN HASSAN

Thesis submitted in fulfilment of the requirements for the degree of **Doctor of Philosophy** (Built Environment)

Faculty Architecture, Planning and Surveying

January 2020

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research

:

:

:

:

:

:

Name of Student Student ID No Programme

Faculty Thesis Title Mohd Azren Hassan

2015635452

Doctor of Philosophy (Built Environment) – AP991

Architecture, Planning and Surveying

A Modified Location Housing Affordability Index of Low and Middle Income Households in Urban Areas of Malaysia

Signature of Student Date

January 2020

ABSTRACT

Globally, affordability is vital for the housing market. During the past few years, urban housing in Malaysia has inclined towards severely unaffordable prices. Housing affordability is to ensure that houses offered are affordable for every income groups, especially the low and middle-income households. If the location is included as part of housing affordability criteria, can house affordability be changed? When location is taken into consideration, would housing affordability be different between two income households? The definition together with the quantifying of housing affordability uses household income, and housing expenditure has disregarded transportation expenditure which forms a substantial amount of household expenditure. There are needs to include location as part of the housing affordability. Location of housing project will ultimately influence transportation expenditure. This research aims to determine the housing affordability by applying a simplified Location Housing Affordability Index on low and middle income households in urban areas of Klang Valley. The scope and limitation of the research are within low and middle income households' housing and transportation expenditure and relate the housing affordability to location. This research quantitatively examines three urban areas within the Klang Valley which are Kerinchi, Subang Bestari and Putra Heights, selected based on their distances to Kuala Lumpur as an employment centre. By combining both housing and transportation affordability, a simplified Location Housing Affordability equation has been created to indicate the housing affordability of 434 respondents from low and middle-income households answering a questionnaire survey from the selected urban areas. Using PLS-SEM, this research has identified a relationship between the household income, housing expenditure and transportation expenditure with Location Housing Affordability Index. The findings suggest that the overall location of the urban areas in Malaysia for the low and middleincome households is very unaffordable. In the same time, the finding also suggest that an urban area near (Kerinchi) to employment centre is deemed to be affordable, for intermediate (Subang Bestari) and further (Putra Height) from employment centre are very unaffordable. The recommendation is to propose a simplified equation of the Location Housing Affordability Index as a measuring tool to determine housing affordability in Malaysia. Furthermore, it recommends enhancing housing rental market close to employment centres in relation to location and transportation expenditure. Moreover, the impact of location on housing expenditure needs to be included in the calculation of affordable housing.

ACKNOWLEDGEMENT

In the name of Allah, the Most Gracious and the Most Merciful.

Alhamdulillah, all praises to Allah SWT for the Blessing in giving me the strength and opportunity to complete this challenging PhD journey and research successfully. My special appreciation goes to Prof. TPr. Dr Jamalunlaili Abdullah as my main supervisor, and Prof. Madya Dr Yusfida Ayu Abdullah, my co-supervisor, who had guided me to the finishing line. Special appreciation goes to my previous main supervisor, Prof. Madya Dr Hazlina Hamdan. We started this journey together and patiently showed me the pathway to this research. Thank you all for the supervision and constant support, your invaluable help through constructive comments and suggestions that have contributed to the research.

Sincere thanks to all the people who had participated in this research, from Dewan Bandaraya Kuala Lumpur, Majlis Bandaraya Shah Alam, Majlis Perbandaran Subang Jaya, The Manager and Chairman of the Residential Community of Kerinchi, Subang Bestari and Putra Heights. Also to the people of low and middle-income households of Kerinchi, Subang Bestari and Putra Heights who participated in answering the questionnaire survey.

My deepest gratitude goes to the Centre of Studies of Town and Regional Planning, Faculty of Architecture, Planning and Surveying UiTM for selecting me as one of the receivers of scholarships of Tenaga Pegajar Muda and Ministry of Education for their sponsorship. Not forgetting all the staffs in the Center of Postgraduate Studies FSPU especially Dr Zaharah Yusof, the Coordinator of Research Program. Never forgetting also, friends that had helped me along this journey from postgraduate students of FSPU, my ex colleagues from Suntrack Development, PNB Development and Limkokwing University Creative Technology.

Finally, my utmost gratitude goes to my beloved mother, Khadijah Pit and my siblings for the encouragement and support throughout this difficult journey. To my family, my beloved wife, Nadya Shaffinaz Bajuri, my children, Shauqi Omar, Anaqi Abbas and Qaseh Sakinah, thank you for being the colours of my life. Lastly, this research is dedicated to the loving memory of my very dear late father, Hassan Jantan. I just finished what you had started, and thus this achievement is actually your achievement.

v

TABLE OF CONTENTS

	Page
CONFIRMATION BY PANEL OF EXAMINER	ii
AUTHOR'S DECLARATION	iii
ABSTRACT	iv
ACKNOWLEDGEMENT	v
TABLE OF CONTENT	vi
LIST OF TABLES	xii
LIST OF FIGURES	XV
LIST OF PLATES	xvii
LIST OF SYMBOLS	xviii
LIST OF ABBREVIATIONS	xix

CH	APTER ONE: INTRODUCTION	1
1.1	Introduction	1
1.2	Research Background	1
1.3	Problem Statement	3
1.4	Research Question and Research Objectives	8
	1.4.1 Research Question One (R1)	9
	1.4.2 Research Question Two (R2)	10
	1.4.3 Research Question Three (R3)	10
	1.4.4 Research Question Four (R4)	11
	1.4.5 Research Question Five (R5)	11
1.5	Aim and Objectives	12
1.6	Research Scopes	13
1.7	Research Methodology	14
1.8	Case Study	15
1.9	Significance of Study	16
1.10	Research Process	17
	1.10.1 Stage 1: Preliminary Study	19