

ISLAMIC HEALTH PROTECTION RETIREMENT PLAN
FOR MALAYSIAN EMPLOYEES: AN INVESTIGATION
FROM A BEHAVIOURAL APPROACH

BY

MOHAMMAD ABDUL MATIN CHOWDHURY

A dissertation submitted in fulfilment of the requirement for
the degree of Doctor of Philosophy in Business
Administration (Finance)

Kulliyyah of Economics and Management Sciences
International Islamic University Malaysia

JULY 2021

ABSTRACT

The ageing population has become a crucial concern around the world. Based on the Department of Statistics Malaysia (2020), Malaysia is experiencing a sharp growth in the ageing population- leading to an ageing nation. The public pension scheme is notably inadequate due to its low replacement ratio, while employees provident fund (EPF) exhibits lower savings of participants. This research aims to propose an Islamic health protection retirement plan (i-HPRP) for Malaysian employees, followed by exploring retirees' experiences, investigating the influential factors to the suggested model's preferences, and the moderating effect of age on the hypotheses' relationship. This research has applied sequential mixed methodology consist of qualitative and quantitative; thematic analysis was applied for qualitative, structural equation modelling for quantitative analysis. A total of 28 interviewees for semi-structured interviews, six participants in focus group discussion and 498 survey data were used in this research. The findings from qualitative analysis exhibited that most retirees were not prepared for retirement. The proposed i-HPRP was supported by the takaful practitioners understudy, especially on the fund contribution from two sources: employee and employer. A total of six independent variables from life-cycle theory and social exchange theory were adopted to investigate the relationships with the preferences towards i-HPRP model. The quantitative findings showed the significant role of saving behaviour, future planning and commitment to the preferences towards i-HPRP. In contrast, perceived benefit, spending behaviour did not exhibit a significant effect and trust showed a significant negative relationship. Meanwhile, age significantly moderated the relationship between savings, perceived benefit, future planning, commitment, and preferences towards i-HPRP. The findings of this research would be significant for takaful operators and related government agencies to design an innovative health retirement plan that may assist future retirees regarding future financial preparation and protection.

مُلخَّصُ البَحْث

أصبحت شيخوخة السكان مصدر قلق بالغ في جميع أنحاء العالم، ووفق وزارة الإحصاء الماليزية (2020)؛ تشهد ماليزيا نموًا حادًا في شيخوخة السكان، مما سيؤدي إلى أن تصبح ماليزيا أمة شائخة، ويعدُّ نظام المعاشات العامة الحالي غير ملائم بسبب انخفاض نسبة الاستبدال، كما يُظهر صندوق ادخار الموظفين قلة مدخرات المشاركين فيه، ويهدف هذا البحث إلى اقتراح خطة تقاعد حماية صحية إسلامية للموظفين الماليزيين، واستكشاف تجارب المتقاعدين، والتحقيق في العوامل المؤثرة في تفضيلات المقترح، وتأثير متوسط العمر في العلاقة المفترضة بين المتغيرات، وقد اتبع البحث منهجية مختلطة متسلسلة تتضمن التحليلين الكمي والنوعي، وعبر تطبيق التحليل الموضوعي على البيانات الكيفية، ونمذجة المعادلات الهيكلية النوعية للتحليل الكمي، واستخدم البحث مقابلات شبه منظمة مع 28 مشاركًا، بالإضافة إلى ستة مشاركين في مناقشة مجموعة التركيز، و 498 مشاركًا في المسح الإحصائي، وأظهرت نتائج التحليل النوعي أن معظم المتقاعدين لم يكونوا مستعدين للتقاعد، وأيد ممارسو التأمين التكافلي من المشاركين في البحث المقترح وبخاصة فيما يتعلق بإسهام كلِّ من الموظف ورب العمل في الصندوق، واعتمد ما مجموعه ستة متغيرات، مستقلة من نظريتي دورة الحياة والتبادل الاجتماعي؛ للتحقق من العلاقات مع التفضيلات تجاه المقترح وأظهرت النتائج الكمية دورًا مهمًا للادخار والتخطيط المستقبلي والالتزام بالتفضيلات تجاه المقترح، وفي المقابل؛ لم يُظهر الفائدة المتصورة والسلوك الإنفاقي دورًا مهمًا، بينما أظهرت الثقة علاقة سلبية معنوية، وتبيّن أيضًا أن العمر يتوسط معنويًا العلاقة بين المدخرات، والفوائد المتصورة، والتخطيط المستقبلي والالتزام، والتفضيلات تجاه المقترح، وستكون نتائج هذا البحث مهمة لقطاع التأمين التكافلي والوكالات الحكومية ذات الصلة؛ لتصميم خطة تقاعد حماية صحية مبتكرة قد تساعد المتقاعدين فيما يتعلق بالإعداد المالي وحمايتهم في المستقبل.

APPROVAL PAGE

The dissertation of Mohammad Abdul Matin Chowdhury has been approved by the
following:

Marhanum Che Mohd Salleh
Supervisor

Ahmad Fawwaz Bin Mohd Nasarudin
Co-Supervisor

Siti Salwani Razali
Internal Examiner

Ririn Tri Ratnasari
External Examiner

Sharifah Faigah Syed Alwi
External Examiner

Azhar Bin Mohamad
Chairman

DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

Mohammad Abdul Matin Chowdhury

Signature

Date

INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA

**DECLARATION OF COPYRIGHT AND AFFIRMATION OF
FAIR USE OF UNPUBLISHED RESEARCH**

**ISLAMIC HEALTH PROTECTION RETIREMENT PLAN FOR
MALAYSIAN EMPLOYEES: AN INVESTIGATION FROM A
BEHAVIOURAL APPROACH**

I declare that the copyright holders of this dissertation are jointly owned by student
and IIUM.

Copyright © 2021 Mohammad Abdul Matin Chowdhury and International Islamic University
Malaysia. All rights reserved.

No part of this unpublished research may be reproduced, stored in a retrieval system,
or transmitted, in any form or by any means, electronic, mechanical, photocopying,
recording or otherwise without prior written permission of the copyright holder
except as provided below

1. Any material contained in or derived from this unpublished research
may be used by others in their writing with due acknowledgement.
2. IIUM or its library will have the right to make and transmit copies
(print or electronic) for institutional and academic purposes.
3. The IIUM library will have the right to make, store in a retrieved
system and supply copies of this unpublished research if requested by
other universities and research libraries.

By signing this form, I acknowledged that I have read and understand the IIUM
Intellectual Property Right and Commercialization policy.

Affirmed by Mohammad Abdul Matin Chowdhury

.....
Signature

.....
Date

*With much gratitude and respect, this dissertation is dedicated to my hono'ble
grandfather late Nuruzzaman Miah and my parents Mohammad Abdul Awal*

Chowdhury & Fakhre Jahan

ACKNOWLEDGEMENTS

In the name of Allah, the Most Gracious and Most Merciful. I thank Allah for his love and mercy to assist me to complete this PhD Journey. Selawat to Prophet Muhammad (P.B.U.H.) and his family for spreading Islamic in this world.

And Allah made it not except as [a sign of] good tidings for you and to reassure your hearts thereby. And victory is not except from Allah, the Exalted in Might, the Wise. (Al-Imran: 126)

I realized that my PhD journey is not possible without being tested with various obstacles. However, the creator is given all test suitable to the individual's ability and to make the individual strong enough for the future. And the completion of this thesis has been made possible through the encouragement and support of many individuals. First, special thanks to my parents. Their dedication, patience, eternal supports and encouragement made my PhD journey successful. My siblings and their spouses, especially Nahida and Towfiq, will always be appreciated for their enormous financial and emotional support.

I am grateful to my supervisors, Associate Professor Dr Marhanum Che Mohd Salleh, Professor Azhar bin Mohamad, Assistant Professor Dr Ahmad Fawwaz Bin Mohd Nasarudin, for their encouragement while completing this research. I am constantly amazed at their knowledge and willingness to share their time and expertise. In fact, without my main supervisor Associate Professor Dr Marhanum Che Mohd Salleh, my PhD journey could be devastated. Her dedication, guidance, and supports financially, emotionally and intellectually made this journey successful. I owe her more than I can express and offer her my warmest appreciation, deepest thanks and prayers.

I would also like to acknowledge the International Islamic University Malaysia and the Ministry of Higher Education for allowing me the opportunity to embark on this journey and supports under the "Graduate Research Assistant". Acknowledgement also goes to all who helped me directly or indirectly throughout my PhD journey. Further acknowledgement to those who helped me during the data collection, especially Ashraful Azam Khan, Abdullah al Masud, Professor Md Roshidul Hasan, Md Muhibbullah, Puteri Qartinie, Syakirah Hanim, Dr ABM Asadullah and many more.

Finally, my sincere appreciation goes to all my fellow friends on the same ship as me, Sardar Humayun Kabir, Maruf Hossain, Nazim Uddin. Thanks all for your support and time spent with me.

TABLE OF CONTENTS

Abstract.....	ii
Abstract in Arabic.....	iii
Approval Page.....	iv
Declaration.....	v
Copyright Page.....	vi
Dedication.....	vii
Acknowledgements.....	viii
Table of Contents.....	ix
List of Tables.....	xiii
List of Figures.....	xv
CHAPTER ONE: INTRODUCTION.....	1
1.1 Introduction.....	1
1.2 Background of Study.....	1
1.3 Problem Statement.....	8
1.4 Research Questions.....	12
1.5 Research Objectives.....	12
1.6 Scope of the Study.....	13
1.7 Definition of the key items.....	14
1.8 Significance of the Study.....	15
1.9 Structure of the Research.....	17
CHAPTER TWO: LITERATURE REVIEW.....	19
2.1 Introduction.....	19
2.2 Ageing and Economic Growth.....	19
2.3 Retirement.....	21
2.3.1 Retirement life.....	22
2.4 Retirement Plan.....	25
2.4.1 Individual Retirement Planning Behaviour.....	28
2.4.2 Associated risks in Individual Retirement Planning.....	32
2.4.2.1 Longevity.....	32
2.4.2.2 Inflation.....	33
2.4.2.3 Shariah Compliance.....	33
2.4.2.4 Investment risks.....	33
2.4.2.5 Unemployment.....	34
2.4.2.6 Public policies.....	34
2.4.2.7 Health/Medical risk.....	34
2.5 Global Retirement/Pension System.....	35
2.5.1 Consequences of retirement/pension system in different countries.....	39
2.5.2 Malaysian Retirement/pension.....	42
2.5.2.1 Issues and Challenges.....	44
2.6 Islamic Insurance - Takaful.....	46
2.6.1 Takaful Contracts.....	50
2.6.2 Takaful health annuities in Malaysia.....	52

2.6.3 Challenges faced by <i>takaful</i> in Malaysia	54
2.7 Necessity of Developing a Retirement Health Plan	56
2.7.1 The Rationale of Islamic Health Protection Retirement Plan.....	60
2.8 Chapter Summary	63
CHAPTER THREE: RESEARCH FRAMEWORK.....	64
3.1 Introduction	64
3.2 Research Framework	64
3.3 Life-Cycle Theory (LCT)	66
3.3.1 Saving and Spending Behaviour.....	68
3.4 Behavioural Finance and Social Exchange Theory	72
3.4.1 Perceived benefits	77
3.4.2 Future planning	78
3.4.3 Trust and Commitment	82
3.5 Age as Moderator	84
3.6 Islamic health protection retirement plan (i-HPRP)	87
3.7 Present Research Context and Research Gaps	89
3.8 theoretical framework.....	91
3.9 Summary of Hypothesis	93
3.10 Chapter Summary	95
CHAPTER FOUR: RESEARCH METHODOLOGY.....	96
4.1 Introduction	96
4.2 Research Philosophy.....	96
4.2.1 Positivism.....	99
4.2.2 Interpretivism.....	99
4.2.3 Pragmatism	100
4.2.4 Rationale for the adopted philosophy	100
4.3 Design of this Research.....	101
4.4 Research Approach.....	104
4.4.1 Deductive and Inductive Approaches	104
4.4.2 Mixed Methodology.....	105
4.4.2.1 Advantages of Mixed Methods.....	106
4.4.2.2 Exploratory sequential mixed research methods	108
4.4.2.3 Rationale for the applied research approach.....	110
4.5 Research Strategy	110
4.5.1 Qualitative strategy	111
4.5.2 Data Collection Method (Qualitative)	112
4.5.3 Developing instruments	114
4.5.3.1 Semi-structured interview.....	114
4.5.3.2 Focus group	116
4.5.4 Data Analysis (Qualitative).....	120
4.5.4.1 Background of interviewees (Retirees)	121
4.5.4.2 Background of participants (Focus group)	123
4.5.4.3 Background of practitioners	124
4.5.5 Quantitative strategy	125
4.5.5.1 Survey as Data Collection Method.....	126
4.6 Pilot Study	135
4.6.1 Data Analysis (Quantitative).....	136

4.6.1.1 Reliability and Validity	136
4.6.1.2 Structural Equation Modelling (SEM)	137
4.7 Ethical Consideration	137
4.8 Chapter Summary	138

CHAPTER FIVE: RESULTS AND FINDINGS: QUALITATIVE ANALYSIS 139

5.1 Introduction	139
5.2 Qualitative Analysis	139
5.2.1 Retirement Preparation	140
5.2.2 Retirement life	144
5.2.3 Health Conditions	147
5.2.4 Suggestions	148
5.2.5 Summary of the findings.....	151
5.3 Designing i-HPRP Model.....	152
5.3.1 Contributions.....	152
5.3.2 Benefits	154
5.3.3 Islamic Health Protection Retirement Plan (i-HPRP).....	154
5.4 Second Phase of Interviews (Practitioners).....	155
5.4.1 Findings from practitioners.....	156
5.5 Summary of the Findings	167
5.6 Chapter Summary	170

CHAPTER SIX: QUANTITATIVE DATA ANALYSIS & RESULTS..... 171

6.1 Introduction	171
6.2 Preliminary Data Analysis.....	171
6.2.1 Data Coding	171
6.2.2 Data Screening.....	172
6.2.2.1 Treatment of Missing Data.....	172
6.2.2.2 Checking for outliers	173
6.2.3 Descriptive Analysis	185
6.2.3.1 Response rate.....	185
6.2.3.2 Background of Respondents.....	186
6.2.3.3 Preferences towards i-HPTP.....	189
6.2.3.4 Saving behaviour	191
6.2.3.5 Spending behaviour	192
6.2.3.6 Future planning.....	193
6.2.3.7 Perceived benefit	194
6.2.3.8 Trust.....	195
6.2.3.9 Commitment	196
6.3 Exploratory and Confirmatory Analysis and Result.....	197
6.3.1 Exploratory Factor Analysis	198
6.3.2 Confirmatory Factor Analysis (CFA).....	201
6.3.2.1 Measurement model for the individual construct.....	204
6.3.2.2 Reliability and Validity	215
6.4 Hypotheses Testing.....	218
6.4.1 Full Structural Model.....	220
6.4.2 Structured Model: Moderation effect.....	224
6.5 Chapter Summary	229

CHAPTER SEVEN: DISCUSSION AND CONCLUSION	230
7.1 Introduction	230
7.2 Overview of the Research.....	230
7.3 Discussion on Major Findings.....	235
7.3.1 Discussion on the First Objective	235
7.3.2 Discussion on the Second Objective.....	239
7.3.3 Discussion on the Third Objective.....	243
7.3.4 Discussion on the Fourth Objective.....	246
7.3.5 Discussion on the Fifth Objective.....	251
7.4 Overall discussions.....	254
7.5 Contributions	255
7.5.1 Theoretical Contributions	256
7.5.2 Practical Contributions.....	257
7.5.3 Methodological Contributions	258
7.6 Conclusion.....	259
7.7 Limitation of the Study.....	260
7.8 Recommendation for Future Studies	261
 REFERENCES.....	 263
 APPENDIX A: Interview Questions	 307
APPENDIX B: Interview Questions.....	309
APPENDIX C: Consent Form	311
APPENDIX D: Survey Questionnaire	313
APPENDIX E: Assessment of Normality	318
APPENDIX F: Rotated Component Matrix.....	321
APPENDIX G: Total Variance Explained	322
APPENDIX H: SEM Results	323
APPENDIX I: Moderation Effect Results	329

LIST OF TABLES

Table 2.1 Five pillars of the modern retirement system	36
Table 2.2 Melbourne Mercer Global Pension Index 2018	39
Table 2.3 Key Takaful Indicators	48
Table 2.4 Existing Takaful Health Annuities in Malaysia	53
Table 3.1 Summary and details on Research Hypotheses	94
Table 4.1 Assumptions of philosophies	98
Table 4.2 Main features of philosophies	98
Table 4.3 Differences between deductive and inductive	105
Table 6.1 Trimmed mean value for saving behaviour	175
Table 6.2 Trimmed mean value for Spending behaviour	176
Table 6.3 Trimmed mean value for preference toward i-HPRP	177
Table 6.4 Trimmed mean value for Future planning	178
Table 6.5 Trimmed mean value for Perceived benefit	179
Table 6.6 Trimmed mean value for Trust	180
Table 6.7 Trimmed mean value for Commitment	181
Table 6.8 Measures of Normality based on skewness and kurtosis	183
Table 6.9 Background of respondents	188
Table 6.10 Preferences towards Islamic health protection retirement plan (i-HPRP)	190
Table 6.11 Saving behaviour	191
Table 6.12 Spending behaviour	192
Table 6.13 Future planning	193
Table 6.14 Perceived benefit	194
Table 6.15 Trust	195
Table 6.16 Commitment	197

Table 6.17 Results of Eigenvalue and Variance	199
Table 6.18 Results of EFA (Loadings & Communalities)	200
Table 6.19 Cut off points for Fit indices	203
Table 6.20 Measurement items for saving behaviour	204
Table 6.21 Measurement items for spending behaviour	206
Table 6.22 Measurement items for the preferences toward i=-HPRP	207
Table 6.23 Measurement items for future planning	209
Table 6.24 Measurement items for the perceived benefit	210
Table 6.25 Measurement items for trust	211
Table 6.26 Measurement items for commitment	213
Table 6.27 Confirmed number of measurement items for each construct	215
Table 6.28 Reliability and Validity of the constructs	217
Table 6.29 Hypotheses Statement	219
Table 6.30 Results of hypotheses testing	223
Table 6.31 Results of SEM model (moderation effect)	226
Table 6.32 Results of moderating hypotheses	228

LIST OF FIGURES

Figure 1.1 Projected ageing population aged 60 years or over	2
Figure 1.2 Industry and providers of Islamic financial services,	7
Figure 2.1 Public expenditure for pension	45
Figure 3.1 The research framework	65
Figure 3.2 Theoretical Framework	93
Figure 4.1 Ontological assumptions	97
Figure 4.2 Research design	103
Figure 4.3 Exploratory sequential mixed methods	109
Figure 5.1 i-HPRP model proposed in this research	155
Figure 6.1 Outliers analysis for Saving behaviour	174
Figure 6.2 Outliers analysis for Spending behaviour	175
Figure 6.3 Outliers analysis for preferences toward i-HPRP	176
Figure 6.4 Outliers analysis for Future planning	177
Figure 6.5 Outliers analysis for the Perceived benefit	178
Figure 6.6 Outliers analysis for Trust	179
Figure 6.7 Outliers analysis for Commitment	180
Figure 6.8 Illustration of Measurement Model	202
Figure 6.9 Measurement model for saving behaviour	205
Figure 6.10 Measurement model for saving behaviour	207
Figure 6.11 Measurement model for the preference for i-HPRP	208
Figure 6.12 Measurement model for future planning	209
Figure 6.13 Measurement model for the perceived benefit	211
Figure 6.14 Measurement model for trust	212
Figure 6.15 Measurement model for commitment	213

Figure 6.16 Group measurement model	214
Figure 6.17 Example of a structural model	220
Figure 6.18 Structural model and results	221
Figure 6.19 Graphical illustration of moderating models	225

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

This chapter presents an overview of this research. It consists of seven parts; the chapter starts with an introduction, followed by this research's background, including its importance. It clarifies the research problems in the retirement period, retirement schemes, retirement planning behaviours, and moderating effect of age on the retirement plan decisional behaviours in Malaysia. This chapter also presents the research questions, research objectives and the significance of the research. Finally, this chapter ends with a summary of the overall structure of this research.

1.2 BACKGROUND OF STUDY

The trend of demographic changes is unfolding globally through a declining fertility rate and an increase in the ageing population (Harper & Leeson, 2008; Yakupitiyage, 2018). This trend represents fewer young employees to support a large retired population, leading to economic and financial strain (Ezrati, 2018; Ferreira, 2016; Nagarajan, Teixeira, & Silva, 2016; Pettinger, 2019). Thus, it leads to a gradual rise in the dependency ratio. The young generation has to carry out the responsibilities to take care of retirees (Díaz-Giménez & Díaz-Saavedra, 2009). Consequently, the ageing population's growth weighs down the active workforce (Alam & Mitra, 2012; Bell & Rutherford, 2013; Supan & Jürges, 2012). More so, determining public pensions' expenditure is significantly influenced by the ratio of the number of retirees and working-age populations. With an increasing life expectancy, the demand for pension and retirement benefits rise simultaneously (Pettinger, 2019). Followingly, this absolute

ageing population growth affects national economic growth (Albuquerque & Ferreira, 2015). Besides, an individual's retirement benefit is growing faster than per capita GDP in Asian emerging countries (Morgan & Long, 2019). The ageing population exhibits a sharp growth in Asia. Figure 1.1 display the prediction of the evolution of the ageing population around the world.

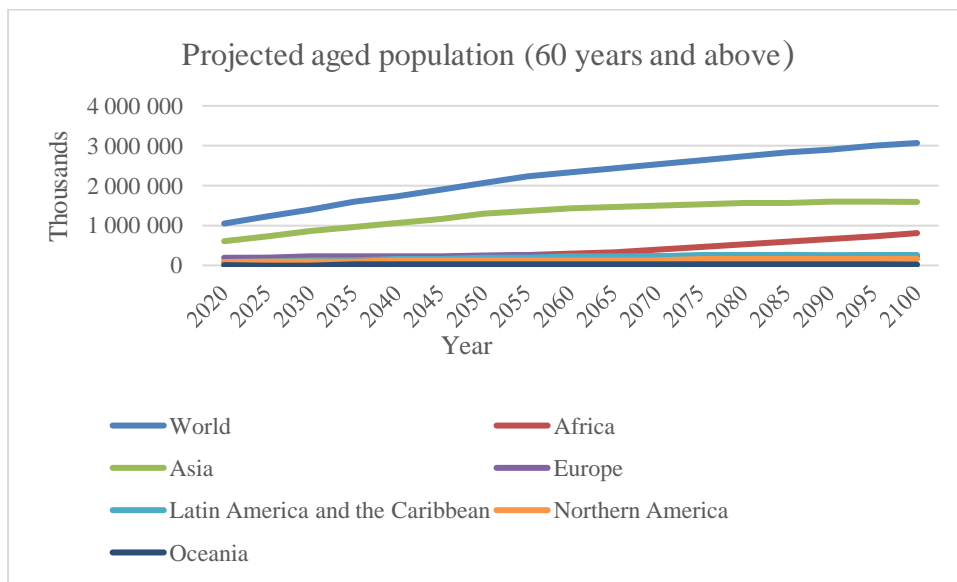


Figure 1.1 Projected ageing population aged 60 years or over

Source: United Nations (2019)

Likewise, Malaysia is experiencing gradual growth in the ageing population (AGI, 2019; World Bank, 2018; Zahid, 2019a). According to the Department of Statistics Malaysia, the growth rate for the ageing population (60+ years old) was 10.7% (2020) from 10.3% (2019) (Department of Statistics Malaysia, 2020). Further, the growth of the ageing population (65+ years old) for Malaysia is projected to be 14.5%, and the dependency ratio is 49.5 in 2040 (Department of Statistics Malaysia, 2020). To this extent, this trend is leading to an increase in public expenditure (Bank Negara Malaysia, 2019). For instance, pension and retirement expenditures increased nearly

tripled between 2007-2017 for Malaysia, also estimated to be tripled from 2017 to 2030 (Yeap & Alima, 2017). Notably, Malaysia's higher public expenditure led to an increase in the national debt, approximately one trillion local currency on public finances (The Edge Markets, 2019). Subsequently, the current retirement system is expected to affect the public financing system in the long term (Malaysian Institute of Economic Research, 2019).

Ageing population particularly vulnerable in natural disasters, pandemic situation, and economic recession- further suffer from chronic diseases, and lack of mobility to access any supports including health and financial (UNDP, 2020; UNHCR, 2020). The ageing population has shown the highest risk group in health consequences from recent COVID-19 (Yukun, Danmeng, & Ge, 2020). As a consequence, the ageing population's growth gradually demands more healthcare services and medicines, thus increasing the chronic diseases' burden in Malaysia (Fitch, 2020). In these circumstances, ageing and poor people seek public assistance for support and protection (Gaspar, 2020), leading to higher public debt, thus reducing the national savings rate (Jorda, Singh, & Taylor, 2020). Public health suggestions, economic considerations and political restraints are vital aspects of national policy responses (Frieden, 2020; Sayeh & Chami, 2020). It is noteworthy to ensure measures to protect public health and service sectors as emerging countries' economies are affected drastically (Gaspar, 2020). Besides, Malaysian household debt is still high compared to peer countries while bank profitability, capitalisation and asset quality are improved (IMF, 2020a). Moreover, private consumption will be ultimately affected, which weigh down the economic growth in Malaysia (Huat & Alias, 2020), expected to a decline rate of 2.61% with a significant unemployment rate in 2020 (cited from; Khalid, 2020). An effective social

protection scheme may protect household incomes, retirees' smooth transition and health care from a hostile crisis, and fortify pliability (IMF, 2020b; Khalid, 2020).

On the other side, the rapid changes in economic and technological endeavours have initiated the policymakers, investors, business people, and service providers to update, develop, and change the existing patterns of various industries, product segmentation, design, and services. With these transformations in economic practices, the retirement plan also moves from a 'defined benefit' to a 'defined contribution' model in both the public and private sectors (Poterba et al., 2009). A defined benefit generally provides a distinguished outcome that follows a basic formula and that considers the duration of employment (Alaudin et al., 2017), along with the wage history. A defined contribution refers to the specified amount allocated to an employee's retirement account (Benartzi & Thaler, 2007). Developed countries have specific retirement plans while developing countries struggle with economic growth rather than design retirement plans (Gupta & Pradhan, 2017). Some countries follow individuals' decisions for retirement planning; there is a system to determine the retirement plan based on personal savings, salary, and income (Pascucci et al., 2012). Other countries follow defined contributions and defined benefits (Gupta & Pradhan, 2017) observed by the government (Butt et al., 2018), for example, Malaysia (Tolos, Wang, Zhang, & Shand, 2014).

According to the Bahagian Pasca Khidmatan (Public Service Department of Malaysia), three types of pension benefits for public servants as; service pension (monthly payment), service gratuity (lump sum payment) and cash award in place of leave (lump sum amount if applicable) (Jabatan Perkhidmatan Awam, 2019). the Malaysian government provides free medical services to an ageing population ("Public health care," 2019). However, due to limited facilities, the waiting period for

appointments and services becomes the usual barrier to receiving such services (Quek, 2009). On the other hand, non-government employees are mandatorily engaged to the Employee Provident fund (EPF) (Afthanorhan, Mamun, Zainol, Foziah, & Awang, 2020). Employment Provident Fund (EPF) is the fully-funded retirement scheme designed by defined contribution for all individual employees in the private sector, a compulsory national saving scheme (AGI, 2019; Tolos et al., 2014). The EPF covers all private-sector employees and non-pensionable public sector employees and allows participants to withdraw some benefits for specific segments such as education, house loans, and health expenses (AGI, 2019; Say, 2018).

Consequently, most people prefer to have a simple and designed retirement plan offered by employers or insurance companies (Benartzi & Thaler, 2007). Individuals plan for retirement by evaluating the potential benefits, thus considering the financial stability and investment approach. The cultural and communal practices drive individuals' views, behaviour and beliefs to retirement planning decisions (Gupta & Pradhan, 2017). Even the growth of the ageing population is considerably smaller for Malaysia compare to developed countries. However, it is still a concern for policymakers to initiate an effective policy to provide a sustainable healthy life for retirees. Regarding citizens, they are still not concerned about retirement life and uncertain endeavours, such as retirement income (Afthanorhan et al., 2020; Jais & Asokumar, 2020), medical assistance (Panruti, Liebig, & Duvvuru, 2015), serious illness protection (Gupta & Pradhan, 2017). A design of defined contribution scheme with several benefits such as monthly retirement income (Vlassoff & Vlassoff, 1980), treatment, medicines and services (Chen et al., 2018; Panruti et al., 2015), emotional (spiritual) supports (Gupta & Pradhan, 2017).

An individual started to think about managing risks as part of their responsibilities, which rapidly inspires people to look for self-protective actions against catastrophes (Magendans, Gutteling, & Zebel, 2017). Meanwhile, retirement planning has been a significant concern for Malaysians since it directly affects individual well-being and social status (Afthanorhan et al., 2020). Hence, three factors, environment, individual, and psychology, affect employees' behaviour toward retirement planning (Engel, Blackwell, & Miniard, 1990). Environment refers to the culture, social standards, others influence, and working environment; individual refers to demographic characteristics such as age; and psychology defines an individual's inner governance (Hassan et al., 2016). Several factors affect an individual to the preference for a retirement product or service.

Conversely, Malaysia is a hub for implementing Islamic finance and banking in most aspects and areas (Hossain, 2016). It has shown the rapid growth of Islamic finance in various aspects. It maintains the leader of Islamic finance and banking globally recognised by TRIFDI (Thomson Reuter's Islamic Finance Development Indicator 2017) for the last five years (MIFC, 2018). More so, Malaysia recorded 85.2% of total Asian Islamic assets under Management for the year 2017, which evidenced the growth and the sustainability of Malaysian Islamic finance (MIFC, 2018). Figure 1.2 displays the industry and providers of products and services under the Islamic finance umbrella. Indeed, Malaysia has already received recognition as a role model for Islamic financial development (Abdullah, 2019). Thus, several industries and subsidiaries are associated with the Islamic finance industry in shaping growth and sustainability through penetrating funds and business opportunities. The *takaful* sector (Islamic insurance) is one of the pioneer sectors associating over the decades and supporting its growth. Yet,

the *takaful* industry could not develop businesses in areas such as micro-takaful, medical, and retirement in Malaysia (MIFC, 2015).



Figure 1.2 Industry and providers of Islamic financial services,

Source: (MIFC, 2018)

To sum up the above discussions, the ageing population puts pressure on policymakers related to social welfares and retirement schemes, including retirement benefits, health care supports, and medical expenses. To these extents, economic growth could be affected, such a gradual increase in the ageing population due to higher public expenditures on non-productive activities (e.g., retirement and health care), greater demands for care and treatment relevant to deteriorating and chronic diseases, higher dependency ratio (reduces active workforce) (Marešová, Mohelská, & Kuča, 2015; Pettinger, 2019). However, these extents open opportunities for both the business sector and policymakers, for instance, opportunities to offer specialized products and services for the ageing population, scopes in care homes as business and employment, tourism,

shifting current scheme to contribution-based scheme for all (raising capital funds), diversifying financing sources, financing health and long term care and so on (Cylus, Roubal, Ong, & Barber, 2019; Marešová et al., 2015; Pettinger, 2019). To be concluded, Malaysia can achieve several benefits by designing an Islamic retirement plan, including health protection. An Islamic health retirement plan may enable to cater to all employees from different backgrounds. Takaful sectors can be institutional or idiosyncratically can offer such a plan. With the proper information, diversified and significant features, effective communication and linkage with employers or/and government, connection with employees (Gupta & Pradhan, 2017) may achieve the scheme's sustainability. More so, an Islamic product or service is acceptable by all religious or non-religious individuals. The next section discusses the problem statement. Meanwhile, individuals perceive certain features embedded in the retirement plan. Thus, several factors, like economic and psychological, influence employees to choose a product, including a retirement plan.

1.3 PROBLEM STATEMENT

Retirement has become a crucial concern for all, including retirees, policymakers, and working adults. Retirement is the last phase of the human lifecycle, named the golden age. Supposedly, this phase of life should be spent with relaxation, hassle-free and protected.

Many Malaysian could not afford retirement due to insufficient savings in earlier life (Habib, 2007). A study conducted by Tai and Sapuan (2018) reported that 62% of Malaysian working adults do not have a formal retirement plan. Similarly, Haron et al. (2019), and Sabri and Falahati (2013) stated that Malaysian were not prepared for retirement. A report published by HSBC noted that 85% of Malaysian retirees have