



RETIREMENT SCHEMES, ITS CHALLENGES AND WAYS OF REFORMATION: A CROSS-BORDER STUDY



 Marhanum Che
Mohd Salleh^{1*}

 Mohammad Abdul
Matin Chowdhury²

 Siti Salwani
Razali³

 Nan Nurhidayu
Megat Laksana⁴

^{1,2,3,4}International Islamic University Malaysia, Malaysia.

¹Email: marhanum@iium.edu.my Tel: +601162960996

²Email: matinchy@outlook.com Tel: +60163831019

³Email: salwani@iium.edu.my Tel: +0192151251

⁴Email: nanhidayu@iium.edu.my Tel: +60132391877



(+ Corresponding author)

ABSTRACT

Article History

Received: 18 May 2020

Revised: 22 June 2020

Accepted: 24 July 2020

Published: 12 August 2020

Keywords

Retirement plan

Pension

Challenges

Ageing population

Malaysia

Cross-border study.

The number of aging population (age 65 years and above) is expected to increase and grow double digit by the 2030s (Employees' Provident Fund (EPF), 2015). This scenario implies that there should be enough effort and preparation done by an individual or government to face any difficulties especially with regards to financial stability of people on their golden age. In view of this issue, this research aims to study existing retirement/pension plan offered by different countries in the world and Malaysian pension system. This study also highlighted the issues and challenges faced by existing retirement system and ways of reformation. To achieve the said objective, this research is conducted qualitatively based on literature review and observation on existing retirement planning that offered by selected countries in the world. The findings of this study will enable policy makers and researchers to consider further development in regards to the reformation needed to the retirement plan.

Contribution/ Originality: This study contributes in the existing literature and would be useful for policy makers to identify the gaps in the existing pension system as well as necessity of reformation of pension system. Finally, this study may trigger insurance companies to develop retirement plans for future retirees.

1. INTRODUCTION

There are many drawbacks in the human life cycle which have to be taken into consideration. The life of retiree is not fixed individually; some live longer whereas others live shorter than the expectation. In reality, the retiree plan for an expected period of retirement expenditure with savings but in retirement period, there might be some unplanned events occurred which reduced the funds significantly. This may lead to the need to cut down the living standards which bring several difficulties in retirement life such as lack of funds for health care or other events. The lifetime of a person is uncertain and the longevity has increased over the period due to rapid improvements on medical treatment, health consciousness and the education level (Baird, 2016; Rappaport, 2017).

The rapid changes of economic and technological advancement in the world initiate the policy makers, investors, business people, and services providers to update, develop, and change the existing pattern of various

industry, product segmentation, design, and services. In order to balance the movement of this transformation of economic pattern, the retirement plan is also moving from 'distinct benefit' to 'distinct offerings' for the both public and private employment (Poterba, Venti, & Wise, 2009). Distinct benefit generally provides the distinguished outcome that followed by the basic formula that consider the duration of employment (Alaudin, Ismail, & Isa, 2017) and the wage history whereas the distinct offerings refers the specified amount put into employee's retirement account, then the authorized body determine the savings and the investment of the amount deposited in the purpose of retirement plan which can be invested by the employer or government in order to generates more benefit (Benartzi & Thaler, 2007). There are few ways to set retirement income level which includes the ratio of income and expenses, living standard (Yuh, Hanna, & Montalto, 1998) during employment period and the demands for retirement period (Alaudin, Ismail, & Isa, 2016). However, the developed countries have the plan for retirement while the under developed countries are still struggling with economic growth to develop retirement plan (Gupta & Pradhan, 2017). There are various types of retirement plan and implementation which differs according to countries. Some countries follow their individual decision and system to determine the retirement plan based on personal savings, salary income (Pascucci, Vázquez Cendón, & Calvo-Garrido, 2012) as the government do not support and others follow the arrangement of distinct contributions and distinct benefits (Gupta & Pradhan, 2017) by the government (Butt, Donald, Foster, Thorp, & Warren, 2018). Majority of people prefer to have simple and designed retirement plan offered by employer or insurance companies led by traditional process (Benartzi & Thaler, 2007).

The main purpose of this study is to explore different pension system around the world and point out their flaws, gaps and challenges. This study is also aim to examine the Malaysian pension system and issues. Finally, this study hopes to prove that the reformation of current pension system is necessary in order to offer sustainable retirement system which is able to face or answer the issues of growing ageing population. The study will firstly discusses the pension systems around the world, challenges and evidence of reforms followed by Malaysian pension system, issues and challenges, and necessity of reform retirement system with conclusion.

2. LITERATURE

2.1. Pension Systems around the World

Public retirement scheme is basic, fixed-rate pensions, universal, providing benefits depend on certain working periods and generally financed by tax revenue. However, there are several retirement and pension system exists in the world (Tolos, Wang, Zhang, & Shand, 2014). Thus, several countries follow their individual decision and system to determine the retirement plan based on personal savings, salary income (Pascucci et al., 2012) as the government do not support and others follow the arrangement of distinct contributions and distinct benefits (Gupta & Pradhan, 2017) by the government (Butt et al., 2018). Hence, both individuals and societies are stressed with inclusion of financial protection during retirement whereas most countries are contending with the social, economic and financial effects of ageing population (Mercer, 2018). Hence, retirement-earning administrations are diverse and designed with various programs; furthermore, categorizing pension system and various retirement-earnings scheme is subsequently tough (Organization for Economic Cooperation and Development (OECD), 2017). A multi-pillar pension systems proposed by several organizations including the World Bank, the ILO, The Geneva Association and IMF (Ostaszewski, 2012).

There are basically five pillars retirement/pension income security which was introduced by the World Bank (Robert Holzmann, Paul, & Dorfman, 2008). For instance; Zero pillar (non-contributory basic), first pillar (public pension with contributions linked to earnings), second pillar (defined contribution, occupational or personal pension), third pillar (voluntary and fully funded) and fourth pillar (voluntary).

Table-1. Five pillars of modern retirement system.

Pillar	Essential Characteristics
Pillar 0	Non-contributory minimal assistance to the poor, typically means-tested
Pillar 1	Public pension schemes to provide for basic needs; contributory and redistributive and typically financed on a pay-as-you-go basis
Pillar 2	Private occupational pension schemes to supplement pillar 1; can be voluntary or mandatory and can comprise defined benefit or defined contribution plans
Pillar 3	Individual savings to provide for future withdrawals and/or annuities in various forms; can be voluntary, but often enforced by the state
Pillar 4	A set of labor market policies to extend work life and enable more part-time work for the formally retired; informal family support as additional dimension

Source: Robert Holzmann et al. (2008); World Economic Forum (WEF) (2013).

Thus, five pillar retirement system introduced by the World Bank is a conceptual framework of national retirement system around the world (Robert Holzmann et al., 2008; Sinha, 2018). Consequently, every individual pillar is the design of different pension plan and five pillars together institute a retirement system. These various pension plans constituted the national retirement system to secure the old age financial endeavors (Sinha, 2018). Public retirement scheme is basic, fixed-rate pensions, universal, providing benefits depend on certain working periods and generally financed by tax revenue. However, later, pension system comprehends the combination of defined contribution from defined benefits which is fully funded pillar in or out of prevailing tool (Ponds, Severinson, & Yermo, 2011; Schwarz & Demirguc-Kunt, 1999). Thus, developed countries improved the scheme from defined benefit to defined contribution to social insurance model to protect income which depends on past contributions and earnings (Poterba et al., 2009). Few countries have introduced pre-funded mandatory plans where collected funds invested in different sectors (Hohnerlein, 2019). Besides, every country has its own unique system to serve retiree (Nomura, 2019). Indeed, the main purpose of the pension system around the world is social welfare for retirees (Koutronas & Yew, 2017).

Almost all countries have changed the retirement age linked to the growth of life expectancy for instance; Bermuda, Latvia, Lithuania, Paraguay and Greece (Schwarz & Demirguc-Kunt, 1999). Unstable economic development, greater inflation and unemployment rates steadily weakened the financial strength of pension system (Koutronas & Yew, 2017). As a result, there was reformation of pension system through automatic modification tools which could identify actuarial challenges beyond impacting mechanical features of system (Koutronas & Yew, 2017). Indeed, the main purpose of reformation to improve pension efficiency, thus concentrating necessary changes, for instances; retirement age, input (contribution) rate, replacement rate, advantage indexation (Brooks, 2009; Hur, 2010). Subsequently, there are few European countries focused on lowering replacement rates and also reducing distributions, for example; Switzerland, Italy, Portugal, Germany, Sweden, France and Finland (Modigliani & Muralidhar, 2004). In contrast, South American countries such as; Brazil, Chile and Peru have concentrated to increase replacement rates as well as distributions (Brooks, 2009). On the other hand, Asian countries such as; Japan, South Korea, Hong Kong, Singapore and Taiwan implemented mixed of both options (Hur, 2010).

Ponds et al. (2011) stated that several countries transferred their public servants to main public pension system such as; USA, Spain, Poland, Greece, Mexico, Czech Republic, Hungary, Chile whereby few countries added a full-funded-defined contribution for instance; Poland, Mexico, Hungary, Chile and Denmark. Not to mention, there are some countries have reformed their pension systems required apparatuses to backing a new fully-funded system such as ; Kazakhstan, Hungary, Poland, Bolivia, Chile, El Salvador and Mexico (Koutronas & Yew, 2017). Furthermore, several countries shift to pay-as-you-go from provident funds such as; Nigeria or individual notional accounts from pay-as-you-go system (the retirement benefits are imposed from present employees) such as; Poland, Latvia, Italy and Sweden (Schwarz & Demirguc-Kunt, 1999).

Table-2. Melbourne mercer global pension index 2018.

Grade	Index Value	Countries		Description
A	>80	Netherlands Denmark		A first class and robust retirement income system that delivers good benefits, is sustainable and has a high level of integrity
B+	75-80	Nil		A system that has a sound structure, with many good features, but has some areas for improvement that differentiates it from an A-grade system.
B	65-75	Finland Australia Sweden Norway Singapore Chile New Zealand	Canada Switzerland Ireland Germany	
C+	60-65	Colombia UK Peru France		A system that has some good features, but also has major risks and/or shortcomings that should be addressed. Without these improvements, its efficacy and/or long-term sustainability can be questioned.
C	50-60	Saudi Arabia USA Malaysia Brazil Hong Kong Spain	Poland Austria Indonesia Italy South Africa	A system that has some desirable features, but also has major weaknesses and/or omissions that needs to be addressed. Without these improvements, its efficacy and sustainability are in doubt.
D	35-50	Japan Korea (South) China	Mexico India Argentina	
E	<35	Nil		A poor system that may be in the early stages of development or non-existent

Source: Mercer (2018).

According to Mercer Global Pension Index Table 2, Denmark and Netherlands have the significant and top pension system in the world those received an A-Grade in 2018 which are considered as sustainable and highly integrated system. Denmark reported to have the best pension system in the world (Mercer, 2018). On this earth, it is the home of happiness for some people despite the long, dark winter and overcast skies (Klitgard, 2017). Surprisingly, there is no country with B+ grade pension system recorded in 2018 which leads to the huge gap between best two countries to other countries. Consequently, Countries like Finland, Australia, Singapore, New Zealand, Norway and Canada have B-grade pension system those carry out good structure but still lacking some mechanisms. UK, France, Colombia and Peru fall under C+- Category whereas USA, Saudi Arabia, Indonesia, Malaysia and few other countries have C-grade pension system those system has few good features with major weaknesses. Unexpectedly, Japan, South Korea and China have D-grade pension system which has few desirable features and there is no country found under E-grade system which is in early stages of development or non-existent. It indicates that almost every country has pension system.

3. METHODOLOGY

This research is conduct qualitatively by observing the practice of retirement scheme among countries like Malaysia, United Kingdom (UK), USA, Spain, Poland, Greece, Mexico, Czech Republic, Hungary, Chile, Singapore, and others. The main objective is to observe various challenges and way of reformation of retirement scheme both in Malaysia and other countries.

4. FINDINGS

4.1. Challenges of Pension System in Different Countries

The rapid growth of ageing population due to less fertility and higher longevity globally affects negatively on economic expansion, changes in house behaviour, workforce, retirement facilities, public revenues and redistribution of income (Koutronas & Yew, 2017). Apart from the growth of life expectancy, steady growth/interest economic environment lower down long term benefit of compound interest especially distressing defined contribution provisions (Knox, 2018). These issues put an impact on family solidity and functioning, living activities, housing and movement (Koutronas & Yew, 2017). Furthermore, retirement income is under pressure in the world (Say, 2018). Thus, there are discrepancies with retirement income in between young retirees and older retirees (75 years and above) that leads to higher poverty risk for elderly retirees in many countries (Hohnerlein, 2019). Pointedly, government debt distresses to provide benefits in the pay-as-go-system of few countries and long term adequacy of pension benefits are affected through high household debt in other countries (Knox, 2018). Likewise, unstable economic development, greater inflation and unemployment rates steadily weakened the financial strength of pension system (Koutronas & Yew, 2017). As a result, global policy makers concern over reform existing retirement plans responding to the demographic changes (higher growth of life expectancy and lower birth rate) with greater emphasize on systemic issues and financial sustainability, for instance, moving system to private and contribution pension scheme and developing multi-pillar systems (Drahokoupil & Domonkos, 2012; Ebbinghaus, 2015; Grech, 2012; Hohnerlein, 2019; Holzmann, 2012; Orenstein, 2011; Schwarz et al., 2014).

Consequently, Danish pension market is promptly reshaping due to increase of divorce rates, enhanced job mobility and pressure of modern life (Klitgard, 2017). Danish pension system is also facing significant threat towards its sustainability (Jensen, 2018; Klitgard, 2017) due to growth of ageing population like other developed countries (Klitgard, 2017; World Economic Forum (WEF), 2017) low returns from retirement saving which reduce incentives to save for retirement (Jensen, 2018; World Economic Forum (WEF), 2017) fall in solidity of trade union and zeitgeist (changing in traditional system) over collective and mandatory system and tax system's uncertainty (Jensen, 2018). According to European Trade Union Institute, Danish pension system are having two issues in pension ratios causing from public and private pension supports such as; (1) low supplementary pension pay as 20-25% working population is not covered by occupational pensions, (2) low to middle income group labors may have small reimbursements from their accrued savings for last period on the labor market those are covered by occupational pensions due to growth of extra private pension privileges (European Trade Union Institute, 2017). Surprisingly, Andersen (2016) also highlighted several problems such as; gender discrimination in Danish pension system specially middle class women those do not receive pension points during their maternity leave and annual pensions are disparately lower for women even though the number of women pensioners and life expectancy higher; pension earning is subject to income tax; people misapprehend their incentives as the system is quite complex; social inequality in life expectancy and health is high and finally poverty trap. In short, Danish pension system solved economic challenges largely but few social issues are intensified and also political intimidations taken over economic intimidations (Andersen, 2016).

Netherlands, similar to other developed countries, are facing issues on their retirement plan due to growth of ageing population and lower birth rate (Price Waterhouse Coopers (PWC), 2017; World Economic Forum (WEF), 2017) insufficient savings rate (World Economic Forum (WEF), 2017) low return on investment (Price Waterhouse Coopers (PWC), 2017; World Economic Forum (WEF), 2017) individual responsibility to manage retirement savings (World Economic Forum (WEF), 2017) technological changes, social changes, political and legislation changes (Price Waterhouse Coopers (PWC), 2017). Above and beyond, nearly two-thirds of Dutch people do not have confidence on maintaining or desired their standard of living during retirement. Subsequently, Canada is facing issues over retirement plan due to life expectancy growth and lower birth rates (CommonWealth, 2017; Deraspe, 2016; World Economic Forum (WEF), 2017) insufficient saving rates (Milligan, 2018; World

Economic Forum (WEF), 2017) lower investment return (CommonWealth, 2017; Deraspe, 2016; World Economic Forum (WEF), 2017) pension inequality (CommonWealth, 2017) and individual responsibility to manage retirement savings (World Economic Forum (WEF), 2017). Likewise, UK policy makers are also facing issues on sustainability of retirement plan such as; growth of life expectancy and lower birth rates, lower financial literacy rate, deficiency of access into pension plan and insufficient saving rates (Cowler, 2019; World Economic Forum (WEF), 2017).

Not to mention that most of the countries are facing issues of life expectancy growth with lower birth rates, similarly, several issues are facing by Asian pension systems due to demographic changes, growth of life expectancy and low birth rates, low investment returns (Anderson, 2019). Notwithstanding, Japan's ageing population is increasing rapidly whereas 27% of older population (65years and above) was recorded in 2016 and projected increase to 39% in 2050 (World Economic Forum (WEF), 2017). Besides life expectancy growth and lower birth rates (Nippon, 2019; Nomura, 2019; World Economic Forum (WEF), 2017) lower financial literacy rate, deficiency of easy access to pensions (World Economic Forum (WEF), 2017) and insufficient saving rates (Nippon, 2019; World Economic Forum (WEF), 2017) are current issues for Japanese retirement scheme. Unexpectedly, even Singapore has the best pension system in Asia region, it is still facing some challenges in its retirement plan due to growth of life expectancy and lower birth rates (Global-is-asian, 2018; Sen, 2019; World Economic Forum (WEF), 2017) lower retirement income (Global-is-asian, 2018) lower financial literacy rates, low return on investment and individual responsibility to manage retirement savings (Sen, 2019; World Economic Forum (WEF), 2017) retirees' expenses are higher than retirement income, lack of awareness over retirement needs, dependency on adult children (Sen, 2019).

Public pension system enables to provide sufficient, reasonable, supportable and robust benefits (Holzmann et al., 2005) only sixty percent of replacement rate can be given (Grech, 2013) within fifteen years of retirement (Schwarz, 2006). In this consequence, younger generation may pay higher tax in order to receive same replacement rates during their retirement (Koutronas & Yew, 2017). In these above consequences, it is proven that pension system around the world is facing several issues such as growth of ageing population and lower growth of birth rates, lower retirement income, lower financial literacy rates, unstable economic situation, insufficient saving rates, inflation, lack of awareness on retirement income and dependency on children.

4.2. Evidence and Necessity of Reform Pension System

From the raised issues and challenges, it is evident that the reformation of the current retirement system is really necessary, therefore, governments should take reform strategies and policies which will enable the system to stay financially stable in order to deliver efficient and robust coverage to the public (Koutronas & Yew, 2017). Thus, many policy makers around the world has taken initiatives to respond towards sustainability issue of public pension system (Koutronas & Yew, 2017). Developed countries improved the scheme from defined benefit to defined contribution to social insurance model to protect income which depends on past contributions and earnings. Few countries have introduced pre-funded mandatory plans where collected funds invested in different sectors (Hohnerlein, 2019). Furthermore, policy makers have emphasized on public retirement plan reformation in order to provide secured income for elderly people along to alleviate poverty risks during retirement (Hohnerlein, 2019). As a result, most developed and developing countries are shaping their retirement plans through increasing retirement age, influencing people work longer, enhancing funding levels and reducing withdrawal amount before retirement age (Anderson, 2019). As part of reform in pension system, Danish government has decided to increase retirement age from 2025 (Klitgard, 2017). Similarly, UK government planning to extend retirement age to 75 (Cowler, 2019). Undeniably, the main purpose of reformation to improve pension efficiency, thus concentrating necessary changes, for instances; retirement age, input (contribution) rate, replacement rate, advantage indexation (Brooks, 2009; Hur, 2010).

There was reformation of pension system through automatic modification tools which could identify actuarial challenges beyond impacting power-driven features of system (Koutronas & Yew, 2017). Almost all countries changed retirement age linked to the growth of life expectancy for instance; Bermuda, Latvia, Lithuania, Paraguay and Greece (Schwarz & Demirguc-Kunt, 1999). Thus, South American countries such as; Brazil, Chile and Peru have concentrated to increase replacement rates as well as distributions (Brooks, 2009). In contrast, several European countries focused on lowering replacement rates and also reducing distributions, for example; Switzerland, Italy, Portugal, Germany, Sweden, France and Finland (Modigliani & Muralidhar, 2004). On the other hand, Asian countries such as; Japan, South Korea, Hong Kong, Singapore and Taiwan implemented mixed of both options (Hur, 2010).

Pension system comprehends the combination of defined contribution from defined benefits which is fully funded pillar in or out of prevailing tool (Ponds et al., 2011; Schwarz & Demirguc-Kunt, 1999). There are some countries who have reformed their pension systems required apparatuses to backing a new fully-funded system such as ; Kazakhstan, Hungary, Poland, Bolivia, Chile, El Salvador and Mexico (Koutronas & Yew, 2017). Subsequently, several countries transferred their public servants to main public pension system such as; USA, Spain, Poland, Greece, Mexico, Czech Republic, Hungary, Chile whereby few countries added a full-funded-defined contribution for instance; Poland, Mexico, Hungary, Chile and Denmark (Ponds et al., 2011). On other hand, there are few countries shift to pay-as-you-go from provident funds such as; Nigeria or individual notional accounts from pay-as-you-go system such as; Poland, Latvia, Italy and Sweden (Schwarz & Demirguc-Kunt, 1999).

However, the main purpose of the pension system is social welfare for retirees and the movement from defined benefits to defined contribution may reduce the undesired risks of social welfare (Koutronas & Yew, 2017). Surprisingly, most of reformation of pension funds basically concentrated on cutting pension expenditures rather than improving funding or investment mechanisms (Hauner, Leigh, & Skaarup, 2007; Schneider, 2009). Several Asian countries do not have sufficient pension funds, as a result, most Asian governments required to take initiative to reduce financial pressures and sustainability of retirement scheme for future generation (Anderson, 2019). Moreover, pension system is formed for long term commitments to its retirees, therefore, the stability of retirement system is very essential (Nomura, 2019).

Shockingly, Health expenses are increasing at higher pace than income which affecting greater contribution rates or the limitation of reimbursements (Bradford & Burgess, 2015; Weber, 2010). Similarly, expenditure on healthcare and care for ageing population are increasing in Singapore which become serious concern for policy makers (Global-is-asian, 2018). As a result, Singapore introduced 'Medisave' scheme where citizens put a part of income for future medical services, but the savings are not sufficient due to higher expenses of health services and increased inflation (Global-is-asian, 2018).

There is an urgent necessity to improve robust and sustainable revenue retirement products in order to fulfil the demands from retirees (Knox, 2018). He also suggested for the development of a healthy and robust retirement system which may support stable and strong economy for each nation. In this consequence, early preparation for retirement required to be taken by both policy makers and individuals to respond to the changes in social, economic, demographic and political events (Koutronas & Yew, 2017). Therefore, it is highly beneficial to observe and consider the social behavior (cultural aspects) of citizens and challenges of retirees in order to develop retirement plan (Gupta & Pradhan, 2017; Nitisha, 2019; Nomura, 2019; Wang & Su, 2012).

4.3. Pension System in Malaysia

All public servants are entitled to receive pension income after retirement which designed according to defined benefit (Civil Service Pension) (Tolos et al., 2014). Employment Provident Fund (EPF) is the full-funded retirement scheme that designed by defined contribution for all individual employee in the private sector which is compulsory national saving scheme (Allianz Global Investors, 2019; Tolos et al., 2014). EPF covers all private sector employees

and non-pensionable public sector employees and also allow participants to withdraw some benefits for some specific segments such as education, house loans and health expenses (Allianz Global Investors, 2019; Say, 2018).

The retirement system is the combination of direct public tax-funded, contributions from employees and employers (EPF & SOCSO) and private insurance scheme that used by wealthy companies Table 3 (Ahmad, Gomez, & Williams, 2017). The high dependency on tax-funded pension system put a high pressure on the system that decreases the generosity of benefits (Ahmad et al., 2017). Occupational pensions are not popular in Malaysia and it is mostly limited to large companies (Allianz Global Investors, 2019) the pension system of Malaysia is consider as stable at “c” grade (Mercer, 2018) which is comparably better than most of Asian countries except Singapore (Mercer, 2018; Say, 2018). Hence, current public servants’ pension system designed as unfunded plan (pay-as-you-go) whereas it is distributed straight from public federal budget (Economic Outlook, 2019).

Table-3. Pension design in Malaysia.

Components	Pension Management Entities	Type of Pension Scheme
Pensionable public sector employees	Public Service Department Kumpulan Wang Persaraan (Diperbadankan)	Defined benefits
Armed forces	Armed Forces Fund Board	Non pensionable compulsory contribution Pensionable compulsory contribution Voluntary contribution
Private and non-pensionable public sector employees	Employees Provident Fund (EPF)	Defined mandatory
Self-employed and individuals without fixed monthly income	Employees Provident Fund (EPF)	Voluntary contribution scheme

Source: Kumpulan Wang Persaraan (KWAP) (2019).

4.4. Issues and Challenges of Malaysian Pension

Malaysia is experiencing the growth of ageing population similar to every country (Allianz Global Investors, 2019; Zahid, 2019). And the growth of elderly population enables the enhancement of public pension payment which results in higher public expenditure Figure 1 (Economic Outlook, 2019). Hence, pension and retirement charges nearly tripled in between 2007-2017 in Malaysia from RM8.25 billion to RM21.76 billion and estimated to be tripled from 2017 to 2030 (Yeap & Alima, 2017). Shockingly, payments for public servants increased along with national debt of one trillion Ringgit on public finances (Theedgemarkets.com, 2019).

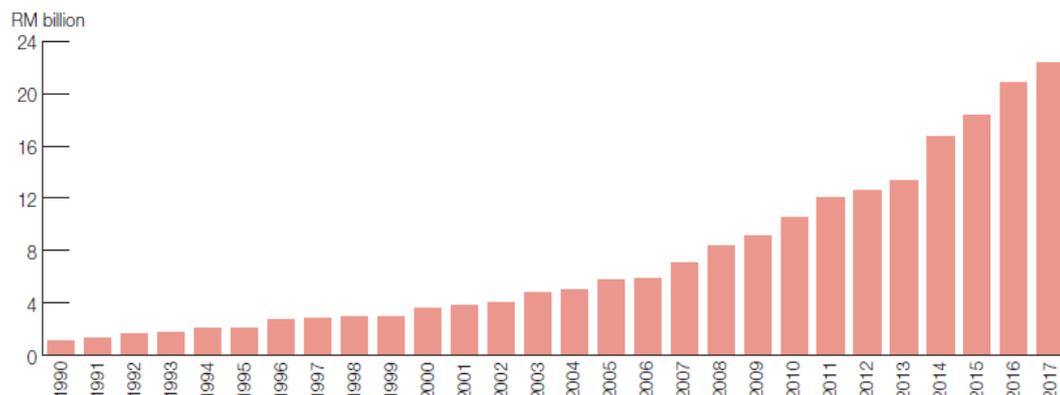


Figure-1. Public expenditure for pension.

Source: Ministry of Finance (2019).

In this consequence, present retirement scheme will affect financial shock to the public fiscal system over long term (Malaysian Institute of Economic Research (MIER), 2019). Tun Dr. Mahathir Mohamad (Prime Minister of Malaysia) stated in Kyoto on 7th September, 2019,

“We are paying pension to wives and children (of deceased retired civil servants). We want to continue (paying pensions), but we have to find a way that the government can afford and government officers don’t lose out” (Theedgemarkets.com, 2019).

Notwithstanding, sustainability score of Malaysian pension system reduced to 60.5 from 61.2 based on the index (Mercer, 2018). Hash Piperdy (CEO, Mercer Malaysia) mentioned that Malaysian pension system is having long term sustainability risk with insufficient pension savings for Employees’ Provident Fund (Say, 2018). Surprisingly, Hussein (2016) stated that EPF are having adequacy and coverage issue, not sustainability issue. In fact, the fund (100% annual pension obligation) in between 2017 and 2027 may sustain payments only for another seven years after that (Yeap & Alima, 2017). According to EPF report, there is only 18 percent of participants have minimum savings target of maintaining retirement life for 20 years in their account by the age of 55 (Hussein, 2016; Say, 2018). Furthermore, living costs have increased due to inflation which causing shocks among retirees (Theedgemarkets.com, 2019). Additionally, retirees are not only facing financial issues but also healthcare, mobility and family supports Ahmad et al. (2017). As a result, the growth of ageing population will drain the healthcare systems along with putting pressure on pension scheme (Zahid, 2019).

4.5. Necessity for the Reformation of Malaysian Retirement Plan

Although, Malaysia has stable pension system but it requires reformation to respond towards growth of retirees that expected to be five million by 2030 and ten million by 2050 Figure 2.

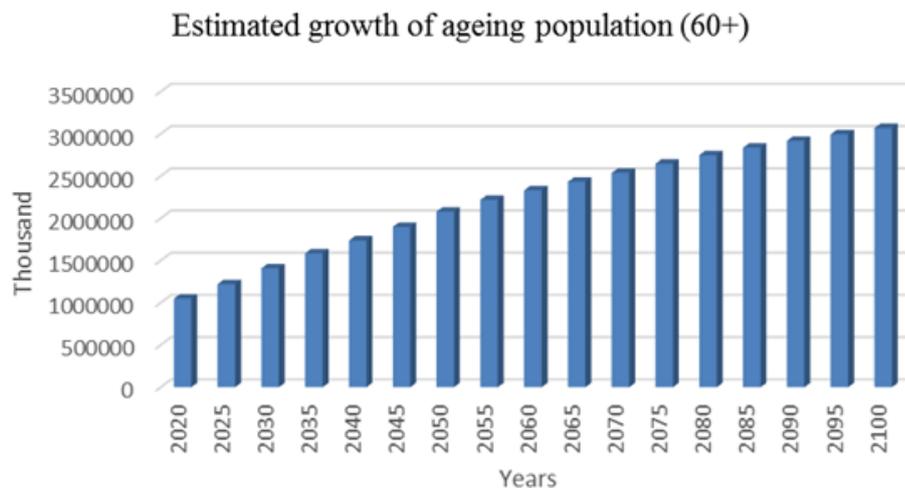


Figure-2. Estimated growth of retirees.

Source: UN (2019).

Balqais Yusoff (Head, EPF Strategy Management Department) stated that 78% of the contributors towards the Employees Provident Fund (EPF) in Malaysia did not even have enough money to live a simple lifestyle in retirement (Bernama, 2016). This is supported by the Employee Provident Fund (EPF) that more than half of the Malaysian have no financial assets (financial asset is an intangible asset where value is derived from a contractual claim, such as bank deposits, bonds and stocks) (Employees’ Provident Fund (EPF), 2015). Therefore, one should start saving at a young age and learn to manage financial matters to prepare for the retirement period. In addition, the 4th Malaysian Population and Family Study by the National Population and Family Development Board which was matched with the result of the population and housing census in 2010 found that about 23%, or 538,000 of the 2.4 million senior citizens in Malaysia suffered from the ‘empty nest’ syndrome. This number is believed to increase further in the future if no awareness and preparation done by the Malaysian household.

As a result, policy makers should take steps to reform retirement scheme to secured future financial situation ahead of ageing population (Economic Outlook, 2019; Tolos et al., 2014). According to mercer, Malaysian

retirement system can be improved through taking several steps, such as; a) enhancing support level for poor elderly individuals, b) increasing household savings and decreasing household debt, c) retirement benefit should be taken as income stream, d) and expanding retirement age as life expectancy is growing (Say, 2018). Therefore, retirement scheme for public servants might be developed and reformed through adopting defined contribution system, for new public servants recruitment (Economic Outlook, 2019). Thus, the purpose of scheme should focus on the self-reliance of individuals rather than dependency on tax-funded system (Ahmad et al., 2017). Subsequently, Hussein (2016) suggested to extend retirement age and also transform defined benefit to compulsory defined contribution system for public servants which will ensure sustainable financial condition. Similarly, Ahmad et al. (2017) suggested several improvements for current pension system such as; enhance the retirement age to 65 years old, limit the number of public sector employees, provide more tax-incentives to private sector when they offer support for employees' savings, reduce the household debt through little tax inclusion and offer incentives for savings such as provide tax exemption.

5. CONCLUSION

The growth of global population exposed significant challenges for global policy makers and leaders to properly apportioned capital and limited resources (Zahid, 2019). Dutch pension system has universal system that paid for through contributions and related to the minutest wage and indexed for inflation, also an occupational pension funded from salaries and employer contributions and a voluntary pension tier (Hussein, 2016). Indeed, most of the OECD countries are operating defined benefit schemes together with multiple schemes, even though defined contribution and mixed schemes have become very popular (Hussein, 2016). The benefit of having a separate branded fund is it increases the link and visibility.

While the existing pension infrastructure has solid foundations, there are gaps to address to ensure the longer-term sustainability of the system moving forward. In this context, Malaysian employers can do more to help their employees prepare for retirement and play a larger role in building up a more sustainable pension program. It is about the financial wellness of staff - looking after employees' financial health by providing financial education, guidance and more access to investment and savings products, among others.

The most important issues and challenges of the retirement and pension plan all around the world is not only to have a good and effective one but also to ensure that the system and plan is able to sustain for a very long time. Therefore there should be a lot of effort to be taken not only by the government but also the people and even the old aged themselves. This is the responsibilities of all the parties involved to make sure that the retirement system which the country should have can provide for the protection of all the retirees or old age and it has to be sustainable so that the protection will be able to cover those people for their whole lifetime.

Funding: The research team would like to acknowledge Ministry of Higher Education and International Islamic University for research grant under FRGS 19-016-0624.

Competing Interests: The authors declare that they have no competing interests.

Acknowledgement: All authors contributed equally to the conception and design of the study.

REFERENCES

- Ahmad, N. A. B., Gomez, E. T., & Williams, G. (2017). Policy ideas for a social market economy in Malaysia – policy brief. Kuala Lumpur. Retrieved from: www.responsibleacademy.com.
- Alaudin, R. I., Ismail, N., & Isa, Z. (2017). Determinants of retirement wealth adequacy: A case study in Malaysia. *Institutions and Economics*, 9(1), 81–98.
- Alaudin, R. I., Ismail, N., & Isa, Z. (2016). Projection of retirement adequacy using wealth-need ratio: Optimistic and pessimistic scenarios. *International Journal of Social Science and Humanity*, 6(5), 332-335. Available at: <https://doi.org/10.7763/ijssh.2016.v6.667>.

- Allianz Global Investors. (2019). Pension system in Malaysia. Retrieved from: <https://www.pensionfundsonline.co.uk/content/country-profiles/malaysia/102>.
- Andersen, J. G. (2016). The Danish Pension system. Retrieved from: https://www.dps.aau.dk/digitalAssets/266/266013_goul-andersen-danish-pension-system.short-paper.2016.pdf.
- Anderson, D. (2019). The financial burden of retirement is a global problem—but Asia is uniquely Vulnerable. Brink. Retrieved from: <https://www.brinknews.com/the-financial-burden-of-retirement-is-a-global-problem-but-asia-is-uniquely-vulnerable/>.
- Baird, R. W. (2016). Understanding the key risks in retirement: Planning for these risks can improve the odds of a successful retirement. Wisconsin. Retrieved from: www.rwbaird.com.
- Benartzi, S., & Thaler, R. H. (2007). Heuristics and biases in retirement savings behavior. *Journal of Economic Perspectives*, 21(3), 81–104. Available at: <https://doi.org/10.1257/jep.21.3.81>.
- Bernama. (2016). Only 22 per cent EPF contributors have sufficient savings for retirement. New Straits Times. Retrieved from: <https://www.nst.com.my/news/2016/05/145726/only-22-cent-epf-contributors-have-sufficient-savings-retirement>.
- Bradford, W. D., & Burgess, J. F. (2015). Chapter 4 individual time preferences and health behaviors, with an application to health insurance. *Current Issues in Health Economics*, 290, 63–93. Available at: [https://doi.org/10.1108/S0573-8555\(2010\)0000290007](https://doi.org/10.1108/S0573-8555(2010)0000290007).
- Brooks, S. M. (2009). *Social protection and the market in Latin America*. In *Social Protection and the Market in Latin America: The Transformation of Social Security Institutions* (1st ed.). Cambridge: Cambridge University Press.
- Butt, A., Donald, M. S., Foster, F. D., Thorp, S., & Warren, G. J. (2018). One size fits all? Tailoring retirement plan defaults. *Journal of Economic Behavior and Organization*, 145, 546–566. Available at: <https://doi.org/10.1016/j.jebo.2017.11.022>.
- CommonWealth. (2017). The evolution of the canadian pension model practical lessons for building world-class pension organizations.
- Cowler, G. (2019). Pensions - Five biggest challenges facing DB pension schemes. Actuarial Post. Retrieved from: <http://www.actuarialpost.co.uk/article/five-biggest-challenges-facing-db-pension-schemes-12843.htm>.
- Deraspe, R. (2016). Financial Challenges for Canadian Defined Benefit Pension Plans (No. 2016-22- E). Ottawa.
- Drahokoupil, J., & Domonkos, S. (2012). Averting the funding-gap crisis: East European pension reforms since 2008. *Global Social Policy*, 12(3), 283–299. Available at: <https://doi.org/10.1177/1468018112455653>.
- Ebbinghaus, B. (2015). The privatization and marketization of pensions in Europe: A double transformation facing the crisis. *European Policy Analysis*, 1(1), 56-73. Available at: <https://doi.org/10.18278/epa.1.1.5>.
- Economic Outlook. (2019). Outlook and policy (Annual report 2018), Malaysia. Kuala Lumpur.
- Employees' Provident Fund (EPF). (2015). *Empowering our retirement (Facts at a glance)*. Kuala Lumpur: Employees' Provident Fund.
- European Trade Union Institute. (2017). Denmark: pension reform. Retrieved from: <https://www.etui.org/ReformsWatch/Denmark/Denmark-pension-reform>. [Accessed September 30, 2019].
- Global-is-asian. (2018). Rapid ageing exerts pressure on Singapore's pension system. National University of Singapore. 1–3. Retrieved from: <https://lkyspp.nus.edu.sg/gia/article/rapid-ageing-exerts-pressure-on-singapore-s-pension-system>.
- Grech, A. G. (2012). Evaluating the possible impact of pension reforms on future living standards in Europe (No. CASE/161). London.
- Grech, A. G. (2013). How best to measure pension adequacy (No. CASE/172). London. Retrieved from: <http://sticerd.lse.ac.uk/case>.
- Gupta, R., & Pradhan, S. (2017). Evaluating financial planning advertisements for retirement in India: A content analysis. *The Qualitative Report*, 22(7), 1792-1808.
- Hauner, D., Leigh, D., & Skaarup, M. (2007). Ensuring fiscal sustainability in G-7 countries (IMF Working papers No. WP/07/187).

- Hohnerlein, E. M. (2019). Pension indexation for retirees revisited—Normative patterns and legal standards. *Global Social Policy*, 19(3), 246-265. Available at: <https://doi.org/10.1177/1468018119842028>.
- Holzmann, R. (2012). Global pension systems and their reform: Worldwide drivers, trends, and challenges. *International Social Security Review*, 1–25. Available at: <https://doi.org/10.1111/issr.12007>.
- Holzmann, R., Hinz, R., Gersdorff, H., Von, G. I., Impavido, G., Musalem, A. R., & Subbarao, K. (2005). Old age income support in the 21st century: An international perspective on Pension systems and reform (HD7105.3.H65 No. 2005043404). Washington DC.
- Holzmann, R., Paul, R. H., & Dorfman, M. (2008). Pension systems and reform conceptual framework (Social Protection & Labor No. 46175). Washington DC.
- Hur, M. H. (2010). A comparative study of the relationship between pension plans and individual savings in Asian countries from an institutional point of view. *International Journal of Social Welfare*, 19(4), 379-389. Available at: <https://doi.org/10.1111/j.1468-2397.2009.00685.x>.
- Hussein, N. (2016). Challenges of a pension system. The Star Online. 1–2. Retrieved from: <https://www.thestar.com.my/news/nation/2016/2010/2024/challenges-of-a-pension-system-if-a-countrys-population-is-ageing-pension-entitlements-have-to-be-bo>.
- Jensen, S. E. H. (2018). *Challenges and learning points in the Danish pension system*. Paper presented at the Tela-ETLA Seminar on “Intergenerational Risk-Sharing – “from Early Age to Old Age.
- Klitgard, P. (2017). Danish Government raises retirement age as benefits system continues to prosper. World Finance. *World Finance*, 1–2. Retrieved from: <https://www.worldfinance.com/wealth-management/danish-government-raises-retirement-age-as-benefits-system-continues-to-prosper>.
- Knox, D. (2018). Many countries have unsustainable pension systems. These reforms can help. Brink: The Edge of Risk. Retrieved from: <https://www.brinknews.com/many-countries-have-unsustainable-pension-systems-these-reforms-can-help/>.
- Koutronas, E., & Yew, S.-Y. (2017). Considerations in pension reforms: A review of the challenges to sustainability and distributive impartiality. *Malaysian Journal of Economic Studies*, 54(1), 159-177. Available at: <https://doi.org/10.22452/mjes.vol54no1.8>.
- Kumpulan Wang Persaraan (KWP). (2019). Malaysia provident/pension fund value chain. Retrieved from: <https://www.kwap.gov.my/EN/Aboutkwap/Background/pages/pensionfundvaluechain.aspx>.
- Malaysian Institute of Economic Research (MIER). (2019). Outlook and policy. Kuala Lumpur. Retrieved from: <https://www.mier.org.my/>.
- Mercer. (2018). Melbourne mercer global pension index 2018. Melbourne. Retrieved from: www.mercer.com.au.
- Milligan, K. (2018). Canada’s pension problem won’t be solved by the ORPP. The Globe and Mail. Retrieved from: <https://www.theglobeandmail.com/report-on-business/rob-commentary/canadas-pension-problem-wont-be-fixed-by-the-orpp/article25960069/>.
- Ministry of Finance. (2019). Economic management and prospects. In Economic Outlook 2019. Kuala Lumpur. Retrieved from: [https://doi.org/10.1016/0921-4526\(94\)90056-6](https://doi.org/10.1016/0921-4526(94)90056-6).
- Modigliani, F., & Muralidhar, A. (2004). *Rethinking pension reform*. Cambridge: Cambridge University Press.
- Nippon. (2019). Japan’s Pension Woes. Nippon.Com. 1–3. Retrieved from: <https://www.nippon.com/en/japan-data/h00470/japan-s-pension-woes.html>.
- Nitisha. (2019). 5 factors that affect the economic growth of a country. Retrieved from: <http://www.economicdiscussion.net/economic-growth/5-factors-that-affect-the-economic-growth-of-a-country/4199>. [Accessed January 3, 2019].
- Nomura, A. (2019). Japan’s pension system: Challenges and implications. *Journal of Asian Capital Markets*, 3(2), 4–9.
- Orenstein, M. A. (2011). Pension privatization in crisis: Death or rebirth of a global policy trend? *International Social Security Review*, 64(3), 65-80. Available at: <https://doi.org/10.1111/j.1468-246x.2011.01403.x>.

- Organization for Economic Cooperation and Development (OECD). (2017). Report on the implementation of the OECD gender recommendations - Some Progress on Gender Equality but Much Left to Do. Paris. Retrieved from: www.oecd.org.
- Ostaszewski, K. (2012). The four pillars: Looking at the last 25 years and the next 25 years. *The Four Pillars Newsletter: Research on Insurance, Retirement and Social Security*, 50(3), 1–5.
- Pascucci, A., Vázquez Cendón, C., & Calvo-Garrido, M. D. C. (2012). Mathematical analysis and numerical methods for pricing pension plans allowing early retirement. *Ssrn*, 1–19. Available at: <https://doi.org/10.2139/ssrn.1998841>.
- Ponds, E., Severinson, C., & Yermo, J. (2011). Funding in public sector pension plans-international evidence: National Bureau of Economic Research.
- Poterba, J. M., Venti, S. F., & Wise, D. A. (2009). The decline of defined benefit retirement plans and asset flows. *Social Security Policy in a Changing Environment*, 333–339. Available at: <https://doi.org/10.3386/w12834>.
- Price Waterhouse Coopers (PWC). (2017). Pension 2025: Scenarios for the future of the pension sector. Amsterdam. Retrieved from: www.pwc.com/structure.
- Rappaport, A. (2017). Understanding and managing post-retirement risks. Society of Actuaries. Retrieved from: <https://www.soa.org/resources/research-reports/2017/post-retirement-needs-decisions/>.
- Say, T. L. (2018). Are retirement schemes sufficient for Malaysians? The Star Online. 14. Retrieved from: <https://www.thestar.com.my/business/business-news/2018/2010/2027/are-retirement-schemes-sufficient-for-malaysians>.
- Schneider, O. (2009). Reforming pensions in Europe: Economic fundamentals and political factors (No. CESifo Working Paper No. 2572). Prague.
- Schwarz, A. M. (2006). Pension system reforms (SP Discussion Paper No. 0608). Washington DC.
- Schwarz, A. M., Arias, O. S., Zvinieni, A., Rudolph, H. P., Eckardt, S., Koettl, J., & Abels, M. (2014). The inverting pyramid: Pension systems facing demographic challenges in Europe and Central Asia (Europe and Central Asia reports). Washington DC.
- Schwarz, A. M., & Demircuc-Kunt, A. (1999). Taking stock of pension reforms around the world. Social Protection Discussion Paper Series (No. 9917).
- Sen, N. J. (2019). The Big Read: The dreaded 'R' word — why Singaporeans need to start thinking seriously about retirement. Today. 1–3. Retrieved from: <https://www.todayonline.com/big-read/big-read-dreaded-r-word-why-singaporeans-need-start-thinking-seriously-about-retirement>.
- Sinha, R. (2018). The World Bank's five pillar framework. In N. Fujita (Ed.), *Pension Finance and Management* (pp. 127–128). Toronto: eCampusOntario.
- Theedgemarkets.com. (2019). How the public pension burden could bankrupt the country. Edge Weekly. Retrieved from: <https://www.theedgemarkets.com/article/how-public-pension-burden-could-bankrupt-country>.
- Tolos, H., Wang, P., Zhang, M., & Shand, R. (2014). Retirement systems and pension reform: A Malaysian perspective. *International Labour Review*, 153(3), 489–502. Available at: <https://doi.org/10.1111/j.1564-913x.2014.00211.x>.
- UN. (2019). Population dynamics. Department of Economic and Social Affairs, United Nations. Retrieved from <https://population.un.org/wpp/Download/Probabilistic/Population/>.
- Wang, G., & Su, X. (2012). The life security system for Chinese families in compliance with the family planning policy. *Journal of Risk Finance*, 13(3), 240–261. Available at: <https://doi.org/10.1108/15265941211229253>.
- Weber, A. (2010). Financing social health insurance: Challenges and opportunities. In S. W. Handayani (Ed.), *Enhancing social protection in Asia and the Pacific: The proceedings of the regional workshop* (pp. 249–265). Mandaluyong City, Philippines: Asian Development Bank.
- World Economic Forum (WEF). (2013). *Developing future social protection systems retirement income*. Geneva: World Economic Forum.
- World Economic Forum (WEF). (2017). Case studies in retirement system reform (White Paper No. REF 040417). Geneva. Retrieved from: www.weforum.org.

- Yeap, C., & Alima, K. H. (2017). Cover Story: A growing pension burden. *The Edge Malaysia*. 1–4. Retrieved from: <https://www.theedgemarkets.com/article/cover-story-growing-pension-burden>.
- Yuh, Y., Hanna, S., & Montalto, C. P. (1998). Mean and pessimistic projections of retirement adequacy. *Financial Services Review*, 7(3), 175-193. Available at: [https://doi.org/10.1016/s1057-0810\(99\)00009-8](https://doi.org/10.1016/s1057-0810(99)00009-8).
- Zahid, A. Z. M. (2019). Leading in a disruptive world – revolutionising takaful (Assistant Governor Keynote Address at the Takaful Rendezvous 2019). Retrieved from: http://www.bnm.gov.my/index.php?ch=en_speech&pg=en_speech&ac=841&lang=en.

Views and opinions expressed in this article are the views and opinions of the author(s), International Journal of Asian Social Science shall not be responsible or answerable for any loss, damage or liability etc. caused in relation to/arising out of the use of the content.