

## **Policy Response on Sustained Thailand Ageing Population Growth**

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### ***Abstract***

*This policy article points out in some urgent problem in Thailand that will consider to discuss as its in labor forces continue to ageing. Human capital management will have to be adjusted to make sure that capacity levels of older workers are potentially power and enables to have experiences on their skills. In Thailand, policy response is being participate actively and political declared to protect older workers from age discrimination, and provide fund to support for those no longer able to find and maintain employment. Recently in Thailand, where the numbers of ageing citizens exceed those of its teenagers population, the policy tools intend to support older employees are often circumvented in practice, and create awareness by providing social activities for older persons. The demographic reality on Thailand's population is rapidly ageing as the raise on rate of older persons who are 60 years and above which this rate growing similarity of human capital across international level. Combining with teenage labor, ageing may replace gender as a key factor in achievement of workforce diversity. Hence, government of Thailand should set the framework in practice to guarantee that ageing is set to become both a political and industrial issue within this twentieth century.*

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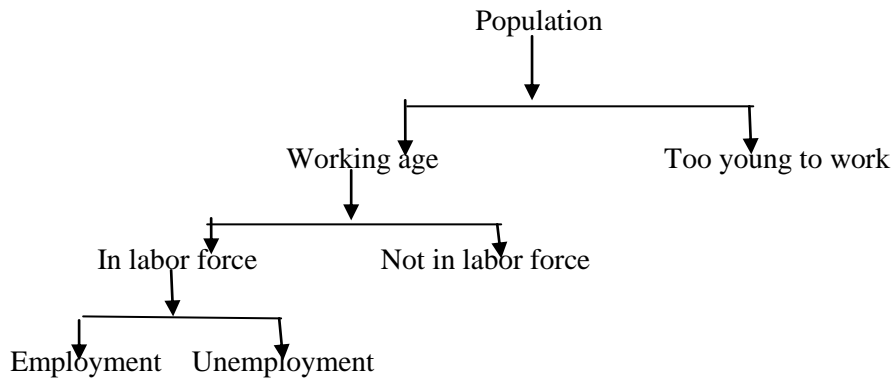
**Key words:** policy response, sustained aging, older workers demographic, human capital, workforce diversity

**JEL Classification:** J 14, J 24, O 23

## **1. Introduction**

Economic academic term particular “Macroeconomics”, it involves with the function, habit and decision making of an economy as a whole. All across the policy, macroeconomic policy always uses through two types of instrument that are fiscal by Government and monetary by Central Bank. Both types of policy used to stabilize economy by pushing up economy over business cycle (Sheffrin, 2003) via the level of gross domestic products (GDP) consistent with full potential GDP. Especially, economics and political science, fiscal policy is used via government revenue collecting on taxes and it spending. In Keynesian Economics, this policy influences aggregate demand and level of economic performance. These performance can also affect other macroeconomic variables such as savings and investment including the distribution of income, employment and unemployment, price level. Moreover, fiscal policy is often managed under laws of a legislature. There are two main types. Those are expansionary fiscal policy and contractionary fiscal policy. The policy effort wants to success in economic objectives which those are price stability, full employment, and economic growth. Regarding to those objectives which one is emphasizing on “Economic Growth”, this word affects an increase in market value of goods and services produced within the country overtime. This measurement is traditionally use as the percentage rate of increasing in real gross domestic product or RGDP (IMF, 2012). More important, an increase in GDP growth caused by increasing in capital population is called “Extensive Growth” (Bjork, 1999). Economic growth in global affects growth through the changes in labor force participation rate under subset of working age population. The restructure from agricultural economy to manufacturing raises size of growth in output per hour, while it decreases the sector size as prices drop and dump in employment relative to other sectors.

Now looking back to “Asia” that is the largest and the most population in this Earth because of the high growth rate during this century. The demographic changes determinants influence growth by changing employment to population ratio and labor force participation rate because main source of aggregate demand in working age population is on spending patterns (Bjork, 1999). This is an important transition factor affecting to economic growth in which the birth rates decline and the average age of population increases. Women with one or two kids and better entry in labor market tend to make labor force in good percentages. The more percentage of women getting in labor fore can contribute to economic growth as called “Baby Boomers into work force” (Bjork, 1999). Up or down movements of GDP is around long-term growth trend be usually measured by looking at growth rate of real gross domestic product or RGDP in term of per person used. This aspect links with the person in country that can check by population framework.



Source: Self Development (2014).

Regarding to population framework, it shows that when country needs to see growth in its economy, the country has to concentrate on working age population group which it is always shifting as demographics of a region change. The large changes have potential to significantly impact to economy as a whole. For example, if it shows a relative less working age population comparing to teenagers and retired persons, the economy will depend on a less population to bring about revenues while a large number of population of teenagers and retired persons depend on social programs.

In recent year, many Asia countries face a raise rapidly ageing labor force particular Japan and Thailand. They have yet to confront the full implications of an ageing population and its potential impact on workforce management. The population estimates by 4.3 billion which it covers around 60% of the present human population in the world. However, only Japan and Thailand have the lower rate in average relative annual growth only -0.15 (Statistics Bureau Japan, 2014) and 0.76 (National Statistical Office, 2014) respectively. In Japan, dramatically changes in human capital policies are presenting. Japanese firms take action to the raise aging of their population. The owners are rethinking on lifetime working, older workers based wages, retirement policies and opportunity for older working age population (Clark & Ogawa, 1996). This implies Japan expected numbers in older working group will be greater than its teenager population. On older workers articles such as Li (1998) mentions that statistics for Asia's more dynamic countries, which statistics show an increasing numbers of people over 60. Moreover, Li (1998) also states at a youthful, even though increasingly ageing population, coupled with urbanization and good in economic wealth leading to higher disposable incomes, has resulted in significant changes in structure to be the newly industrialized nations. The implications impact areas of their lives; for example, increasing pressures on family situations, health systems, social security arrangements. Besides, Li (1998) also cites Rosario (1994) who estimates that over 16 percent of population in Hong Kong has aged over 60 by 2007; Woon (1994) who projects that 11

percent of people over 60 in Singapore are by 2000. Including Yoon & Eun (1995) who report nine percent over 60 in South Korea are in 1995.

In Thailand, Walsh (2011) states that Thai population starts to age which it reflexes the problem of elderly unemployment and poverty be intensified because Thai labor force market shows a very unfair on labor rights such as increasing salary based on age not on experiences. Moreover, the level of wages are managed by educational qualification which those determinants have pushed older workers away or less acceptance in professional and non-professional sector of labor force market. It especially affects when Thai economy be poor making more suffering to older workers and less able to move the job easily. One outcome will be that the real disposable income of retired workers will be fall relative to working age population. Like this ageing societies, it has concentrated on the raise in tax burden created by the want to support an increasing on proportion of elderly retirees.

Objectives on this article paper are examining the outcomes of population ageing for labor force operating in Thailand by policy response via theoretical approach and discussing future challenges for Thailand organizations.

The paper begins with introductory by providing idea on background information. After that it is followed by a part of literature review to identify the previous article related on ageing. In addition, theoretical related are mentioned to reports on affecting older workers in the workplace. Furthermore, paper discuss to answer on those objectives and ending with the conclusion and implication provided.

## **2. Literature Review**

World Employment Report (1998-1999) mentioned that during the phase of business cycle called economic recession and downsizing, large numbers, especially older workers, are forced to reconsider on program called “Early Retirement”. The 1997, it has been called “Financial Crisis”. Samorodove (1999) shows that whenever economic conditions deteriorate the vulnerability of older working age populations to losing their jobs increasing significantly. Older workers in working age population are being the group that always lose their employments as firm restructuring shifted employment opportunities to lower cost locations, and technological in advance increased its production in term of economic growth.

As an outcome of the decline in fertility and mortality during the last 30 years has lowered birth rate in population growth but faces the raise in growing population of older people instead. The forecast shows that around year 2020 the number of older people will be greater than the teenagers. The proportion of working old age in total population will be reached to 14 percent in 2015 continuing to 19.8 percent in 2025 and nearly 30 percent by 2050 (Institute for Population and Social Research, 2006; United Nations, 2002). In this century, there are older persons who need to be supported as the age structure has shifted

more and more towards to the higher age groups. This makes the average less and less in group of teenage persons on working age population to support a raise in number of older persons. Trying to check in labor force group particularly in the group which is called employment. The opportunities throughout Thailand are for those with appropriate skills. The huge flow-in of multinational firms distributed to improvement of human resource management policies that realized in growing diversity of the global workforce. Sparrow, Schuler & Jackson (2000) mention on this view that it aims to make sure on the equity in comparison of employees across regions, maximize the benefits of diversity and reduce the costs. Furthermore, Moss & Dretler (2000) support that recruitment, performance appraisal, and work organization are modified to fit the demands of the setting in which they were being applied. Whitman (1999) concludes that in particular many practices which challenged existing Asian practices of paternalism, family protection, lifetime employment, group harmony and reciprocal loyalty are expanded to incorporate Western practices that stressed individual achievement, clear performance standards and evaluation.

In Thailand, implication on ageing index refers that a composite demographic ratio such as average age counting as the percentage between old age population in Thailand and young population in Thailand identifying the changing proportion of older population relates to the population of younger age (aged less than 15 years) raising to 140 by 2050. Such volatiles will imply that a reducing in income per capita, savings and investment of older workers will affect to the number of working age teenagers and adults contributing to support of population aged 65 years or more be increased. In the year 1997, many families in Thailand, who had been the traditional structure for taking care of older relatives, had been themselves facing economic rough and less able to assist. The unfortunate situation of unexpected redundant older workers has raised as a political issue and governments in Thailand set up committees of inquiry to investigate the situation and make recommendations. Lucas (1999) indicates that other Asian such as Singapore, Malaysia and Hong Kong are only now beginning to establish retirement funds to help underwrite the cost of servicing a growing older population and that Indonesia and Thailand are still planning to do so.

With the raise proportion of Thais expected to grasp age 80 years and on average life expectancy more years beyond that, the proportion of older in population is expected to be an exponential growth. This means to expand duration of social security and welfare payments including an increasing want for care of older disability. The results of ageing are variety both in economic and social aspects. The social outcome is on family structures, relationship between generations and health. These outcomes cause higher cost to society of supporting elderly population. The financial capital burden borne by economically performance population increases implying a substantial rise in public spending (United Nations, 1992).

Long life means increasing in health costs such as cost of caring for handicap or illness. The greater the unemployment on older workers, the worse off the pension schemes in financial terms is. The pensions and health care become the gigantic budget for government distribution.

What is ambiguous be whether older workers have borne more than their representative share of these downsizing initiatives, as has been the case in other countries. In China, fewer older people speak foreign language and many have only base educational preparation for the work environment and working within a planned economic structure which encouraged managers to be risk averse. Unlike the new generation, Martinsons (1999) says they become prime targets as the skill requirements changed. With the severe shortage of skilled labor, especially in level of senior management or technical fields, it is unlikely that those with lack of skills and broad experience would become unemployed. Though increasing trends toward localization are apparent, McComb (1999) forecasts it is likely that middle level positions will continue to be staffed by expatriates within the next 10 years. Many older people are vulnerable because their skills are no longer relevant and retraining has not been available.

Throughout 1960s, 1970s and early 1980s Singapore's economic performance has showed outstanding growth with GDP rising on average eight percent each year. Employment for all including older workers is high. But it is suddenly changed in the mid-1980s with decreasing in the direct foreign investment leading many companies to reduce their labor force and thus to rise in levels of unemployment. Seniority pay program is given in many organizations. They now look at the older workers being as comparatively expensive cost, and this group will be target in downsizing. Their vulnerability is remarkably in retirement funding once they had reached 55 years. Older workers burn of economic downturn with their participation rates dropping significantly and those who become an unemployment by taking long term to secure alternative work.

Singapore government has begun to be concerned on number of older persons no longer contributing to labor market by comparing situation with Hong Kong, Korea and Taiwan where those countries the participation rates of older are higher. Up to this point, it creates more concerning on older workers population. The Manpower Department has made recommendations for future. Moreover, many researches find that in 1998 Singapore's population contained 14 percent of individuals over 55 years. But, only 65 percent of males are in the workforce and 22 percent of females. Majority of older workers are less well educated than younger counterparts and thus more vulnerable to job loss in early retirement easily. A year 1996 survey by Heywood, Ho & Wei (1999) indicate that older workers are protected, but they found it difficult to obtain re-employment if they became unemployed.

So, the ageing of the population has a gigantic labor market implication. The numbers and proportion of the elderly will have increased substantially in developed, transition, and most coming through Thailand.

### **3. Methodology**

#### **3.1 Research Questions**

1. Does the outcome of population ageing for labor force operate in Thailand by policy response?
2. What should be the future challenges for Thailand organizations?

#### **3.2 Modeling**

Paper uses theoretical related to be made economically in active through various macroeconomic models noticed with ageing. Those are supply and demand in labor market; business cycle; employment and unemployment and policy response as followed:

##### **3.2.1 Supply and Demand in Labor Market**

Actually labor supply curve shows relationship between number of workers (an hour) who are willingness to work and have capacity to work at different real wage rate. This curve has a directly relationship. Besides, labor demand curve shows relationship between number of workers (an hour) who are willingness to work and have capacity to hire at different real wage rate. This one, firms will hire a worker only if the marginal revenue (MR) it earns from producing the products covers the marginal cost (MC). This demand curve has inversely relationship because of the law of diminishing returns. Any changes in amount of product per worker can invest or price of that product will shift labor demand curve. It means there should be more productive in labor himself via training or technological in advance.

The basic model used to examine the relationship of the labor force activity of the older worker to that of each policy response is of the form:

$$Y = \beta_0 + \beta_1 \text{Older} + \beta_2 X + \gamma_t + \delta \text{Economic Downturn} + \varepsilon_t \quad (1)$$

The dependent variable, Y, is the labor market measure of interest, such as Social welfare assistance of 300 Baht per month, in each state of the world and each year. The key independent variable is the state-year employment rate of the older persons (Older). The vector X includes a set of state-specific, explanatory variables, including differences in labor market conditions.  $\gamma_t$  is a set of indicator variables to control for Thailand economic changes in any given year. Additionally, the equation includes a variable for capturing the impact of economic downturn on labor supply.

##### **3.2.2 Business Cycle**

It expresses in fluctuation on economic performance over a period of time. It is defined by two phases those are expansion and recession. During expansions, economy is growing in real term making increases in employment, in production, in sales and personal disposable



incomes. Contrasting to recessions, the economy is contracting. So, time-varying in business conditions including unemployment affect the exit timing and choice of people aged 45 – 59 years old route out of labor market easily (Martin and Castello, 2009). Furthermore, Hairault, Langot & Sopraseuth (2014) find that flow job for older workers are great responsiveness to business cycle than teenagers and this is supported by Mortensen and Pissarides (1994) model explaining that older workers' shorter work-life expectancy endogenously reduces their outside options and brings their real wage rate to be less sensitive to the business cycle.

So, the model for life expectancy is given by

$$z = \int_0^{\infty} t(\lambda e^{-\lambda t}) dt = \frac{1}{\lambda}. \quad (2)$$

Paper assumes that at age  $t$ , older worker gets instantaneous utility  $[u(c(t)) - \chi_t v(z, t)]$ , where  $u(c(t))$  is very happy;  $v(z, t)$  is disutility of working at age  $t$  given life expectancy  $z$ . Moreover, it assumes to be increasing in  $t$ ; and  $\chi$  is an indicator function that takes the value 1 when working and 0 when retired. An outstanding character of model is disutility of labor schedule,  $v(z, t)$  that increases with age  $t$  and promotes retirement as company policy action.

In addition, it believes that disutility of working at age  $t$  depends on life expectancy,  $z$ . If this disutility is independent of  $z$ , it implies that increases in life expectancy are not corresponding to health improvements, and aging creates a huge unit of older in poor health, a situation that is at odds with the evidence. If health status at each age improves consistently with life expectancy, then disutility of labor,  $v(z, t)$ , is homogeneous of degree zero in life expectancy and age. Paper assumes an explicit functional form as follows:

$$v(\alpha z, \alpha t) = v(z, t) \quad (3)$$

This is to say by assuming that, health status and disutility of working at age younger who has a life expectancy of 60 is the same as health status and disutility of working at age 60 who has a life expectancy of 80. That can be shown lifetime expected utility given by

$$U = \int_0^{\infty} e^{-(\delta+\lambda)t} [u\{c\} - \chi v(z, t)] dt, \quad (4)$$

where expected utility is discounted at subjective rate of time preference,  $\delta$ , and is conditional on probability of being alive at time  $t$ . Lifetime expected utility is maximized subject to budget constraint

$$\frac{dW}{dt} = \chi_t w + (\lambda + r)W - c, \quad (5)$$

Where,  $W$  is state variable, wealth. If older worker works at time  $t$ , he or she earns wage  $w(t)$ , which is accumulated to wealth, while consumption,  $c(t)$ , reduces wealth. Paper



continues to assume that wealth can be moved from one time to another by savings or borrowing from financial sector. The financial sector can borrow or lend freely at the interest rate  $r$ .

### **3.3.3 Employment and Unemployment**

Older working age are realizing in too much proportion in many countries especially older women show a risk on retirement age be lower than men. The Unemployment can be used as measuring chance of older age in labor market. Now a day, in developed labor market, the ageing workers find excluded from unemployment statistics. So, the hidden unemployment can affect a growing in number of older workers dropping out of labor market. The firms' restructuring and downsizing have increased the lower older workers whose real wage rates are high wherever pay scales based on seniority rather than productivity (ILO, 1997). So, the decline in labor force participation is an outcome of choices on a higher retirement income and growth of private pensions.

The model can be concluded from above information as:

$$\Delta OE_i = \Delta LF_i - \Delta COM \text{ policy}_i + \Delta G \text{ policy}_i - \Delta OUnE_i \quad (6)$$

Where E = older employment; LF = labor force; COM policy = Company policy to older worker; G policy = Government policy to older worker; and UnE = older unemployment

### **3.4 Data**

In this study uses variables in the theoretical equation along with the policy used in Thailand to discuss and answer the objective questions.

Policy Used:

Natural retirement at age 60 or 65 is a few choice for many ageing population today. This extended time in workforce can be valuable for older worker. For increasing longevity means that retirement savings that the older workers have accumulated not much enough to support their remaining years, a circumstance made bad by economic downturns in recent period. The Royal Thai Government has been concerning on the challenge arising out of population ageing and has given increasing priority to the issues relating to older persons. In 1999, Government established the National Commission on elderly which formulated currently operational Second National Plan for Older person (2002 – 2021). This plan points on preparation for quality ageing, well-being of older persons, and social security for older persons and research to support policies and programs. These policy instruments are:

1. Social welfare assistance of 300 Baht per month to older persons having an annual income of less than 10,000 Baht.
2. Older Persons' Fund with an initial outlay of 60 million Baht.
3. The 30 Baht Universal Health Care Scheme
4. Supports to strengthen income security at old age

5. Life-long education
6. Day center for health care and promotion
7. Family assistance
8. Counseling
9. Other social activities for elderly
10. Promotion of healthy behaviors from younger ages
11. Creating awareness among community by organizing social activities for older persons

Of course, the fiscal impact of ageing now depending on the initial budget position of a country and the change in interest payments on public debt. However, this circumstance can be worse off in 20th century on forecasting.

#### **4. Results and Discussion**

To answer on “Does the outcomes of population ageing for labor force operate in Thailand by policy response?”

Considering on equation (1):  $Y = \beta_0 + \beta_1 \text{Older} + \beta_2 X + \gamma t + \delta \text{Economic Downturn} + \varepsilon_t$ , labor supply for older workers can be affected by economic, social, health and demographic factors. Furthermore, older workers are requested to improve their skills to be needed in employable labor market. The labor demand does also be affected by economic, business cycle, and social factors such as “discrimination”. The discrimination is the main factor targeting for older workers in the “golden age” of full employment when it compares with unemployment rate and natural unemployment rate. Because this golden age group are looked as “disadvantaged with respect to employment”. This can be shown as a maximum age for recruitment and age limits on entry to training. The employment rate for older workers it seems to be declined as early retirement incentive program as shown in equation (6). This relationship can be supported by IBIS Review (1996) says that early retirement is a response to the reduction in demand for labor because it is now expanding used as labor market measurement because firms’ productivity can be increased through modernizing in investment process. Besides, firms can be restructured without the cost. In another aspect, it attempts to reduce unemployment and create jobs for teenagers workers; however, this transition can create the greatest financial burden in country including it has a severe deterioration in labor market position. Because when older workers are removed out of employment, it will affect to the dropped in labor force, causing lower rate on labor force participation.

Form equation (2) – equation (5), equations explain that older workers, however, are paid an effective interest rate on their savings, which is larger than  $r$ , to compensate them for risk that they may die before withdrawing their savings. Similarly, older workers who borrow pay

the rate to compensate bank for risk that they may die before repaying their borrowings. This is equivalent to treating all savings as being in the form of annuity purchases, while all borrowing has to be accompanied by an actuarially fair life insurance contract for the amount of loan. Provided that a continuum of older workers exists, the financial sector can avoid all risk by aggregating it over individuals and earning zero profits.

Furthermore, on answering the question “What should be the future challenges for Thailand organizations?” is to use equation (6), paper uses the combination from equation (1) – equation (5) expressing the outcome of policy responses as following: government is showing that he or she is prepared to take initiative adopting some system of transfer payments to provide income for older individuals and relieve family burdens. Inevitable consequences for managing an ageing workforce have yet to be addressed. Almost certainly the present emphasis on recruitment and salary administration that addresses issues more relevant to a younger workforce will need to change. Of course more interest to older employees is provision of continual retraining and development, introduction of performance appraisal, attention to occupational health and safety, salary and benefits administration (Patrickson, 2001).

Western management practices in form of jointly funded employer or employee superannuation schemes have led to a gradual transition towards more individuals taking responsibility for their own future and not relying solely on their family or the government for support in Japan and Thailand are investigating similar provisions. Workforce ageing will require a combination of approaches by government and individual firms to ensure that both economic and personal benefits are realized. If Thailand is to follow Western models then government will need to take on an educative role to protect the rights of minorities and ensure that discriminatory practices against the law lead to prosecution (Obrien, 2001). Companies may need to examine their practices to place greater emphasis on what individuals can contribute and less on their age (Patrickson, 1998).

What seems more likely is that Thailand will develop own solutions to the dilemma. Certainly he or she can anticipate increased government effort to provide forms of social security transfer payments to augment the incomes of those in need and to provide for those in retirement. Such is already underway. Changes in human resource management within organizations are similarly underway as more women achieve entry and promotion into senior management. Older individuals begin to organize seeking greater equity. Many used programs of social security are as fundamental on “solidarity principle” which programs are gained from young employed workers contributing to system distributing on pension funds to the retirees. However, this event looks like mathematical problem. It means an increased

outflow on public spending has made it necessary to plan for adjusting in social security systems.

## **5. Conclusions and Recommendations**

An aging Thai is an underappreciated in a highly competitive global and Asian economy. Thailand labor force participation rate of older male workers begins climbing by the 20th century. Moreover, older women are still employed in longer period. That is “Correct”. Thailand now has an aging population. While it is unwise to generalize about human resource management practices across entire rainbow of differing economic, political, religious and cultural practice within Thailand during evolution on politic these days and two years on ward. Managing diversity has become an urgent area of both research (Adler & Israeli, 1994) and practice (Patrickson, 2001) on trying to discourage discriminatory behaviors. In most countries the first diversity issue to be addressed is gender, but two new addresses have begun to emerge in the last decade (Obrien, 2001). One of these is child labor, the other is population ageing. Though anti-discrimination legislation to date appears to lack force, increasing numbers of complaints and publicity are bringing slow awareness of change (Kramar, 2001).

Older workers in public employment or in large corporations are stamped employment until normal retiring age and then separated with income provided in form of a small pension. Most are subsequently either wholly or partially supported by their families, and often engaged in unpaid domestic service sectors of economy. The older workers could choose to reduce hours worked with corresponding reduction in income. But these practices can only be sustained as long as numbers needing assistance are able to be supported by those providing assistance. And there are indications this watershed is gradually approaching. Strong and growing economies are beginning to acknowledge the necessity to develop some form of income support for older citizens unable to find work.

To form older persons be confidence and think of being vulnerable group; it can be increased the involvement such as

1. Developing a supportive environment focusing on care givers and developing a positive image of ageing.
2. Advancing health and well-being into older age focusing on health promotion and training providers of health care.
3. Focusing on income security, social protection and poverty prevention.

If Thai Government can prepare for quality ageing, promoting well-being in older persons and their social security, these will be implemented through partnerships with national and provincial government, civil society and community based organizations.

There are so many aspects concerning and improving such a severe on aging group such as:

1. Assist mature workers with supporting to develop models that will help them recognize the full range of their competencies, organizations serving older adults can assist them in documenting the value they can bring to new employers or new careers and they can present a more complete and realistic picture to potential employers.

2. Support pilot project like healthcare which has a high percentage of older adults in their workforce. Companies have begun to grapple with the challenges posed by the potential retirement of a large segment of their workforce in the next few years. Some of them have recognized the value of creating new roles, such as mentors, for these workers, allowing them to continue working while transferring their knowledge to younger colleagues.

3. Encourage the public sector workforce system to address the needs of the older workforce in collaboration with business and higher education. For older workers to gain long term employability, they need to choose jobs that are not likely to disappear in six months and that are in high-demand industries. The workforce system should provide information and guidance in navigating the new world of work while also helping jobseekers assess education and training options that will help them prepare for jobs with long-term potential.

Therefore, to shape effective opportunities, business and higher education must work with the workforce system to inform the identification of appropriate positions and to identify and develop appropriate training for this population. Collaboration between the government and private foundations can encourage the design of new models.

## **References**

- Adler, N. and D.A. Israeli, 1994, *Competitive Frontiers: Women Managers in a Global Economy*, Blackwell, Cambridge, Mass, USA.
- Bjork, G.J., 1999. *The Way It Worked and Why It Won't: Structural Change and the Slowdown of U.S. Economic Growth*. Westport, CT; London: Praeger, 2 and 67.
- Clark, R.L. and N. Ogawa, 1996, Human Resource Policies and Older Workers in Japan. *The Gerontologist* 36 (5), 627-636.
- Hairault, J.O., Langot, F. and T. Sopraseuth, 2014, Why is Old Workers' Labor Market More Volatile? Unemployment Fluctuations over the Life-Cycle. *IZA Journal of Labor Policy*, a SpringerOpen Journal.
- Heywood, J.S., Zho Lok-Sang and X. Wei, 1999, The Determinants of Hiring Older Workers: Evidence from Hong Kong. *Industrial and Labor Relations Review* 52 (3).
- IBIS Review, 1996, (Chicago), 2 (2), 24.
- ILO. 1997, Press Release ILO/97/31 (Geneva, ILO), 28 November, p. 2.
- IMF. 2012, Statistics on the Growth of the Global Gross Domestic Product (GDP) from 2003 to 2013.

- Institute for Population and Social Research, 2006, Population Projections for Thailand, 2005-2025. Mahidol University.
- Kramar, R. 2001, Diversity in Hong Kong. in M. Patrickson & P.Obrien (eds.), Managing Diversity: An Asian and Pacific Perspective, Wiley, Brisbane, forthcoming.
- Lee, E. 1998, The Asian Financial Crisis: Origins and Social Outlook. *International Labor Review* 137 (1), 81-93.
- Li, L. 1998, The Older Worker in Asia: Balancing the Yin and the Yang in M. Patrickson & L. Hartmann (eds.) Managing an Ageing Workforce, Business and Professional Publishing, Melbourne, 235-51.
- Lucas, L. 1999, Reality Check. *Asian Business* 35 (4), 44-46.
- Martin, S.J. and J.V. Castello, 2009, Business Cycle Effects on Labour Force Transitions for Older People in Spain. *Dialnet*, 25, 1-46.
- Martinsons, M.G. 1999, The 1999 PRISM Pacific Rim Leadership Summit — Management in China After Two Decades of Open Door Policy. *Journal of Applied Management Studies* 8 (1), 119-126.
- McComb, R. 1999, China's Human Resource Odyssey. *The China Business Review* 26 (5), 30-33.
- Moss, K.R. and T.D. Dretler, 2000, Global Strategy and Its Impact on Local Operations: Lessons from Gillette Singapore in M. Mendenhall & G. Oddou (eds.), Readings and Cases in International Human Resource Management, 3rd edition, South Western College Publishing, USA, 4-17.
- Mortensen, D.T. and C.A. Pissarides, 1994, Job Creation and Job Destruction in the Theory of Unemployment. *Review of Economic Studies* 61 (3) (July), 397-415.
- National Statistical Office, 2014, National Statistical Office, Ministry of Information and Communication Technology. The labor Force Survey: July 2014.
- Obrien, P. 2001, Insiders and Outsiders in M. Patrickson & P. Obrien (eds.), Managing Diversity: An Asian and Pacific Perspective, Wiley, Brisbane, forthcoming.
- Patrickson, M. 1998, Reversing the Trend to Early Retirement in M. Patrickson & L. Hartmann (eds.), Managing the Ageing Workforce, 106-120.
- Patrickson, M. 2001, Introduction to Diversity in M. Patrickson & P. Obrien (eds.), Managing Diversity: An Asian and Pacific Perspective, Wiley, Brisbane, forthcoming
- Patrickson, M. 2001, The Ageing Workforce: Implications for Human Resource Management in R. Weisner B. Millett (eds.), Human Resource Management: Challenges and Future Directions, Wiley, Brisbane, Australia, forthcoming.
- Rosario, L. 1994, Hong Kong Age Old Problem. *Far East Economic Review* 157 (4), 24.

- Samorodov, A. 1999, Ageing and Labour Markets for Older Workers. *Employment and Training Papers* No 33, International Labour Organisation, Geneva.
- Sheffrin, S.M. 2003, Economics: Principles in action. Upper Saddle River, New Jersey 07458: Pearson Prentice Hall, p. 387.
- Sparrow, P., Schuler R.S. and S.E. Jackson, 2000, Convergence or Divergence: Human Resource Practices and Policies for Competitive Advantage Worldwide in M. Mendenhall & G. Oddou (eds.), *Readings and Cases in International Human Resource Management*, 3rd edition, South Western College Publishing, USA, 42-69.
- Statistics Bureau Japan, 2014, Statistics Bureau, Ministry of Internal Affairs and Communications. April 1, 2014 (Final estimates) and September 1, 2014 (Provisional estimates).
- United Nations, 1992, Economic Studies No.3. New York, ECE, p. 17.
- United Nations, 2002, World Population Ageing 1950-2050. Department of Economic and Social Affairs Division, Population Division, New York.
- Walsh, J. 2011, Demographic Change and Sustainable Economic Development: Employment Perceptions of Older Workers in Thailand. *Journal of Economics and Organization of Future Enterprise*, Quarterly Journal.
- Whitman, MvN. M. 1999, New World, New Rules: The Changing Role of the American Corporation, Harvard Business School Press, Mass.
- Woon, W. 1994, Family Matters. *Far East Economic Review* 157 (32), 30.
- World Employment Report, 1998-1999, International Labor Office, Geneva, Switzerland.
- Yoon, G. and K.S. Eun, 1995, Understanding Aging in Korea. *Korean Journal of Population and Development* 24 (2), 301-317.