The Retirement Factors of Elder Worker in Thai Manufacturing: Describing the Situation

Wannapa Luekitinan

Faculty of Management and Tourism, Burapha University, Thailand

Email: Wannapa.w236@yahoo.com

Abstract—**According to the aging society in Thailand, this study aimed to describe the elder worker management situation toward human resource management role and to explore the retirement factors of elder worker in Thai manufacturing. The quantitative approach and cross-sectional strategy were used. Five hundred and twenty-eight older workers aged above 45 years and working in the manufacturing industry in an industrial estate area were given a questionnaire in order to obtain the data. The statistics frequency, percentage, mean, standard deviation and confirmatory factor analysis were employed to analyze the data. The finding revealed that the level elder worker management was moderate. Regarding the retirement factors, the findings showed there were four retirement components; health and relation, feeling and status, policy and administration, and work return. When consider the factor loading, the most critical component was work return. For the content analysis of the open-ended question concerning elder worker management suggestions, most of the participants suggested that organizations should improve benefit packages, especially regarding medical care benefits.**

Index Terms—**elder worker, employment, aging society, manufacturing**

I. INTRODUCTION

Population aging is the phenomenon by which older people become a large proportion of the total population. People are living longer because of better health care and better economic well-being [1]. Meanwhile, fertility has declined in addition to people choosing to have fewer children. This has led to significant shift in the age structure of the world's population.

Although it is most advanced in Europe and North America, population aging is occurring, or will soon begin, in all the major areas of the world. Globally, the share of older people (aged 60 years or older) increased from 9% in 1994 to 12% in 2014, and is expected to reach 21% by 2050 [2].

In Thailand, the number of older persons has increased since 1960 because of the precipitous fall in birth rates, combined with increasing survival at older ages, resulting in persons aged 60 and older doubling their share of the population from 5% to an estimated 13% at present.

Further, the fertility was low because of government policy that promoted one family per two children [3].

Because of the aging society in Thailand, the age structure has affected the economic and social structure, especially the labor market, where the elderly is participating in the labor market because of workforce shortages. Meanwhile, the number of workers in the market is not sufficient, so most enterprises in the manufacturing industry recruit workers aged between 20-30 years more than older workers [4]. Thus, elder worker employment is the critical point that should be concern in order to solve the workforce shortage in the labor market.

However, most organizations did not focus on elder worker employment, the elderly were perceived to low efficiency [5] [6] and organizations are not concerned about elder worker management, such as retention, recruitment and selection, training [7], compensation [8], and health promotion [5] [9].

Moreover, elder worker management also depends on organization factors, such as employer/leader attitudes [10], organization value, and policy [11]. Individual factors, such as financial problem, health problem [12], spousal effects [13] etc. were critical factors as well as organization factors.

This study aimed to describe the elder worker management situation toward human resource management role and to explore the retirement factors of elder worker in Thai manufacturing. The paper is divided into 5 parts, consisting of the introduction, literature review, methodology, findings, and conclusion.

II. LITERATURE REVIEW

A. Defining "Old"

Age classification varies among countries and over time, and this is reflected in many instances of social class differences or functional ability related to the workforce, but more often than not is a reflection of the current political and economic situation. Many times the definition is linked to the retirement age [14].

Most developed countries have accepted the chronological age of 65 years as the definition of "elderly" or older person. While this definition is somewhat arbitrary, it many times has been associated with the age at which one can begin to receive pension benefits. For developing countries, the definition of older many times followed in developed countries; that is, the

government sets the definition by stating a retirement age. However, although there is no United Nations standard numerical criterion, the UN agreed that the cutoff of 60+ years should refer to the older population [15].

Study results published in 1980 provide a basis for a definition of old age in developing countries [16]. Definitions fell into three main categories: 1) chronology; 2) change in social role (i.e. change in work patterns, the adult status of children and menopause); and 3) change in capabilities (i.e. invalid status, senility, and change in physical characteristics). The results from this cultural analysis of old age suggest that the change in one's social role is the predominant means of defining old age. When the preferred definition was chronological, it was most often accompanied by an additional definition.

For this study, the change in capabilities category was employed as the definition of the older worker, and in addition, the author interested in exploring opinions about the factors affecting the retirement decisions of older workers before employee retirement. Thus, changes in physical characteristics—gray hair, misty eyes, short memory, etc.—emerge when people get older and these criteria were used to classify the employee as an older worker. Generally, changes in physical characteristics emerge at 45 years old and more [17].

B. Retirement Factors

Griffiths [11] was interested in the issue of the increasing number of older workers continuing to work with the organization and stated that the factors that are important in hiring older workers are national policies, organizational policies, management attitude, work demand, work environment, physical environment, psychological environment, health promotion, and work design. On the other hand, Kalirajan and Shantakumar [18] identified the factors that affect hiring older workers in the labor shortage situation are income, receiving tax and social protection, and McKelvey [19] has argued that the state social welfare will affect older workers' decisions to continue to work or not. Furthermore, Chiu, Chan, Snape, and Redman [10] stated that the attitude of the supervisor will affect discrimination against older workers. Billett, Dymock, Johnson, and Martin [6] also noted that human resource management policy and government policies affect the aging workforce management in the organization, including affecting the decision to extend the retirement age of employees.

Williamson and Higo [12] compared older people's employment in Japan and the United States and found that the majority of older workers in Japan continued to work after retirement due to economic factors, family income, social participation, asked work, and health. Meanwhile, Dam, Vorst, and Heijden [13] indicated that older workers' spouses influence decisions about early retirement. Adler and Hilber [8] stated that one of the factors that could predict seniors' retirement is suitable job, and Zappalà, Depolo, Fraccaroli, Guglielmi, and Sarchielli [20], who surveyed the perception of older workers concerning early retirement and late retirement in Italy, found that older workers wanted to retire early and the factors affecting the retirement age were personal

attitude, age, income, importance of the assignment, and organizational policy that supports the elderly. Moreover, the study of Schreurs, Cuyper, Notelaers, and Witte [21] concerning the intention of the early retirement of blue collar employees and white collar employees found that the factors affecting retirement were health, medical conditions, and work enjoyment.

TABLE I. RETIREMENT FACTORS

No	Retirement Factors	Reference
1	Income	18], [12], [20]
2	Sense of belonging	[12]
3	Asked work	[12]
4	Health and illness	[12], [23], [21], [24]
5	Personal perspective	[20]
6	Spousal affect	[13]
7	Physical environment	11], [13]
8	Social environment	11], [23]
9	Work assignment	[20], [23]
10	Suited work	[8]
11	Participation in the organization	[13], [25]
12	Work enjoyment	21]
13	Work status	[24]
14	Independence	[23]
15	Power and control	[23]
16	Organizational policy	11], [20], [23]
17	Employer attitude	10], [7], [25], [24], [23]
18	Human resource management policy	[6], [11]
19	Government policy	11], [6], [26]
20	Social protection	[18], [19]
21	Older worker employment recognition	[23]

C. Elder Worker Management

Previously, elder workers were often seen as invaluable, the organizations did not take into account in training and skills development. Currently, organizational management and human resource management must shift their paradigm [6]. Organizations need to understand the difference between individuals and recognize the potential of older worker, including setting clear discrimination policy [5]. In some parts of previous research, documents have addressed 5 human resource management functions associated with the hiring of older workers.

Organizations must standardize their recruitment and hire suitable older workers [5], including evaluates the performance by considering the potential of seniors [6]. In terms of compensation and benefits, the organization should improve compensation packages and create compensation package that meet the needs of the elder, such as increasing health insurance, pensions, elderly health service, and so on. Regarding training and development, the organization must design flexible and diverse training programs, because older workers have differences in learning styles. Regarding employee relations, older workers prefer to work with less stress and work in an atmosphere of respect and praise, and an aging workforce requires open communication. Thus, the leader should build trust and unity within the organization [22].

III. METHODOLOGY

The quantitative approach and cross-sectional strategy were used in the present study. Five hundred and twenty-eight older workers aged above 45 years and working in the manufacturing industry at the industrial estate area were the samples. The questionnaire was used to gather the data and the convenience sampling technique was employed to select the sample. For the data analysis, statistics—frequency, percentage, mean, standard deviation and confirmatory factor analysis—were employed. The description of samples has shown in Table II.

TABLE II. DESCRIPTION OF SAMPLES

Detail	Number of Participants	Percentage
Gender		
Male	314	59.50
Female	214	40.50
Position		
Operation/Plant	336	63.60
Office/Support	192	36.40

The questionnaire was designed on the basis of a thorough literature review that consisted two parts. First part is selective choices about personal information, and second part were five-point Likert scale ranging from 1 to 5 (strongly disagree to strongly agree). A brief description of the final scale items follows.

1) Retirement factors – this refers to the factors affecting the retirement decision of older workers in the Thai industry consisting of 21 factors: income, sense of belonging, asked work, health and illness, personal perspective, spousal affect, physical environment, social environment, work assignment, suitable work, participation in the organization, work enjoyment, work status, independence, power and control, organizational policy, employer attitude, human resource management policy, government policy, social protection, and elder worker employment recognition.

2) Elder worker management – this refers to the human resource management activities that focus on people at an older age in Thai manufacturing industry consisting of recruitment and selection, promotion, compensation, training and development, and employee relations.

For the last section in the questionnaire, the author used the open end question about the solution to improve elder worker management and content analysis was employed to analyze the data.

IV. FINDINGS

A. Elder Worker Management Situation

The level of totally elder worker management was rated at a moderate level ($\bar{x}$ = 3.18, SD = 0.84). When consider each aspect of elder worker management, the promotion ($\bar{x}$ = 3.29, SD = 0.97), compensation ($\bar{x}$ = 3.22, SD = 1.10), employee relation ($\bar{x}$ = 3.21, SD = 0.96),

training and development ($\bar{x}$ = 3.14, SD = 0.89), and recruitment and selection ($\bar{x}$ = 3.06, SD = 0.87) were rated at a moderate level.

TABLE III. LEVEL OF ELDER WORKER MANAGEMENT

Elder worker management	Opinion Level			
	$\bar{x}$	SD	Level	Ranking
Recruitment and selection	3.06	0.87	Moderate	5
Promotion	3.29	0.97	Moderate	1
Compensation	3.22	1.10	Moderate	2
Training and development	3.14	0.89	Moderate	4
Employee relation	3.21	0.96	Moderate	3
Total	3.18	0.84	Moderate	

Concerning the content analysis of the open-ended question about the solution to improving elder worker management, the participants identified that their companies are not concerned about the quality of the work life of the elderly. Sometimes most organization lay off older laborers caused by their capability change. The participants not only mentioned the idea of improvement of the physical environment but also suggested that changing benefit packages and medical services could be of concern.

B. Retirement Factor Analysis

For the first confirmatory factor analysis, the findings showed there were 4 retirement components and there were 18 indicators. When regarding in measurement model consistency, the measurement model consistent with the empirical data (x^2 = 128.352 df = 79 P-value = 0.56 GFI = 0.97 CFI = 0.99 RMSEA = 0.03). The four retirement component that were follow:

1) Health and Relation Component – consisted of five indicators; asked work, health and illness, personal perspective, social relationship, and value of work assignment. The factor loading of these indicators were 0.63-0.74.

2) Policy and Administration Component – consisted of six indicators; organizational policy, employer attitude, human resource management policy, government policy, social protection, and elder worker employment recognition. The factor loading of these indicators were 0.57-0.92.

3) Work Return Component – consisted of four indicators; income, sense of belonging, suited work, and participation in the organization. The factor loading of these indicators were 0.67-0.77.

4) Feeling and Status Component – consisted of three indicators; work enjoyment, work status, and independence. The factor loading of these indicators were 0.49-0.75.

TABLE IV. First Confirmatory Factor Analysis

No	Components	Factor Loading	t	SE	R^2
	Health and Relation Component (Health)				
1	Asked work	0.74	-	-	0.55
2	Health and illness	0.63	12.26	0.07	0.40
3	Personal perspective	0.73	12.83	0.08	0.53
4	Social Relationship	0.68	12.56	0.08	0.46
5	Value of work assignment	0.72	13.07	0.07	0.51
	Policy and Administration (Policy)				
6	Organizational policy	0.59	-	-	0.34
7	Employer attitude	0.77	15.11	0.08	0.60
8	Human resource management policy	0.78	13.24	0.09	0.61
9	Government policy	0.68	13.23	0.08	0.46
10	Social protection	0.57	11.72	0.08	0.32
11	Elder worker employment ecognition	0.92	14.36	0.10	0.86
	Work Return Component (Return)				
12	Income	0.67	-	-	0.45
13	Sense of belonging	0.73	18.60	0.04	0.53
14	Suited work	0.73	14.96	0.05	0.53
15	Participation in the organization	0.77	14.75	0.06	0.60
	Feeling and Status (Hire)				
16	Work enjoyment	0.75	-	-	0.57
17	Work status	0.49	8.72	0.08	0.24
18	Independence	0.58	10.02	0.08	0.34
	$\chi^2 = 128.352$ df = 79 p-value = 0.56 GFI = 0.97 CFI = 0.99 RMSEA = 0.03				

Considering the secondary confirmatory factor analysis, the findings showed the most critical component was Work Return had a factor loading at 0.97, followed by Health and Relation had a factor loading at 0.84, Feeling and Status had a factor loading at 0.73, and Policy and Administration had a factor loading at 0.68. When regarding in measurement model consistency, the measurement model consistent with the empirical data (χ^2 = 96.84 df = 75 p-value = 0.06 GFI = 0.98 CFI = 0.99 RMSEA = 0.02). (Fig. 1)

V. DISCUSSION

This study aimed to describe the elder worker management situation toward human resource management role and to explore the retirement factors of elder worker in Thai manufacturing. The quantitative approach and cross-sectional strategy were used. Data for 528 older workers aged above 45 years and working in the manufacturing industry at an industrial estate area were gathered from the questionnaire. The quantitative findings revealed that the level of elder worker management was moderate, and the content analysis results found that Thai enterprises are not concerned about aging workers according to which elder workers are seen as invaluable [6], and organizations often have a negative perspective of older workers [10] [23] [24] [25].

For elder worker management towards human resource management role, recruitment and selection was rate at the last ranking. Many Thai companies prefer to hire the young people aged between 18-39 years old [4]. Thus, the hiring process and selection standard were not prepared or improved [5] [6].
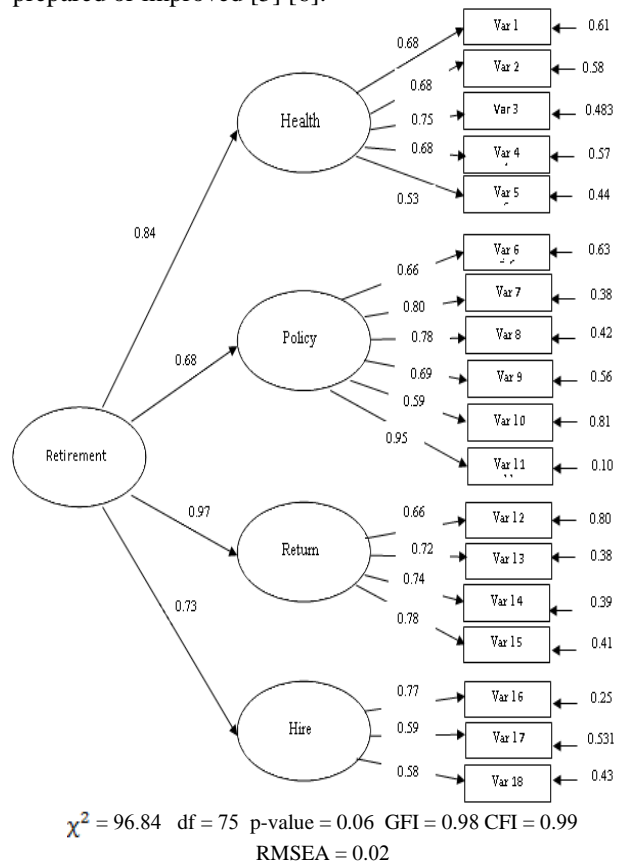

Figure 1.   Second order confirmatory factor analysis

Regarding the retirement factors, the findings showed there were four retirement components; health and relation, feeling and status, policy and administration, and work return. When consider the factor loading, the most critical component was work return, as Williamson and Higo [12] stated the majority of Japanese elder people continued to work after retirement due to economic factors, family income, social participation. Moreover, the perception survey of elder workers concerning early retirement and late retirement in Italy showed the factors affecting the retirement age were income, importance of the assignment, and organizational policy that supports the elderly [20].

From research findings, work return is the critical issue that elderly person concerned to continue to work and this factor might associate with early retirement and late retirement. Thus, the organizations that need to employ the elder worker should focus the income that can support the living life of elderly. For work design, the assignment should concern the physical and capability of the worker, including the value of work and work value would be affect the work happiness. Further, working as the team would socialize the sense of belonging and ownership, as well as, the participation at work or organizational activities would affect to work motivation.

Considering the human resource management role, the organizations should concern to elderly worker hiring according to elderly is a source of labor supply and most elder worker have the capability to generate the value and wealthy through their knowledge and experience. Therefore, the organization should improve the selection criteria and evaluates the qualification by considering the potential of seniors. The age discrimination policy must be used as the selection standard. Especially, the recruiters must recognize the equal employment opportunity as the work value.

As this paper has the purpose of explaining the elder worker situation in Thailand, the research was designed only to explore the current opinion of workers in the manufacturing industry. Further research must study other sectors, such as the service industry and the agricultural industry as these industries are major industries that also generate the gross domestic product.

REFERENCES

[1] United Nations Population Fund, Aging Overview, 2015, retrieved on February 15, 2016 from www.unfpa.org

[2] United Nation, Concise Report on the World Population Situation in 2014, United Nation: New York, 2014.

[3] Foundation of older person Development, Situation of Thai Elderly (Population Situations), 2011, retrieved on October 31, 2012 from fopdev.or.th

[4] Bank of Thai, Labor Shortage in Thailand: The Problems, Causes, and Solution 2011, Bank of Thai: Bangkok. [In Thai], 2011.

[5] R. J. Shepharda, "Aging and productivity: Some physiological issues," *International Journal of Industrial Ergonomics*, vol. 25, no. 5, pp. 535-545, 2000.

[6] S. Billett, D. Dymock, G. Johnson, and G. Martin, "Overcoming the paradox of employers' views about older workers," *The International Journal of Human Resource Management*, vol. 22, no. 6, pp. 1248-1261, 2001.

[7] H. P. Dalen, K. Henkens, and J. Schippers, "Dealing with older workers in Europe: a comparative survey of employers' attitudes and actions," *Journal of European Social Policy February*, vol. 19, no. 1, pp. 47-60, 2009.

[8] G. Adler and D. Hilber, "Industry hiring patterns of older workers," *Research on Aging*, vol. 31, no. 1, pp. 69-88, 2009.

[9] P. Naumanen, "The health promotion model as assessed by aging workers," *Journal of Clinical Nursing*, vol. 15, no. 2, pp. 219–226, 2006.

[10] W. Chiu, A. W. Chan, E. Snape, and T. Redman, "Age stereotypes and discriminatory attitudes towards older workers: An east-west comparison," *Human Relations*, vol. 54, no. 5, pp. 629-661, 2001.

[11] A. Griffiths, "Work design and management-the older worker," *International Journal Devoted to the Scientific Study of the Aging Process*, vol. 25, no. 4, pp. 411-420, 1999.

[12] J. B. Williamson and M. Higo, "Older worker: Lessons from Japan," *Work Opportunities for Older Americans*, vol. 11, pp. 1-9, June 2007.

[13] K. Dam, J. Vorst, and B. Heijden, "Employees' intentions to retire early a case of planned behavior and anticipated work conditions," *Journal of Career Development*, vol. 35, no.3, pp. 265-289, 2009.

[14] P. Thane, "The muddle history of retiring at 60 and 65," *New Society*, vol. 45, no. 826, pp. 234-236, 1978.

[15] United Nation, Definition of an Older or Elderly Person, 2011, retrieve on October 31, 2012 from www.who.int

[16] A. P. Glascock, "A holocultural analysis of old age," *Comparative Social Research*, vol. 3, pp. 311-312, 1980.

[17] Chulabhorn Research Institute, The Summery of Social Security Academic Conference, 2011, retrieve on October 31, 2012 from https://sites.google.com/site/nhso2011/km-reuxng-thawpi/karphathnakarcaykhabrikarthangkarphaethykhxngsanakng anprakAnsangkhmnixnakht [In Thai].

[18] K. P. Kalirajan and G. Shantakumar, "Aging labor force in a labor shortage economy: the case of Singapore," *International Journal of Social Economics*, vol. 25, no. 2, pp. 486 – 503, 1998.

[19] J. B. McKelvey, "Globalization and aging workers: constructing a global life course," *International Journal of Sociology and Social Policy*, vol. 29, 49 – 59, 2009.

[20] S. Zappalà M. Depolo, F. Fraccaroli, D. Guglielmi, and G. Sarchielli, "Postponing job retirement?: Psychosocial influences on the preference for early or late retirement," *Career Development International*, vol. 13, no. 2, pp. 150 – 167, 2008.

[21] B. Schreurs, H Emmerik, N. Cuyper, G. Notelaers, and H. Witte, "Job demands-resources and early retirement intention: Differences between blue-and white-collar workers," *Economic and Industrial Democracy*, vol. 32, no. 1, pp.47-68, 2011.

[22] B. McIntosh, *An Employer's Guide to Older Workers: How to Win Them Back and Convince Them to Stay*, United Stated: Employment and Training Administration, 2001.

[23] K. Shacklock and Y. Brunetto, "A model of older workers' intentions to continue working," *Personnel Review*, vol. 40, no. 1, pp. 252-274, 2011.

[24] L. Lu, "Attitudes towards aging and older people's intentions to continue working: a Taiwanese study," *Career Development* International, vol. 17, no. 1, pp.83 – 98, 2011.

[25] D. Buyens, H. Dijk, T. Dewilde and A. Vos, "The aging workforce: perceptions of career ending," *Journal of Managerial Psychology*, vol. 24, no. 2, pp.102 – 117, 2009.

[26] K. Karpinska, K. Henkens, and J. Schippers, "Retention of older workers: Impact of managers' age norms and stereotypes," *Europe Social Rev,* 2013.

[27] W. Loretto, "Work and retirement in an ageing world: the case of older workers in the UK," *Journal of the Academy of Social* Sciences, vol. 5, no. 3, pp. 279-294, 2010.

Wannapa Lukitinan was born in Chonburi province, Thailand, on October 24, 1983. She got the Ph.D. in technopreneurship and innovation management at graduate school, Chulalongkorn University, Thailand, in 2012. The major fields of her study are labor employment, human resource management, innovation-oriented human resource management.

She has worked as the lecturer at Faculty of Management and Tourism, Burapha University, Thailand since 2013. At present, she holds the Assistant Professor in human resource management at the university. The previous publication include; 1) Organizational climate and individual innovation, in The Advance in Management and Applied Economics Journal 2) Employability and job Mobility: the critical skill for new graduates in ASEAN, in The Global Journal of Business Research, and 3) The relationship between structural empowerment and job satisfaction: a case study of a Thai automobile company, in The World Review of Business Research.

Asst. Prof. Dr. Wannapa Luekitinan has got the best paper award in 2012 Hawaii Global Conference on Business and Finance at Hawaii, USA. She is not only to research in employment and lecturer in human resource management program but also work with the private sector in the Eastern industrial estate of Thailand, such as the eastern personal management association, to develop the bachelor degree curriculum of business administration.