

**RETENTION OF TALENTED PERSONNEL IN  
THE NEW MEDICAL SCHOOLS IN THE  
NORTHEASTERN THAILAND**

**Kwannapis Ratchatawan**

**A Dissertation Submitted in Partial  
Fulfillment of the Requirements for the Degree of  
Doctor of Public Administration  
School of Public Administration  
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2018**

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## **ABSTRACT**

<b>Title of Dissertation</b>	Retention of Talented Personnel in the New Medical Schools in the Northeastern Thailand
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This dissertation was aimed at studying factors affecting the retention of talented personnel in the new medical schools in the northeastern Thailand and to study how to retain such talented personnel. This research involved qualitative research. Data was collected through in-depth interviews and observation. Key informants of this research include a total of 38 personnel: 27 medical professors, who are working in the new medical schools in northeastern Thailand, nine administrators of the new medical schools in the northeast and two qualified experts.

The results of the study revealed that the development guidelines for retaining personnel in the three new medical schools in the northeast have an attitude toward medical professors in the same direction, that is, in order to retain these individuals they should be retained through different mechanisms compared to professors at other faculties at universities because the medical profession has different job characteristics. A big picture should be also taken into consideration. Firstly, education must be reformed and doctors' attitudes must be adjusted. Secondly, their roles and missions should be introduced prior to employment. The workloads must be balanced so that medical professors can perform tasks that they wish to do. The performance appraisal system should be flexible and compensation should be adjusted in accordance with their talent and workloads. Thirdly, as for the work environment and work atmosphere, hospitals must be developed to be ready and suitable for medical professors' talents. Lastly, organizational engagement must be created

through a process that promotes a mechanism for producing and attracting former students to work at their organizations.

Recommendations from this research are as follows: administrators must provide advice to medical professors by themselves in order to create trust, acceptance and confidence among all medical professors in the medical schools. Such a positive concept can promote harmony in carrying out operations in accordance with organizational policies and plans under a creative and integrated culture. The heart of sustainable retention of medical professors does not concern compensation, but engagement and work happiness or allow them to do what they wish to do with respect to their professional tasks.

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# CHAPTER 1

## INTRODUCTION

### 1.1 Background and Problem Significance

The context of global development has rapidly changed to an age of borderless communication. So far, various countries, including Thailand, have adjusted themselves and accelerated development using a wide variety of national development processes ceaselessly. For example, the 12<sup>th</sup> National Economic and Social Development Plan has identified significant changes, namely changing ways of life of people in society, high competition, fast-paced work, malnutrition and rural development inequality, particularly the lack of education and lack of widespread public health services. As a result, rural people do not know how to properly take care of their health. Social risk factors have made Thai people face non-communicable diseases as a result of accumulated inappropriate health behaviors, such as hypertension, diabetes and heart diseases. Due to the above problems, it is necessary to urgently accelerate reform and development in all relevant sectors of society. In addition, these risk factors affect public health services, especially decreasing service quality because of the rising number of patients, while public health resources are limited (Health Systems Research Institute, 2012). The northeastern region of Thailand is a clear example. Northeastern people as a top priority face a problem of access to public health services. The Ministry of Public Health's data for 2016 revealed that the ratio of doctors to the population in the northeast amounted to 1: 3,338, while the average national ratio was 1: 2,065. The ratio of professional nurses to the northeastern population was 1: 587, while the national average ratio was 1: 423. The ratio of beds to the northeastern population was 1:636, while the national average ratio was 1:459 (Bureau of Policy and Strategy, Ministry of Public Health, 2017).

Based upon the above information, it is evident that public health service systems still suffer from an insufficiency of resources, in particular human resources, although the public sector issued policies to solve that problem, which is now better at a certain level. The demand for human resources with respect to health services is changing under the context of individual health demand, environmental changes in terms of society, economics and politics, as well as social awareness in perceiving news and expectancy of service quality. As the health system has become more complicated, there are policy restrictions that limit health human resources to efficiently adapt to changes. In addition, there is no national mechanism to develop strategies with respect to manpower, control policies and integrate cooperation between agencies in terms of planning and production so that all of these can be applied to lead to efficiency, along with efficient solutions with respect to health human resources. Cooperation from all parties is required in Thailand (Health Resource Report, the Bureau of Policy and Strategy, Ministry of Public Health, 2017).

The issue of manpower pertaining to health situations in Thailand is still a critical problem in terms of a shortage of personnel in different fields, inappropriate rural and urban distribution, work environment that does not contribute to job efficiency, and relationship between service providers and service users. Health human resources are key resources pertaining to health systems and a success or failure factor for health operation because they are both builders and leaders of health technology. They are also health managers to make people healthier. Health human resources are, therefore, important resources that should be seriously and continuously emphasized. The Thai government plays a role in providing health services so that they are fairly, qualitatively and effectively accessible. A public participation process is also needed. As mentioned above, sufficient manpower, equal distribution of health services, an appropriate ratio of manpower, competent manpower, motivation, and public participation are needed (Working Group of the Strategic Plan for the Decade of National Human Resources for Health Development, 2007, pp. 12-14).

Health professionals are regarded as talented but insufficient when it comes to the number of available personnel. The shortage of this profession also affects the country because health and public health problems rely on the support of medical science and technology. The number of healthy people nationwide is an indicator for

the national well-being of the population and for national development. The distribution of doctors in Thailand indicates that half of all doctors worked in Bangkok, with a population of about 5.68 million, while the other half had to take care of the remaining 60.51 million people (Department of Provincial Administration, 2017). The area with the highest shortage of doctors in rural areas took place in the northeastern region. This might be because of personnel distribution in accordance with the health premise criteria. It is one problem leading to unbalanced distribution. Apart from the shortage of doctors in the region, the shortage of doctors in areas outside the main districts or municipalities in the provinces was very high (Nilnetr Virasombat, 2009, p. 26).

**Table 1.1** Ratio of Individual Medical Personnel to the Regional Population in 2017

Region	Doctors	Dentists	Pharmacists	Professional	Technical
				Nurses	Nurses
Whole Country	1,843	6,681	4,750	405	10,998
Bangkok		2,340	2,196	172	1,711
Central	1,869	6,872	5,846	437	24,862
North	2,074	7,151	5,050	423	31,040
Northeast	2,846	10,628	6,835	559	17,987
South	2,191	7,470	5,155	399	23,403

**Source:** Bureau of Policy and Strategy, Ministry of Public Health, 2017.

Table 1.1 indicates that most doctors wished to work in cities with growth and complete tools and resources. Due to social and economic changes, private hospitals are now beginning to appear. In the past, most doctors did not want to work in private hospitals because the benefits and welfare were not as much as the current ones. However, later private hospitals made better progress with respect to this issue. In addition, as a result of medical tourism, foreigners with high incomes have lived in Thailand and used Thai medical services. Thus, private hospitals now have high

income and large-scale private hospitals now require talented doctors because of the high number of foreign patients.

Because of the shortage of doctors, the Ministry of Public Health has realized the importance and necessity of doctor production to meet the needs of the rural population who cannot access large medical centers in urban areas. As the Medical Council of Thailand has greatly realized the problem of doctor shortages, there has been cooperation in promoting institutions to produce general practitioner doctors. In the past, the Medical Council of Thailand had a supporting policy to produce more doctors based upon a network of the existing medical schools. Due to quality restrictions pertaining to the educational quality of the Doctor of Medicine Program, the ratio of production capacity was not enough, so more doctors had to be produced. As a result, eight medical schools were founded: Faculty of Medicine Mahasarakham University; Institute of Medicine, Suranaree University of Technology; College of Medicine and Public Health, Ubon Ratchathani University; Faculty of Medicine, Burapha University; School of Medicine, Walailak University; Faculty of Medicine, Princess of Naradhiwas University; School of Medicine, University of Phayao; and School of Medicine, Mae Fah Luang University, all of which have been certified by the Medical Council of Thailand since 2006. After that, the Faculty of Medicine, King Mongkut's Institute of Technology Ladkrabang was opened. There are now a total of 22 public and private medical schools.

Teaching and learning in new medical schools are divided into two parts: Part 1, the second-year and third-year medical students called pre-clinical, and Part 2, the fourth-year to the sixth-year students called clinical. As a large number of medical students cannot be produced like other professions because of the management standard of the quality of medical graduates, the production depends on the condition of the Medical Council of Thailand, that is, the number of students admitted. The annual budget per one student costs 300,000 baht. Additionally, there is a ratio of one medical professor to four students in a pre-clinical course (The Medical Council of Thailand, 2012). Moreover, new medical schools have limitations with respect to hospital construction and the size of patient beds, as specified by the Medical Council of Thailand. As a result, clinical students cannot be taught. Cooperation is sought with nearby large-scale hospitals with 400 beds, as specified by the Medical Council of

Thailand, to serve as the center of medical studies at the clinical level for medical students' teaching and learning. The unequal ratio of doctors to the number of people in the northeast is higher than that of other regions despite three additional new medical schools. They are not sufficient for the necessity of medical graduate production to solve the shortage of doctors in the region and rural areas, which still constantly require more doctor manpower.

Given the situation discussed above, it is remarkable that the new medical schools in the northeast are facing a shortage of medical professors, especially at the clinical level of new medical schools, which have a high turnover rate. Thus, the manpower/personnel/human resource rate is insufficient and affects the reliability of the new medical schools because lecturers are those with specific professional fields necessary for new medical schools. It is a professional field with talented people under the current shortage situation. As a result, it is difficult to retain medical staff to work at organizations for a long time. In addition, this staff is required by both local and foreign labor markets of public health systems. More employment options are, therefore, available for medical staff. The high turnover rate each year is an indicator reflecting that organizations cannot make talented staff feel happy and enjoy their challenging jobs. Therefore, reducing the turnover rate of medical professors in new medical schools in the northeast, as well as creating motivation for talented personnel to feel engaged and loyal, as well as creating a desire to put physical and moral efforts into their jobs, are significant challenges. To maintain a higher growth rate and competitiveness, organizations have to retain sufficient talented personnel to suit their job positions. It is also necessary to motivate and encourage staff to put their physical and moral efforts into their work and create excellent performance for their organizations. Therefore, organizations have to adjust management styles so that internal systems are consistent with goals that are challenging and keep abreast of environmental changes based on higher competition each year. This situation unavoidably puts pressure on personnel. The operational framework, in accordance with the quality assurance in education, or increasing workload along with a higher expectation of job quality under the same manpower rate, affects the resignation rate of many talented personnel or medical professors at universities, which are the new medical schools.

The researcher realized that the retention of talented personnel in the new medical schools in the northeast is a challenging issue for academic development and that identifying ways to solve the problem can be beneficial to the process of Thai public health systems in the future.

## **1.2 Research Questions**

- 1) Which factors affect the retention of talented personnel in new medical schools in the northeast?
- 2) What are the methods being used to retain talented personnel in each new medical school in the northeast?
- 3) What should be the development guidelines for retaining talented personnel in the new medical schools in the northeast?

## **1.3 Research Objectives**

- 1) To study factors affecting the retention of talented personnel in the new medical schools in the northeast.
- 2) To study how to retain talented personnel in the new medical schools in the northeast.
- 3) To study the development guidelines for retaining talented personnel in the new medical schools in the northeast.

## **1.4 Expected Benefits**

This research will bring about new knowledge concerning the guidelines and policies of human resource management in the new medical schools in the northeast, especially how to retain talented personnel such as medical professors. This knowledge can be applied to develop medical personnel production policies, which will affect the process of efficient doctor production. It will be a key factor for promoting doctor production policies in accordance with the ratio of one doctor to a population of 1,500, specified by the worldwide standard. This policy was formulated

to be implemented by 2022. This will affect health development of Thai people, upgrade the quality of life of the population in all ages, particularly to distribute doctors to rural areas so that all Thai people are healthy, and to serve an ageing society, which will take place in the future.

## **1.5 Scope of the Research**

This research was divided into three parts:

### **1.5.1 Content**

This research is the study of the retention of talented personnel in the new medical schools in the northeast. The concept of personnel retention, talent management, resignation, job satisfaction and job engagement is a conceptual framework because the target groups are medical professors, who are classified as personnel in specific and scarce professional fields.

### **1.5.2 Research Target Groups**

This research involves qualitative research. The target groups include administrators of the new northeastern medical schools consisting of deans, deputy deans, deputy deans of administration, deputy deans relating to human resource management or other relevant divisions, including medical professors who are working in the new northeastern medical schools, and other qualified experts who have relevant roles.

### **1.5.3 Study Areas**

The researcher selected to study the new medical school areas in the northeast because it has the lowest ratio of doctors to population in the country. It is necessary to accelerate the production of a large number of medical personnel in this area.

## 1.6 Definitions of Specific Terms

1) Talents refer to medical professors, who are required by the health labor system. Their turnover rate is high. This field is experiencing a shortage in professionally-trained personnel. They work without much instruction because they are able to manage their professions well. In addition, being medical professors is different from other fields. They have to teach their students to be responsible for human lives. Their professional risk is also high. In this research, they are doctors, who graduated from the doctor of medicine program. They can be general doctors or medical specialists, who teach students in the new medical schools of the universities.

2) Medical professors refer to those who graduated from the Doctor of Medicine Program. They can be general doctors or specialists and are teaching medical students in new medical schools of universities.

3) New Medical Schools in the Northeast refer to schools that produce graduates from the 1<sup>st</sup> year to 3<sup>rd</sup> year medical programs at universities under the supervision of the Ministry of Education in the northeastern region.

4) Pre-clinical Teaching refers to the teaching of the first- to third-year medical students concerning science, anatomy, physiology, etc.

5) Clinical Teaching refers to the teaching of the fifth- to sixth-year medical students. New medical schools have not provided teaching to their medical students because of various limitations. Teaching is provided at the Medical Education Center, or hospitals with at least 400 beds under the Ministry of Public Health. As they are affiliated institutes, teaching and learning takes place in wards, where patients are taken care of and necessary basic procedures are learnt under the supervision of medical professors and residency. The last year students are called externship, who practice in real situations.

6) Medical Education Center refers to the teaching and learning management for clinical students (fourth- to sixth-year students) in collaboration with hospitals under the Ministry of Public Health participating in affiliated institutes to produce doctors and the practice of medical students in cooperating medical schools.

7) Human Resources for health refer to personnel or groups of people gathering to have a role in health promotion, treatment, disease prevention and health

rehabilitation, including personnel of professional groups, support staff, Thai traditional medical personnel, indigenous medical personnel, alternative medical personnel including public health volunteers, core leaders and health networks in the public and private sectors, as well as communities.

8) Medical Procedure refers to the treatment to diagnose normality and abnormality health conditions, as well as various methods of treatment. This procedure is operated by those who pass the learning and training steps to have the skills to diagnose and treat patients using medical procedures, e.g., surgery, endoscopy, blood test, x-ray, radiation therapy, delivery, etc. It includes the treatment of patients using various medical tools and equipment.

## **1.7 Operational Definitions**

1) Retention of Talented Personnel refers to the organizational ability to motivate talented personnel to continue working, to be loyal and engaged by using a wide variety of methods, such as the management of the work environment and good compensation.

2) Turnover refers to personnel voluntarily resigning from their current job and seek a new position at other organizations. Dalton, Krackhardt, and Porter (1981) stated that resignation is categorized into three dimensions: individual voluntary, impacts of resignation on organizations and ability of organizational control.

3) Job Satisfaction refers to personnel's attitudes towards their jobs. It is an individual belief caused by the feeling response to working conditions. It includes overall job satisfaction, as well as the analysis of the satisfaction in each facet of a job with respect to progress opportunity, income or compensation, supervision, work environment, job characteristics and colleagues. The satisfaction level arising is totally caused by individual operation (Munchinsky, 2003, p. 58; Spector, 2011, p. 33), which can be used to differentiate between the existing factors and expectations.

4) Organizational Engagement refers to complete self-devotion to one's responsible tasks, including knowledge and understanding covering confidence in leaders and the organizational environment, as well as both positive and negative attitudes (Kahn, 1990, pp. 693-694). Organizational engagement is a strong feeling towards the desire to continue working or resign (Allen & Meyer, 1990, pp. 2-3).

## **CHAPTER 2**

### **LITERATURE REVIEW AND RELEVANT RESEARCH**

In this chapter, this researcher has compiled the concepts, theories and research relating to practices used to retain talented people in the new medical schools in the northeast region of Thailand from technical documents and textbooks, as well as research to serve as a framework for research operations. The significant issues discussed are as follows:

- 2.1 Personnel Retention
- 2.2 Talent Management
- 2.3 Turnover
- 2.4 Job Satisfaction
- 2.5 Organizational Engagement
- 2.6 Relevant Research
- 2.7 Conceptual Framework

#### **2.1 Personnel Retention**

Personnel retention and can be thought of as being a two-sided coin in which both sides are parallel because retention is the control or management of personnel to make them continue working at the organization. On the contrary, turnover is a decision with an intention to resign due to many reasons. People may hesitate between resignation and staying at their organization. Therefore, personnel retention is an issue aimed at seeking methods of management or operations to serve the goal of personnel retention (Schiemann, 2014, pp. 282-283).

### **2.1.1 Meaning of Personnel Retention**

After identifying the major reasons for resignation, organizations will be able to use this information to analyze and design motivation processes so that employees continue working as long as possible and the resignation trend will be lower. This is the major goal of personnel retention because turnover may affect or cause damage to productivity and increase organizational costs, as all processes relating to either recruitment or transfer have direct lost costs. Personnel retention may help reduce costs and create value to organizations (Echols, 2007, pp. 37-38).

Personnel retention is an effort to systematically create a good environment at an organization so that employees continue working under the policy and operation in the same direction with the organizational goal (Workforce Planning for Wisconsin State Government, 2005). However, personnel retention involves not only retaining employees all the time, but also keeping employees with morality and quality for the most suitable time in accordance with their duties. This can reduce the demand and costs associated with recruiting new employees. Organizations have to understand the importance of personnel retention. Organizations with good planning and management can avoid or mitigate the turnover problem. Retention falls upon the executives' ability and leadership. Executives must be able to develop personnel in their organization to enhance work efficiency and effectiveness. They have to adhere to accountability and play a leadership role so that employees are satisfied on the basis of good attitudes towards organizations. Executives must also motivate employees to work with attention, devotion and sacrifice by boosting morale and fostering motivation through compensation, assignments, development of environmental conditions and working atmosphere, providing a clear career path and performance assessments and be responsible for pushing organizations forward for better growth (Jackson, Schuler, & Werner, 2009).

Retention also covers the organizational process that is not only recruiting qualified employees but also creating a quality of life and quality work environment. This must rely on the formulation of directions and management of skills, knowledge and ability, all of which are related to job engagement and decisions that may have effects on organizations later, such as restructuring or management based on standardization (Bushe, 2012, pp. 280-281). In addition, retention through motivation

does not only mean by compensation, but also the importance and realization of individual work values (Cutler, 2001).

Retention is playing a bigger role because having quality personnel is a valuable organizational resource that can lead to all operations being efficiently carried out to serve the demand of service users and to develop organizations to progress. It is, therefore, necessary for organizations to realize their goals and strategies with respect to retention, which must be efficiently operated in the same direction with organizational goals. Executives must seriously and continuously support retention to finally bring about concrete and beneficial outcomes (Olowu & Adamolekun, 2005).

### **2.1.2 Retention Concept**

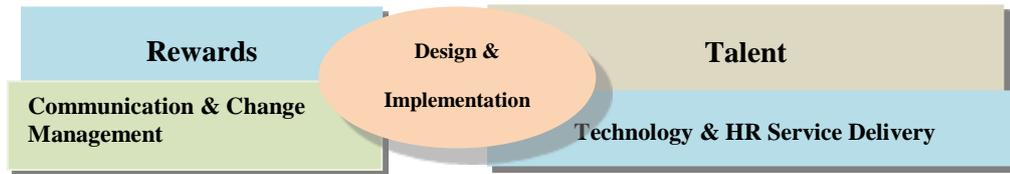
Keeping personnel working at an organization is the most important topic of organizational managers because of issues today concerning a lack of skilled personnel, economic growth and higher turnover rates (Samuel & Chipunza, 2013, p. 100). When organizations are able to retain personnel with skills, knowledge and ability, the return from such investment will become what organizations expect. Personnel tend to continue working when each person believes that the organization realizes their value and pays more attention to them and have roles that suit their skills, knowledge and ability. They will also continue working if they are accepted by colleagues and service users, and usually receive compensation as expected. Such personnel are not worried about increased responsibilities that may be assigned along with current duties. In particular, personnel still believe and feel secure about their way of life or privacy (Samuel & Chipunza, 2013, pp. 98-99).

1) Relationship between retention and turnover is a challenging task faced by various organizations. So, they have tried to improve and develop work efficiency by seeking innovation, technology and facilities to support and serve changes. An upgrade of efficiency and development is an effort to satisfy their staff. This corresponds to Locke's study (1996), which clearly stated that personnel who are satisfied with their jobs will result in the same direction with responsible tasks. An intention to resign and be absent tends to decrease. However, disappointment with compensation and progress opportunities are key variables that lead to lower

satisfaction and higher turnover (Harrington, Bean, Pintello, & Mathews, 2001, p. 11). If people are satisfied with their jobs, they continue working and are less likely to resign or be moving in an opposite direction. This is a negative relation with job satisfaction of personnel within an organization (Tett & Meyer, 1993).

The retention of personnel to continue working at an organization must take into consideration service users at the same time. This links to appearing behaviors, feeling and thought. For example, service works depend on customers' satisfaction. This links to employee's decision to resign. Service users are part of the connection to job satisfaction and resignation (Stauss, Chojnacki, Decker, & Hoffman, 2001, pp. 16-17). Although all organizations confront severe changes and competition, it is difficult to retain human resources. However, if organizations can keep a large number of talented personnel, such organizations will acquire competitive marketing advantages and be able to generate substantial income (Panoch, 2001).

2) The relationship between human resource retention and performance appraisal should be supported by using performance appraisal tools, which is the measurement and appraisal of performance in accordance with individual duties and additional responsible jobs. The appraisal is based on actual phenomenon from colleagues and supervisors. Many organizations may let external users and high-level experts participate in the appraisal. Organizations may conduct an appraisal by testing potential and routine work skills so that supervisors know the weak points and improve or develop them. This appraisal may be performed in some periods only each year and may be regularly performed every year so that personnel are eager and realize the importance of self-development. This will make each personnel focus on the importance of self-development supported by the administrators and organizations. Organizations must play a role in self-development after the appraisal. It can be done in different forms, such as giving rewards. Incentives for building morale will encourage personnel to put efforts into self-development and still work at the same organizations (Lau & Sholihin, 2005, pp. 408-409).



**Figure 2.1** Rewarding Designed and Implemented by Current Organizations

**Source:** Towers Watson, 2010.

However, organizations must regularly organize training, especially after performance appraisals. More importantly, all personnel must be trained on technology to serve changes in the current world. During employee training periods, organizations have to analyze the progress all the time. The outcomes will affect the management and implementation of organizations to meet the demand of personnel and to solve the problem of immediate resignation (Stemp, 2002, p. 98). Additionally, activities after employee appraisals may be organized in collaboration with external organizations, e.g., educational institutes and relevant or network organizations, in order to exchange thoughts and solutions that may be applied to situations within organizations (Zineldin, 2000, pp. 26-27).

Based upon the above information, it is evident that human resource retention does not concern only satisfaction, but also development of skills and ability. Otherwise, organizations may not implement or drive strategies to achieve their goals (Gberebie, 2008). This is a challenge that organizations must put an effort into in order to develop efficiency, along with the retention of talented human resources to continue working under changes. This covers employment of new personnel. This is a significant problem that organizations are facing, as they have to put in more time and effort into the retention of human resources. All organizations are switching to pay more attention to, and realize the importance of, human resource retention. One important thing is that the operation must be continuously supported by executives (Baker, 2006, pp. 46-47). Similarly, Hay is a company cluster or a large-scale private organization, which included training in the strategic plan in accordance with their personnel's demand. Organizations do not only consider benefits or services to users, but also provide opportunities for their human resources so as to develop and learn

knowledge in accordance with their careers under the administrators' vision to make all personnel and the organization grow and work happily (Gering & Conner, 2002).

### **2.1.3 Factors Affecting the Retention of Personnel**

A study of factors affecting the retention of personnel to continue working at organizations conducted by Fitz-enz (1990, p. 152) stated that the retention of personnel is not caused by one factor only, but by many factors. Management, therefore, needs to consider many important factors, namely compensation, work safety, training, organizational values, administrators' support, environment and organizational justice. This point of view is divided into each dimension, as follows:

1) Psychological dimension: The retention of personnel comprises flexible work traits and application of their skills, knowledge and ability to exhibit the real outcomes.

2) Social dimension: Social influences are regarded as an achievement when individual work is performed more efficiently than the standard. This is a real success based on the increasing positive relationship between personnel in the same organization (Kehr, 2004, p. 492). This dimension also covers the communication between personnel and colleagues, both inside and outside the organization.

3) Physical dimension involves work conditions and compensation. It means the investment of human resources or personnel that must be supported by administrators. Work design requires individual freedom. Organizations also have to realize the value of their human resources and create a personnel's outstanding performance in terms of creativity. Management must be operated by using an easy, simple and uncomplicated method that aims to enhance personnel capacity. In addition, the recruitment and selection must follow the principle that must be verifiable and consistent with the objectives to ensure that human resources have inspiration to continue working at their organization (Ongori, 2007, pp. 51-53).

Organizations have to rely on factors that include management of internal personnel to bring about maximum efficiency through the engagement and the retention of personnel (Parker & Wright, 2001, p. 74).

Walker and Macdonald (2001, pp. 367-368) mentioned the following factors that may help human resources to continue working at an organization:

- 1) Compensation and realization of the value of an employee's job.
- 2) Preparation of knowledge, ability and skills to serve challenging jobs.
- 3) Opportunity for support and learning.
- 4) Organizational atmosphere, whereby human resources are performing their tasks. These resources tend to continue working when the work atmosphere can be forecast or predicted. On the contrary, if organizations are insecure, human resources will likely resign (Zuber, 2001, p. 147).
- 5) Positive relationship with colleagues.
- 6) Balance between private and professional life.
- 7) Efficient communication that is clear, understandable and creative.

The above statements are consistent with the attitudes of Netswera, Rankhumise, and Mavundla (2005), who stated that the retention of personnel requires efficient promotion and management of human resources. Organizations must possess a communication method that lets all people take part in determining the organizational vision and mission, as well as identify the roles and responsibility of each task, and improving the atmosphere of mutual trust. In addition, leadership training must be provided and administrators' professional skills must be enhanced. Positive changes can take place when organizations realize the importance of positive changes and perform operations with a determination with continuous investment.

Although organizations try to improve factors relating to the personnel retention, personnel still decide to resign because of unsystematic management. The efficient retention of personnel requires the management ability in the following related processes: 1) inspiration process, 2) interaction process, 3) visioning process and 4) learning process (Kaliprasad, 2006). The management, in accordance with the management principle, must be carried out in line with key functions specified by Gulick and Urwick. The POSDCORB model comprises the following seven functions (Brunacini, 2015, pp. 55-56):

- 1) Planning involves determination of future works.
- 2) Organizing is concerned with managing the organizational structure related to the identification of activities, grouping the activities so as to create self-contained jobs, assignment of jobs to employees, delegation of authority so as to

enable them to perform their jobs and establishment of a network of coordinating relationships.

3) Staffing is the management of human resources or personnel within the organization, including manpower planning, direction, recruitment, placement, training, appraisal, promotion, demotion, transfer and termination.

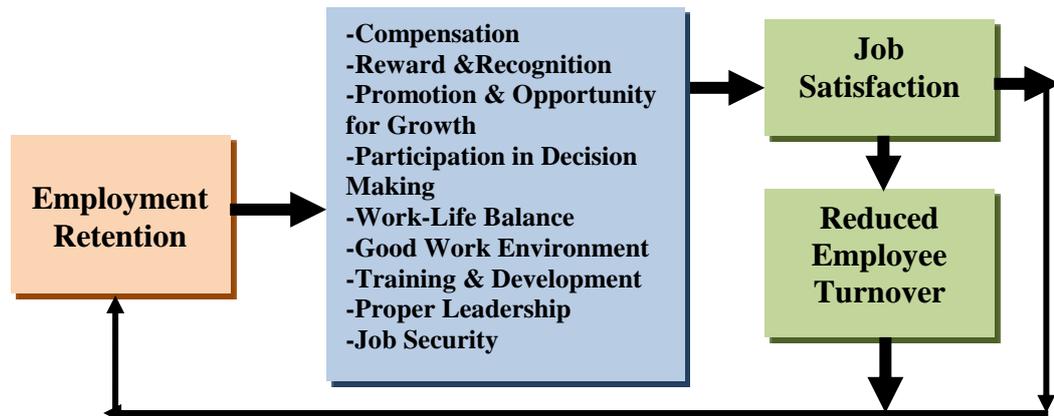
4) Directing is the function of leading the employees to perform efficiently, and contribute their optimum effort to the achievement of organizational objectives. Jobs assigned to subordinates have to be explained and clarified in written or verbal form.

5) Coordinating is the function of establishing relationships among various parts of an organization so that they all pull together in the same direction. Coordinating may be operated by an established committee or the specified organizational structure.

6) Reporting involves reporting the progress, problems, obstacles and information of all lines of command to inform, follow up and solve problems that arise.

7) Budgeting refers to planning and sufficient budget allocation for the organization and various divisions to bring about efficient jobs.

In addition, other factors, e.g. respect for individual rights, integrity and engagement, have a direct influence on personnel retention. On the other hand, factors, such as leaders, rewards, career path, skills development and training, physical work conditions and personal and professional balance, have an indirect impact on the individual decision (Hytter, 2007, pp. 59-61). Educational qualifications, seniority, outstanding learning skills, leadership and individual attitudes are individual characteristics that must support the confrontation of pressure, motivation and realization of work values, which will link continuity of work or functions at the organization. Additionally, some organizations may not have strategic plans to satisfy personnel who have different expectations (Kyndt, Dochy, Michielsens, & Moeyaert, 2009, pp. 195).



**Figure 2.2** Retaining Personnel and Creating Job Satisfaction Using Linked Factors

**Source:** Das & Baruah, 2013, p. 14.

As mentioned above, factors that are important and related to various dimensions can be explained as follows:

1) Compensation is a motivation and a technique to create morale in personnel. This can change people's intention to resign (Gardner, Van Dyne, & Pierce, 2004). This technique has been seriously used by some organizations, as compensation is the best motivator to keep personnel to continue working, except unintended resignation. Compensation is still regarded as a key factor to create engagement and mitigate the resignation problem in terms of management (Moncraz, Zhao, & Kay, 2009, pp. 451-453).

2) Rewards and recognition are provided by organizations to employees who can fulfill the organizational objectives. Any operation may be the process appreciated by those employees or may not be required (Agarwal, 1998, p. 67). Similarly, Silbert (2005) explained that rewarding is important because it can impress employees in the long-term to make them realize their value to their organization. The recognition by supervisors, executives, a team, colleagues and service users create morale and a reason for continuing working (Walker, 2001, pp. 7-9). A survey of 12,750 employees, who worked in the U.S. industrial sector and trusted their supervisors and executives, as well as general organizational conditions in 2002, indicated that perception is vital to employees because each of them needs recognition and appreciation of their products or their jobs. Rewards and recognition also

increased the market value by 16.5% compared to the year before (Watson Wyatt Worldwide, 2002). The survey of leading consulting firms around the world in the past decade about the relationship and recognition of personnel in a wide variety of industrial sectors, such as Wal-Mart, World-Com and Enron, revealed that only 51% of personnel still trusted organizational management, while confidence and trust in their executives remained only 28% (Covey, 2007).

3) Promotion and opportunity for progress are factors that have a correlation to create positive job satisfaction (Pergamit & Veum, 1989, p. 590). All employees need an opportunity for self-development and a career path. Organizations must have plans to support and develop their success to be consistent with employment (Prince, 2005, pp. 304-305). Flexible organizations usually promote employees and realize their values. As a result, these organizations can generate massive income and become successful, and at the same time they can retain their employees to work with confidence in their organizations (Eyster, Johnson, & Toder, 2008).

4) Participation in decision-making: Modern organizations that can apply innovation to their jobs will provide significant information to employees at all levels. Employees can use them in a creative manner to bring about benefits to themselves and their organization in accordance with individual ability (Hewitt, 2002). Some employees may take part in organizational decision-making and give more importance to teamwork. This leads to a work environment and atmosphere with harmony and good relations between executives and employees (Noah, 2008).

5) Work-life balance affects the retention of personnel and organizational engagement. The intervention of organizational demands in an employee's general life schedule (e.g., working during holidays) leads to individual stress and exhaustion. This corresponds to the study by the Australian Telework Advisory Committee (2006) which indicated that 70% of business organizations commonly use telecommunications to generate income, products and benefits. Such innovation can also allow employees to work from home. They also reduce some costs because of individual flexibility in work and helps employees to maintain a work-life balance along with participation in organizational jobs.

6) Good work environment: If organizations have a good work environment and atmosphere, employees will have a sense of organizational ownership (Miller, Erickson, & Yust, 2001, p. 42). Organizations with human resource policies will provide them an opportunity to meet individual needs and still keep individual privacy at the same time. The work environment and atmosphere are a motivating factor in the long-term due to the reasons connecting with engagement in the organization (Ramlall, 2003).

7) Training and development are organized with the organizational expectation to receive returns from each investment (Messmer, 2000, p. 13), in particular leaders competing in the global market. Employees have to be regularly trained and developed on innovation and modern technology to respond to challenges happening to organizations around the world. Absorption of new knowledge is necessary for survival in all work environments. Training and development are deemed as the building of expensive and valuable assets to organizations (Garg, & Rastogi, 2006, pp. 580-582). Personnel at all ages are required to be regularly trained. This can identify individual behaviors and characters, as well as develop individual techniques and skills. In other words, training is crucial to make organizations grow, especially with respect to efficient and modern operations and technology. (Mutinia, Rukangu, & Kubaison, 2015, p. 77).

8) Proper leadership by organizational executives relates to job satisfaction of personnel in the same direction (McNeese-Smith, 1995). Leadership influences job engagement and job satisfaction, as well as personnel's devotion and individual ability enhancement. In particular, this is obvious in the public sector (Brunetto & Farr-Wharton, 2002, pp. 547-548).

9) Job security: These submissions are closely related by the argument by Rosenblatt and Ruvio (1996, p. 587), who insisted that job insecurity has been found to have a direct link with increased resistance to change among employees. According to them, employees who experienced greater uncertainty about their job did not understand why the current organizational changes were needed and indicates this by low affective commitment to change. In particular, an organization's privacy policy may affect employees' feelings and immediate decision-making (Scheid, 2002).

### **2.1.4 Personnel Retention Strategy**

As for the retention of personnel to continue working for a long time, organizations have to build personnel's loyalty. This is very challenging because all employees are involved in organizational growth and development. Thus, organizations must take into consideration internal and external factors, as well as management using versatile strategies (Susskind, Borchgrevink, Kacmar, & Brymer, 2000, pp. 69-70). However, labor market conditions have to be considered. The following retention strategies by Cappelli (2002) are summarized:

1) New compensation plan: If employees feel that organizational compensation is unfair to them or cannot compete with labor markets, they may try to leave their organizations. Additionally, compensation implies recognition and importance of personnel. In case of inappropriate or too low of compensation, personnel feel that they do not have value or organizations do not give importance to their jobs. This may make personnel seek new organizations and finally resign. Compensation is, therefore, an organizational strategy that must always be reviewed and emphasized because effective compensation varies according to performance. Compensation also covers rewards and other special compensations.

2) Job redesign: Organizations must design jobs to suit the knowledge, ability and skills of their employees so that personnel are satisfied with their jobs and organizations can manage or drive the operation more efficiently. Outsourcing may be used to do this to bring about fairness and efficiency.

3) Job customization involves manpower planning in line with positions and functions. Organizations explain the description of sub-jobs and routine jobs to search for personnel with qualifications and interest that suit organizational positions. This can solve the traditional manpower management issue that ignores individual interest.

4) Strengthening social ties: Since social ties are one reason for employees to continue working, organizations play a role in supporting and promoting relationships with colleagues to reduce the turnover rate.

5) Hiring the less mobile: As talented employees are required and grabbed by all organizations, it is difficult to retain them for a long time. Organizations may recruit and employ personnel in a different manner by focusing on

those who can work for a long time instead. Although these employees may not be as talented or skillful as others, ability and skills can be developed and trained. When costs are compared, training and development have lower costs and may be more cost-effective than an effort to retain talented employees.

A creative operation circle consists of attraction or retention; employment guidelines; training and development; work design; mission; vision; values; reward systems; and leadership. All factors can explain the operation of strategies by which organizations can demonstrate values, as well as characterize an organizational environment and operation guidelines, and that organizations shall hire personnel that suit values, core competency and strategic goals. They also have to continuously develop personnel, as well as provide opportunities for all employees to grow in accordance with their potential and ability. Work design influences personnel's work, e.g., responsibility, authorization, and feedback appraisal. It is necessary that organizations adhere to organizational missions, strategies, goals and values, which are easily understood to create confidence and trust within organizations. In addition, the retention of personnel is not only a process but must be consistently operated as an entire cycle to bring about highest efficiency and maximum benefits to an organization (Lawler III, Boudreau, & Mohrman, 2006, pp. 101-107).

All strategies cannot solve problems immediately, but the operation must be carefully considered to make organizations successful. Therefore, human resource strategies are formulated because of organizational strategic plans. Organizations, therefore, have to plan human resource management, policies, operation plans and steps to achieve the goals with respect to the quantity and quality of personnel (Horwitz, 1991, p. 116). However, retention strategies for different professions and industries vary; for example, competition for compensation, work environment and human resource policies that propose a career path. All of these must be taken into consideration so that organizational personnel can work more efficiently (Tithe, 2010, p. 11). If human resource retention strategies are suitable and are seriously and continuously applied to organizations in cooperation with employees at all levels, the strategies can drive organizations to implement tasks to achieve their target objectives (Amadasu, 2003, p. 2; Gberevbie, 2008, p. 72).

In addition, having an understanding about the personnel's expectations that is linked to plans or human resource management systems and organizational goals through the communication system between human resources and organizations is deemed to be a significant strategy to drive organizations (Berger & Berger, 2004, p. 403). It is, therefore, challenging to understand the personnel's expectation to retain them and to mitigate the impact of a skilled labor shortage, which may take place in organizational sectors and may lead to national economic loss (Musah & Nkuah, 2013, p. 119).

## **2.2 Talent Management**

Talented human resources are different from general personnel, especially with respect to their ability, performance and talents. Their expectations also differ from other employees. They may not need training on operation skills like others, but they do require a chance to be responsible for challenging and risky tasks. Talented personnel need opportunities for promotion, recognition and a feeling of importance. They are self-confident and independent, and do not need much control or command from their supervisors. They have more of a chance to select organizations to work for than general employees. Some of the talented people may ignore regulations and rules. Organizations, therefore, have to set management systems to suit talented personnel so as to avoid their resignation that may affect organizational success and objectives (Thamwiriawong, 2010, p. 6).

### **2.2.1 Definition of Talented Personnel**

With respect to the study of literature and research, the definition of talented personnel can be categorized into three types, as follows:

- 1) Concerning prominent characteristics of talented personnel, Kaye and Andy (2007, p. 22) mentioned that talented human resources are defined as those having ability and specialization related to accuracy and precision. Talented personnel are creative and inspired with success-oriented motivation, adaptation ability, individual motivation, belief and leadership. In other words, their concepts are creative and outside the box or regulations. They also initiate changes and create

knowledge (Chowdhury, 2002, pp. 35-36). Their ability is more outstanding than others in terms of skills, knowledge, experience, intelligence, decision-making, attitudes, personality and self-motivation, which are the components of the learning ability, development and growth of these personnel (Michaels, Handfield-Jones, & Axelrod, 2001, p. 3). Additionally, talented personnel refer to those who have awareness in determining success by showing their skills and ability to carry out the job assigned (Sears, 2003, p. 1).

2) Performance: As stated by Lunn (1992, pp. 19-21), talented human resources are capable of creating excellent performance as a result of behaviors and natural capability. They apply to a number of few employees who can meet the objectives as specified by the organization (Berger & Berger, 2004, p. 4).

3) Performance and characteristics: As described by Huselid, Becker, and Beatty (2005), most talented human resources have an ability to learn faster than general employees. Their IQ is also higher than 130. They have both leadership and creativity. Their work records are above expectations or higher than the standard. They also can work for at least 55 hours a week by being motivated by their own inspiration by having an understanding and satisfying their service users well. Moreover, they provide advice concerning issues concerned to other people, as well as cooperate well and focus on the team goals by adhering to accuracy and morality. They also have good written and verbal communication skills. Alsakarneh and Hong (2015, p. 1038) expressed that talented human resources are regarded as those with high skills and attention, as well as excellent performance. They have specific talent to be developed by organizations to have accountability at higher positions. This is consistent with the concept developed by Chomphukham (2005, pp. 3-4), who defined that these talented groups have special ability with performance higher than others. The components of each organization may vary, such as job characteristics, strategic policies and organizational culture. They will lead themselves to more roles, can fix problems and learn quickly with eagerness, leadership and sweeping visions. In particular, they can work well with others.

It can be mentioned that talented human resources have creativity that produces better performance than general employees expected by both current and future organizations. These people are creative and need growth, whether they are

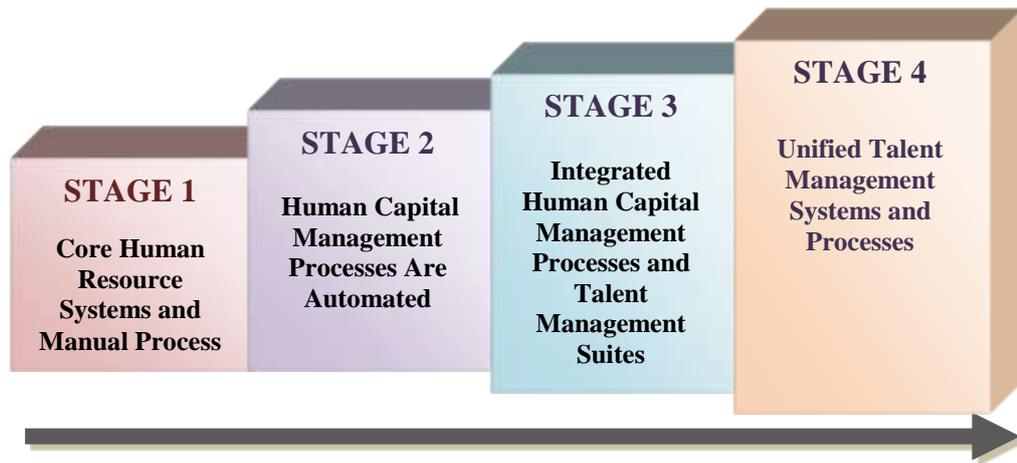
supported by organizations or not. Management of talented human resources is a management process that is continually conducted under the stress caused by the difference of these groups.

### **2.2.2 Meaning of Talented Personnel Management**

Talented personnel management is the design to create talented groups and assign them to work in significant positions within an organization. This management method covers the recruitment, retention and talent development of employees for future benefits to an organization (Iles, Chuai, & Preece, 2010, p. 181). Talented personnel management is a sub-system of organizational strategic management that involves the development of talented human resources in order to support organizational goals to develop and progress further (Rani & Joshi, 2012, p. 20). The management includes activities and processes of strategy formulation for those who hold key positions or are responsible for core competitive tasks. Talented personnel development involves the development of the structure of personnel management that continually promotes the confidence and engagement of these employees for a long time (Collings & Mellahi, 2009, p. 305). This corresponds to Stockley's concept (2005) that states it is the recruitment, selection, retention, management and development process of talented and high-performance human resources to be appointed as executives and assessed for their devotion to organizations so that the operation is successful as planned. Lockwood (2006) added that such management is an integrated design that applies strategies and systems along with production and organizational image building through improvement and development of all processes, such as recruitment, selection, retention and utilization of these human resources based on skills, knowledge and ability as required by organizations in order to serve the current and future business demands.

Therefore, it can be stated that talented personnel management is a planned and analyzed process to be consistent with sources, screening, selection, application, development and retention of talented human resources so that their performance is the most effective.

### 2.2.3 Evolution of Talented Human Resource Management



**Figure 2.3** Evolution and Growth of Management

**Source:** Oracle Corporation, 2012, p. 3.

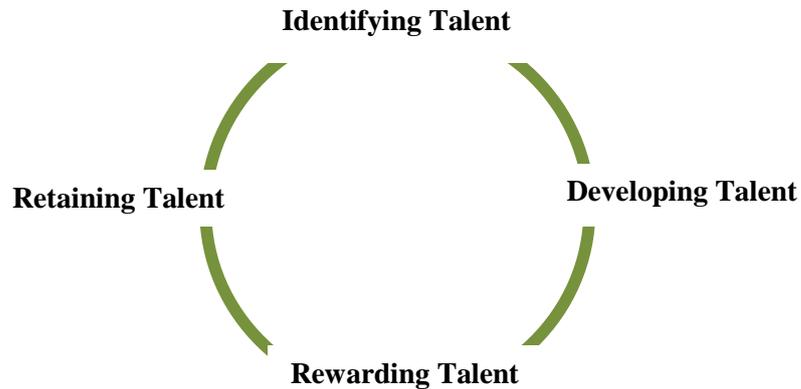
Figure 2.3 explains that the management of talented human resources has evolved from individual management, which emphasizes role-based management through the payment of salary and other benefits, to the development of strategic management which stresses more participation or partnership. It originally focused on recruitment, organizational management, compensation and welfare, and has evolved to talent management in the present time. Organizations are placing greater importance on integrated management in terms of competency and performance to bring about maximum benefits and to plan the succession of talented people. It is developing into a unique management style through the provision of services and cooperation of talented personnel via the online system using applications and platforms (Oracle Corporation, 2012, pp. 1-3).

### 2.2.4 Talent Management Concept

Livelihood and work characteristics, which are changed from the past that focused on security and employment become a long-life learning and work ability. Talent management becomes an important issue that follows (Nilsson & Ellstrm, 2012, p. 27). Worldwide situations, e.g. shortage of talented personnel, social trends and demographic trends ( decreasing birthrates and increasing average age of

population) and social responsibility (a motivation tool for foreign personnel of good quality), are significant factors affecting the complexity of decision-making in managing talented human resources worldwide, increasing people's movement related to geography and culture, permanent relocation pertaining to knowledge base and economics, including new market growth. All of these factors influence the decision-making in pushing for more concrete management of talented individuals (Vaiman, Scullion, & Collings, 2012, pp. 927-928). As global situations have changed the business concept, the employment contract period is shorter and positions are transferred more often. Organizations that are well-prepared will be able to face their competition (Rice & Evans, 2013, p. 66). Thus, organizations are searching for talented personnel more so than human resources searching for organizations. Such talented human resources help to build leadership and organizational engagement, and they provide more advantages than machinery, locations where organizations are located, such as in the city, and other types of capital. This leads to more competition at each organization (Lawler III, 2008, pp. 50-51). It has become a crisis in numerous hospitals across the world that are now confronting this problem. Each organization has to plan its success to mitigate the shortage of talented human resources and core leaders at key positions, along with the development of these people to accommodate the innovation and technology world toward unstoppable progress (Ogden, 2010, p. 80; Taha, Gajdzik, & Zaid, 2015, p. 93).

Talent management is an important and necessary tool for organizations to help these human resources to continue working. One important thing to be considered is the selection of suitable tools and strategies to be used by organizations because each organization has unique and different characteristics. Thus, they cannot copy all of the guidelines. The strategic relationship and management of talented human resources have a scope and operation guidelines, according to Gubman, as summarized below:



**Figure 2.4** Talented Human Resource Management Framework According to Gubman's Concept

**Source:** Gubman, 1998, p. 48.

Strategy operation in accordance with this guideline comprises the following four major components: (Gubman, 1998, pp. 47-48)

1) Identifying talent refers to an effort in recruiting or searching for talented human resources using individual performance appraisal method in accordance with the organizational competency model in order to differentiate talented personnel from general personnel. Each organization has different appraisal measures that are expected by each organization, e.g., education, training, work experience, Intelligence Quotient (I.Q.), personality test, inspiration, performance, leadership and technical and behavioral ability.

While the direction and trends of recruitment are changing for organizations, the following significant details are summarized (Sullivan, 2005):

(1) Focus more on the assessment, especially the expectation of online skills and techniques, as well as the online interview, which results in an improved recruitment system.

(2) Utilize emerging internet network systems, a tool to recruit talented personnel via internet social networks. Although all facts cannot be proved, these systems are a trend to replace the traditional recruitment method with a new trend that is being developed to be more complete.

(3) Plan employment: Recruitment managers are forced to be farsighted and prepare employment plans to be consistent with the retention of talented human resources.

(4) Emphasize the utilization of talented human resources by transferring them to properly perform duties in accordance with tasks.

(5) Creating a positive image of the company as an employer is an efficient recruitment strategy for the long-term, as used by large companies such as Microsoft, Dell, Starbucks and Marriott. They have stressed image building for a long time with an expectation to be a favorite organization, for which everyone wishes to work.

(6) Stress more selling points of the organization: Develop a new strategy to motivate talented personnel to work with the organization, e.g., proposing some issues or advantages compared to other organizations that make employees accept organizational conditions.

(7) Employ high-performance human resources, particularly those who are currently working and have much experience.

(8) Switch to efficient recruitment sources, e.g. get suggestions from professionals, organizing a fair to recruit professional personnel, and creating an organizational image of employment.

(9) Make an effort to recruit and retain human resources at the same time. HR divisions should assess actual factors or causes that make talented personnel resign and recruit talented personnel to mitigate impacts and restrictions arising.

(10) Subcontract with the private sector to plan recruitment strategies, such as hiring a private company to provide modern technological services.

(11) Use technology to help overcome recruitment limitations worldwide as a result of increased competition for grabbing talented human resources. Each organization has to adapt itself as well.

(12) Use temporary employment: Employment types will be changed and more employment contracts will be used, such as hiring retired people for some employment.

(13) Recommend people via internet: This method helps to recruit talented personnel by identifying and proposing incentives to meet their demands.

(14) Utilize emerging modern technology: Recruitment managers are required to use technology wisely, learn from the success and failure of systems, develop data searching and evaluation, and select recruitment strategies based on technology to support operations.

(15) Stress leadership positions, which are recruited inside and outside their own organizations or industries, especially leading private organizations, such as Dell, IBM, Toyota and Ikea, who have been recruiting these positions for a long time.

(16) Emphasize strategy-based assessments, such as employment quality, employment from competitors, investment returns and investment outputs.

(17) Follow the trend of organizational website development to make their websites more attractive, nicer, faster and more efficient.

2) Developing talent involves competency development along with career path development so that this group can clearly see its career path in preparation for their future. This may start from taking into consideration the gap between individual competency and required competency. Talent management involves self-development by organizations in accordance with their ability, which results in more reliability and update of technology. At the same time, organizations have to integrate development by emphasizing a scope that differs from general human resource management. They may focus on each function and some divisions (Lewis & Heckman, 2006, p. 139; Iles, Preece, & Chuai, 2010, p. 127). The development method that provides the best result consists of the following operations: (Deloitte Development, 2004)

(1) Assignment of challenging tasks within the scope of new tasks affecting the overall organization or tasks relating to changes in organizational strategies. These tasks will help talented personnel to develop their skills in management and result in solutions to more complicated problems under wider scope of works and more responsibility than in the past.

(2) Gain experience in short-term work, such as participating in significant conferences and being team leaders for some projects.

(3) Consulting and coaching help talented personnel to learn and exchange experiences to promote work efficiency and create internal and external networks.

Given the above reasons, organizations have to focus on talented personnel and adhere to the major tasks for which they are responsible because talented human resources will not be able to perform efficient and effective work all the time if they do not have clear procedures, in terms of job characteristics or expected outputs. In addition, talented personnel are not skilled in all fields but they have an idea to always develop themselves to better serve organizational functions and missions (Dessler, 2003, pp. 20-22).

3) Rewarding talent is a suitable investment in the talent pool by promoting them to develop motivation so that they will regularly devote themselves and create excellent performance for their organizations. Rewards can be categorized into two types, as follows (DeCenzo & Robbins, 1994, pp. 48-51; Kenneth & Tymon, 1997, p. 81):

(1) Internal rewards make talented personnel proud and determined to meet the specified target. Success is regarded as a response to individual needs by assigning works with more responsibility, as well as being accepted by supervisors and colleagues. This will result in self-pride, which builds a good attitude of talented employees towards organizational tasks.

(2) External rewards are tangible and different from internal rewards. They may involve compensation from general people or certificates, as well as state-of-art technology and equipment provided by organizations, including the privilege to use special facilities, e.g., special parking spaces in the company parking lot. They also include rewards due to organizational membership, such as rewards for working for a long time, or more vacation time in line with their work period. More importantly, rewards are provided in accordance with their performance. Organizations may formulate challenging goals so that talented human resources are eager and determined to acquire valuable rewards to be consistent with such challenges.

4) Retaining talent is managing motivation, along with giving importance to talent. This is important in order to provide competitive organizational

advantages, such as privileges for holding shares so that these people have the feeling of organizational ownership or a competitive salary in the market. Pay for performance is a connection between organizational profits and competency appraisal to increase performance and to build motivation of talented personnel to continue working (Thamwiriya Wong, 2010, p. 12) because they are very valuable and cannot be copied or replaced. They are a rare group in society.

Large-scale organizations have lost talented human resources because of the following reasons (Jackson, 2011):

(1) Core organizational functions and operations are usually performed in an anxious and disappointing manner.

(2) Failure in searching for new projects to drive organizational strategies. Talented human resources can carry out works without relying on power or money. But most of them want to create performance to be part of organizational changes. While organizations' HR personnel are responsible for a large number of projects, they cannot initiate such projects to serve these people immediately. Therefore, the talented personnel may lack motivation and finally resign.

(3) Lack of comments about inefficient work and inconsistent performance may pose questions and concerns related to organizational visions and farsightedness to talented personnel.

(4) Lack of discussions about occupational development: When the requirement of self-development and the future of their profession is not clear or is not responded to, many talented employees begin to search for jobs in other organizations and decide to resign later.

(5) Raising dreams: Talented human resources are pleased and eager with challenging, interesting and beneficial jobs. Therefore, organizations have to provide such jobs for them to motivate them and develop their talent using organizational strategies because they will devote themselves based on self-pride and recognition by all employees in the organization (Reichheld, 1996, p. 18).

Given the reasons discussed above, organizations still have to review their strategies using the Deming cycle, or PDCA, comprising planning, doing, checking and acting (Prasongthan, 2015, p. 148). In addition, key factors to be considered along with talent management include the following (Thamwiriya Wong, 2010, p. 13):

- 1) Serious support from organizational executives.
- 2) Connect to an ability to the organizational missions and core values, which will push for behaviors required by organizations.
- 3) Conduct direct and indirect surveys of the stakeholders' demands, including customers or organizational staff, by posing questions about core competencies and significant behaviors that all employees must exhibit to drive organizations to meet their target goals.

Apart from the PDCA to review the strategies, the retention of talented human resources involves the creation of an attractive workplace so they continue to work at their organizations. As mentioned by Ed Michael et al, the attraction of talented personnel can be compared to bees that want nectar from pollen. In other words, talented personnel are compared to bees and nectar is compared to employee value proposition (EVP). To make talented personnel realize organizational ability to meet their expectations, EVP components consist of challenging and key work characteristics, systematic organizations, executives who satisfy their demands and opportunities to create security and receive good compensation because after bees have found satisfactory nectar sources, they will not fly to other places (Ed Michael et al, 2000 referred to by Sirapatsorn Wongthongdee, 2018 p. 119). Therefore, organizations have to meet different demands of human resources and have an ability to compete with other agencies, as well as retain talented personnel. EVP involves the design of specific employment packages to meet the talented target groups who have different requirements.

### **2.2.5 Benefits from Efficient Management of Talented Personnel**

Talent management provides benefits to both organizations and human resources, as summarized below.

- 1) Organizational level: Organizations can successfully carry out their mission as specified. Talented human resources choose to continue working at their organizations and develop other people to have more talent, too. New innovation is also the organization's property because each talent will try to continually create outputs and as a result, organizations inherit a good culture and values through the position succession process starting from organizational leaders, executives and operators.

2) Individual level: Talented human resources will continuously have opportunities and challenging tasks. This is beneficial in order to enhance talent and their career paths in the long term. These people also learn how to manage themselves to be successful through the support of executives and colleagues. Additionally, they will be more satisfied with their jobs because they realize the organizational recognition attention, as well as clearly understanding their career path.

## **2.3 Turnover**

Turnover is a significant problem that organizations are facing because human resources are an important capital in terms of skills, knowledge, talent and training, especially in the current era of increased competition with state-of-art technology.

### **2.3.1 Meaning of Turnover**

To retain human resources, the causes and factors of the turnover due to various reasons that have been ignored by many organizations must be studied. If these problems are not fixed, organizations will not be able to continue their operations (Steel, Griffeth, & Hom, 2002, p. 151). To better understand the issue of turnover, the meaning of turnover must be understood in order to explain its content, as follows:

Gaertner and Nollen (1992) explained that turnover is an intended employees' behavior caused by perception of organizational policies and labor markets. They believe that if they resign, they will receive better proposals than in the past. It is the final process of reflection to remove themselves from their organization's responsibility (Tett & Meyer, 1993). At the same time, Pigors and Myers (1981, p. 290) described that turnover is the organizational termination of an employee's employment, which may be due to discharge, retirement, death or voluntary resignation, which result in the discontinuation of work.

Turnover in terms of industrial psychology can be categorized into two definitions, as follows: (Bluedorn, 1980, p. 272)

1) General direction involves the recruitment of new staff to replace employees who have just resigned.

2) Specific direction involves changes in personnel or organizational members to compete with other organizations in the same sector.

Porter, Lawler III, and Hackman (1975, pp. 35-39) divided turnover into the following four types:

1) Voluntary individual-initiated turnover pertains to an individual's decision-making because of individual needs that are not forced by others.

2) Involuntary individual-initiated turnover relates to an individual's decision-making because of the individual's pressure related to their environment, e.g., women have a new baby born, or the transfer of their position to accompany family members, although they wish to continue working at the same organization (or their organization also wishes that they continue working).

3) Involuntary organization-initiated turnover involves the economic pressure to reduce the number of staff and to decrease organizational costs and expenses.

4) Voluntary organization-initiated turnover involves organizational decision-making in terminating the organizational membership because of staff's inefficiency.

Turnover includes both voluntary individual-initiated turnover due to individual reasons based on self-assessment, comparison and social norms, relationship between input and output factors, and recognition, as well as involuntary organization-initiated turnover (Sayles & Strauss, 1980, p. 344).

Additionally, turnover is both avoidable and unavoidable. It covers work conditions at an organization. If employees have to perform their duties under the strict supervision of employers in term of work hours, compensation and benefits, those employees under such circumstances may avoid such pressure by resigning. Some situations, such as health problems, retirement and death are causes of the unavoidable turnover.

Dalton, Krackhardt, and Porter (1981) indicated that turnover can be categorized into three dimensions, as follows:

1) Classification in accordance with individual voluntary turnover.

2) Classification in accordance with impacts from turnover on organizations: If employees work inefficiently, organizations will not seek to stop the

resignation. On the contrary, if individual resignations affect organizations, organizations will try to retain them because they are key personnel who create much value to the organizations. Therefore, organizations try to maintain benefits and prevent damages that may have an impact.

3) Classification in accordance with organizational control ability refers to avoidable resignation, or unavoidable in some situations.

In summary, resignation refers to the organization's termination of contract, which may force personnel to resign. At the same time, new staff is hired to be responsible for the tasks at the same position. It may involve a rotation of employees who used to work at the organization or new employees who have no experience in that organization or any other organization. Resignation is a general dynamic phenomenon, where labor is rotated through the entry and exit of personnel from one organization to another organization. It is the individual idea to resign at the moment and decide to seek a new option by planning to resign from the current job in order to go to another organization. This is voluntary individual turnover. In addition, turnover is an indicator to assess the quality of the work environment at each organization.

### **2.3.2 Turnover Concept**

The study of the turnover concept in various dimensions can be explained as follows:

2.3.2.1 The behavioral approach relates to turnover behavior by seeking the causes and effects of such turnover. Similarly, Lawler III's study (1971, p. 105) stated that usual behaviors, e.g., complaining and strike, are compared to a signal indicating the imminent individual resignation. If organizations do not try to solve problems, these problems may lead to resignation and affect the efficiency of outputs as well. Meanwhile, Mowday, Porter, and Steers (1982, pp. 45-50) mentioned that individual turnover is caused by major factors, namely, affective responses to the job, which are the cause of resignation, e.g., job satisfaction and engagement and 2) non-work factors, such as marriage commitments and family ties.

Price's study (2001, pp. 601-603) cited that turnover is linked to the associated factors comprising:

1) Environmental factors, which include: 1) cooperation from organizational personnel that is referred to as a personnel relationship, and 2) opportunity to choose a new job that is more interesting than the current one.

2) Organizational factors consist of the following major reasons:

(1) Compensation is what employees deserve to receive with respect to salary, special allowance and other welfare benefits. It motivates employees to have morale to work more, while it can also deteriorate the quality of work if the compensation is unfair or not as expected.

(2) Personnel's participation makes each person feel engaged and be part of the organization. This indicates the importance of personnel, as well as justice and equity that is accessible by personnel.

(3) Personnel role overload or work overload because of difficult and complicated jobs beyond their routine work.

(4) Routine work involves jobs that employees have to perform regularly or almost every day.

(5) Communication includes communication types and tools in order to exchange information within organizations and to create an understanding and good feelings between employees. This can provide individual job satisfaction to achieve the goals defined by organizations.

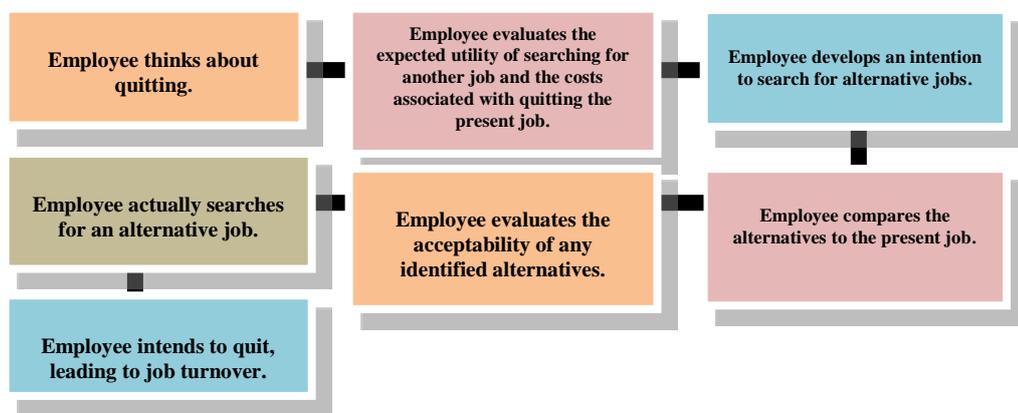
(6) Centralization means bringing things to one central place or under unified control. In a centralized system, most decisions are made by managers only, so personnel feel uncomfortable and inflexible.

(7) Promotion and support refers to opportunity for progress and success, such as support to further study or training to gain more knowledge and performance, and promotion.

3) Personnel factors refer to the level of job satisfaction that links chances for resignation because resignation is caused when people have a sour attitude or feel that they are taken advantage of by organizations for which they are working, so they are unsatisfied to take on responsibility for further tasks (Bluedorn, 1982, pp. 77-78). Their level of satisfaction may depend on stress, pressure related to roles and responsibilities, compensation, unity within their organization, and expectations. All of these are significantly related to resignation (Horn & Griffeth,

1995, pp.40-41). Even though job satisfaction and resignation may not have a direct relationship, job dissatisfaction relates to the intention to resign, which has a direct effect on jobs that result in individual resignation (Mobley, Horner, & Hollingworth, 1978, pp. 409-410).

As for turnover at this moment, behaviors due to intended resignation may be observed and categorized, as follows (Mobley, 1977, pp. 238-239; Kaur, Mohindru, & Bharwaj, 2013):



**Figure 2.5** Employee's Behaviors Indicating an Intention to Resign

**Source:** Mobley, 1977, pp. 238-239.

1) Direct resignation behavior: Personnel will decide to resign immediately if they feel they want to quit despite having no other options.

2) Behavior of searching for other options: If personnel intend to resign, they will search for alternative jobs after quitting so that they have a new job. However, the chance for searching for other jobs depends on individual characteristics, e.g., age, gender, occupation, economic conditions and market labor at that time.

3) Other behaviors: When personnel realize that they cannot search for other alternative jobs or have few options, they will not resign but will have other behaviors, such as absence, an uneager work ethic and defense mechanisms to reduce their concern and frustration caused by the inability to resign. They will have negative attitudes towards their organizations, but they have to endure this because of no potential for working at other organizations.

Concerning the steps caused by intended resignation, the following individual behaviors can be summarized (PwC Saragota, 2012):

1) Eagerness to work at the beginning but after working for a while, they are disappointed with some issues that are not implemented as agreed.

2) Questions concerning the decision to continue working at this organization usually arise during the period of adapting to the work environment and organizational culture. If they cannot adapt, they will think of resigning.

3) Thinking of resigning but it does not affect any practice as, they may review their thinking and most personnel do not want to change jobs so often.

4) Better changes, e.g., a change in work styles so that they can continue working for a long time but they still think of resignation to solve their problems.

5) Solving problems by resigning: Personnel still think of resignation to solve this problem, but the thinking process may change depending on the organizational environment at that time, especially their relationship with colleagues. They will take into consideration risks or uncertainty in searching for new jobs.

6) Analyzing costs and risks related to resignation.

7) Waiting for other organizations to offer new jobs instead of sending applications to other organizations themselves. However, if any organization offers a new job that is more interesting than the current one, they may tend to resign to work with that organization right away.

8) Starting to search for a new job: Personnel are eager to seek a new job because they feel bored or are more pressured by their existing work and environment.

9) Seriously searching for new jobs and finally succeeding in finding a new one.

10) Getting a new job offer and immediately accepting it.

11) Quitting to start a new job.

12) Resigning despite not getting a new job may take place or selecting the final option, in which they still have to continue working at the same place.

13) Continue performing their functions at the organization without eagerness or devotion, particularly personnel who lack self-confidence and are afraid of unemployment may select and make a decision in doing this. But these personnel have negative feelings towards their organization and have to endure this situation because they do not have potential to work with other organizations. If any organization has many of these personnel, the organizational potential will recede in accordance with their personnel.

Despite few research works on resignation behaviors, it is necessary to study individual behaviors within organizations and the reasons for absence at the same time (Maertz & Campion, 1998, p. 566).

2.3.2.2 The economic approach described labor situations in the labor market that influence the individual decision to resign. This corresponds to Bowey and Fry's study on economic academics who have an attitude that if business goes well, a lot of jobs will be generated. In other words, the employment rate will be higher. At the same time, the opportunity for changes or new jobs will be high, too. In case of labor shortage or instances where the labor demand remains stagnant, opportunity for changes or new jobs will be low. It can be stated that the turnover rate relates to the opportunity for changes or new jobs. In the case of a low employment rate and a high demand in the labor market, this can lead to a decision to change jobs. On the contrary, in case of a high unemployment rate, personnel prefer to continue working at the same organization.

2.3.2.3 The push-pull approach is a mixed concept between behaviors and economics linking to key factors for resignation (Shilliar & Freudenberg, 1982, pp. 847-849).

1) Push factors are internal factors influencing job dissatisfaction of personnel, such as compensation, relationship with colleagues and internal communication.

2) Pull factors are the opposite of push factors, which motivate personnel from other organizations to move to work for a new organization, e.g., opportunity for growth or higher compensation.

Push factors are secondary factors affecting the decision to resign and searching for new options based on the comparison of characteristics of each organization, while pull factors are the most important factor for decision-making because all personnel expect a better option that can create job satisfaction for them (Mano-Negrin & Kirschenbaum, 1999, p. 692).

### **2.3.3 Reasons for Resignation**

Understanding the reasons for resignation is the first step that tries to mitigate the turnover rate. To enhance work efficiency, organizations have to identify the factors that make personnel still work at organizations, as well as the real factor for intended individual resignation. Organizations also must understand that these factors relate to individual personality or work process under the supervision (CPID, 2006). The reasons for resignation based upon human needs that vary according to the search for satisfaction to respond to their demands are detailed as follows (Lee, Park, & Lee, 2013, pp. 1717-1719):

1) Need for trust is an individual expectation of executives' sincerity in efficient management and allowing all employees to take part in expressing their ideas for organizational development, as well as fair administration in all issues, such as punishment, compensation, self-development, operations as agreed to by personnel, as well as suitable tools or processes along with the effective recruitment of employees (Steers & Porter, 1991, pp. 173-177).

2) Need to have hope: All personnel need progress and they expect to get this chance from their organization, especially efficient training and development, higher positions and higher salary. If they have less trust, such as staff being discharged or less compensation than other organizations, they will feel dissatisfied, bored with their jobs and finally decide to quit (Morgan & Zeffane, 2003, pp. 56-57).

3) Need to feel a sense of worth: All personnel want their organization to believe that they devote themselves and deserve to receive worthwhile compensation. Organizations have to make all personnel believe that they realize their

value. This must be continually carried out by organizations to provide them positive morale.

4) Need to feel competent: This involves the individual expectation of being responsible for jobs or tasks in accordance with their competency, in particular talented groups who want challenging jobs to completely show their capability to be accepted by all staff. Therefore, organizations have to support them in order to suit each personnel so that they can continuously create better and more efficient performance based on self-pride to their organization.

Although the standard of resignation understanding has not been studied yet, these causes can be beneficial to the forecast of damages that may arise due to individual resignation. If organizations give importance to and understand these causes, this problem can be mitigated (Morrell, Loan-Clark, & Wilkinson, 2004, pp. 163-165).

### **2.3.4 Impacts of Resignation**

Personnel resignation affects many sectors at all levels, including the impacts on personnel who decide to quit, as there will be both direct and indirect effects, as summarized below. (Mobley, 1982, pp. 110-115)

2.3.4.1 Individual impacts: Personnel who decide to quit may be motivated by other organizations, such as higher compensation and more challenging jobs. Those who switch to work with a new organization may have more self-confidence, while those who remain at their place of work will have chance to be responsible for or to hold higher positions. On the other hand, resignation may let personnel who continue working find actual causes of the resignation and try to seek new options as well. Resignation is not necessarily concerned with responsible jobs, but may be due to private reasons, e.g., family reasons. Resignation may lead to some losses that they may have received from their organization in the future had they decided to stay, such as seniority, rewards and other benefits. At the same time, it may affect mental health at the beginning as a result of resignation and transfer to a new organization. If the impacts cannot be managed or controlled, the problem concerning the relationship with colleagues and surrounding people may follow.

2.3.4.2 Impacts on organizations: Organizations may acquire more efficient personnel or those who create new knowledge, concepts and application of new technology to their organization. Changes in jobs may encourage executives to change organizations in a better direction by reducing some behaviors and deserting undesirable jobs. In addition, this can decrease conflicts within organizations. Resignation may be the last method to solve conflict problems within organizations.

1) Resignation may result in increasing costs, including direct costs, such as recruitment of new employees, recruitment process, selection process and interview of competent personnel, training and development of new personnel. As new employees cannot perform their work as efficiently as the former ones, they have to be trained to enhance their ability to work efficiently and meet the organizational goals. They also have to learn and adapt themselves to the organizational environment (Inthusmith, 2000, pp. 22-24). Lucas (2012) estimated the costs lost for resignation were 25 percent of the former salary of that resigning employee. For example, if the resigning employee's monthly salary is 20,000 US dollars, organizations will lose increasing costs of about 5,000 US dollars per month. If the number of resigning employees were to reach 30, a total of 150,000 US dollars or 1.8 million US dollars per year or 5 percent of the total organizational budget would be lost. This cost will increase 1-2 percent each year. Organizations also have to pay indirect costs, e.g., salary increases for organizational employees and impacts on increasing work. In addition, they include implicit costs during the new employee training period because it means organizational time loss or opportunity loss.

2) Work quality that may decrease: New employees may not be able to work as efficiently as the former ones. Thus, organizations may lose the trust or loyalty of their service users who had a good relationship with the former employee (Darmon, 1990, pp. 47-48).

3) Business opportunity loss: If the organizational turnover rate is high, organizations may be questioned by the public about having a poor image. Additionally, resignation can interrupt some business and provide an opportunity for competitors, as organizations have lost competent employees. Finally, this may affect organizations in the future.

4) Trust of organizational employees: Since colleagues have resigned, this may affect employees' morale and many employees may have poor attitudes towards their organization. At the same time, various employees may have passive behaviors and try to seek new options. This will stimulate the turnover trend to be more severe due to the reason of realization of other options for work life in society (Balfour & Neff, 1993, pp. 474-476).

5) Other relevant strategies: Resignation is an invisible behavior and some information is lacking that can clearly explain all causes. It may also affect organizational strategies because the tasks assigned to the former employees stop for a while. Thus, executives may behave improperly and bring about negative impacts on organizations.

2.3.4.3 Social impacts, especially in expanding business organizations, which are part of the national economic motion. The transfer or changes in jobs to other organizations which offer higher compensation may affect the average increasing income of the total population. However, the turnover also leads to higher production costs for organizations in the business sector and the severe and a continuous trend of market competition. It may also increase the price of products. But organizations cannot expand their businesses because of a shortage of personnel and discontinuous operations, along with an operation that may not correspond to the specified organizational strategies.

The turnover has both social and economic impacts on the country, especially the sectors that need labor markets or face a severe shortage of labor, such as doctors. It also affects organizations in terms of management, image and production. Therefore, organizations have to study actual factors relating to resignation to prevent and mitigate individual resignations in their organization.

## **2.4 Job Satisfaction**

Job satisfaction is what organizations have to focus on and create in order to make work efficient and achieve the specified goals.

### **2.4.1 Meaning of Job Satisfaction**

Job satisfaction can be classified into two directions:

- 1) Employees' attitudes towards jobs are regarded as an individual belief caused by the response to feelings about work conditions, including overall job satisfaction and job facet satisfaction in career paths, income or compensation, supervision, work conditions, job characteristics and colleagues. The satisfaction level is caused by individual jobs (Munchinsky, 2002, p. 58; Spector, 2011, p. 33) that can be used to differentiate between the existing factors and the expected ones. Thus, job satisfaction is what employees expect from their jobs and what they actually receive. This covers the overall job satisfaction and job facet satisfaction (Lawler III, Hackman, & Kaufman 1973, p. 49). This is consistent with Davis (2011)'s explanation that this satisfaction must include quality, conditions and feeling levels as a result of individual interest in the responsible job. In other words, job satisfaction is an individual attitude to surrounding objects linking to individual feelings of success in terms of quantity and quality. It is caused by the individual motivation related to efforts in achieving the specified goal to meet the expectations. If the goals are achieved, job satisfaction will appear. This involves feedback in the beginning and becomes a rotation cycle again (Mullins, 2002, p. 244).



**Figure 2.6** Mullins' Concept of Job Satisfaction

**Source:** Mullins, 2002, p. 244.

In addition, job satisfaction is caused by the perception of the job, which can be classified into three types, namely 1) satisfaction that meets individual emotions related to operating the job, 2) satisfaction caused by fair compensation compared to responsible jobs and 3) satisfaction covering all organizational issues, including jobs, career path, compensation, command and colleagues (Luthans, Avolio, Avey, & Norman, 2007, pp. 548-551).

2) An individual feeling that involves motivation is a positive individual feeling caused by work experience and job detail assessment. It comprises happiness caused by performing the assigned job and receiving the identified compensation. Additionally, it is caused by the assessment of feeling based on experience. This is expressed by satisfaction or dissatisfaction and becomes a cause for drive or a stimulating force of determination. This leads to a change in morale for further operations (Brief & Weiss, 2002, pp. 280-282). It can be mentioned that this satisfaction is an expression or positive feeling of organizational employees to their operation (Arnold, Feldman, & Purbhoo, 1985, pp. 955-956). It is an individual feeling as a result of recognition of their performance or experience in the assignment to carry out such work (Locke, 1991, p. 288).

Based upon information gathered through research, it can be stated that job satisfaction is an attitude or feeling one has about his or her job or responsibility. If personnel have positive attitudes or feelings about their job and organizational environment, they will also have job satisfaction and will devote their physical and mental efforts, intelligence and private time to responsible functions and tasks. On the other hand, if they have negative attitudes or feelings, job dissatisfaction will follow.

Evident behaviors, e.g., uneagerness, delayed work or not doing as ordered. More importantly, the definition of job satisfaction covers the level or comparison of the response between individual expectation and the actual result.

### **2.4.2 Concept of Job Satisfaction**

After comparing all of the concepts relating to job satisfaction, such concepts have been categorized, as shown below (Green & Craft, 1979, p. 270).

1) Satisfaction causes performance refers to personnel who are satisfied with their jobs and positive performance will be created. This is in line with the concept of Vroom.

2) Performance causes satisfaction means that good performance will satisfy personnel according to the concept of Porter and Lawler III.

3) Reward as a causal factor is caused by satisfaction and work characteristics in accordance with Brayfield and Crockett's concept.

The classification of the concepts of satisfaction in various dimensions, as analyzed from research, is summarized as follows: (Mumford, 1972, pp. 4-5)

1) The Psychological Need School is based on the notion that job satisfaction that is individual need that requires job success and recognition; for example, the concept of Herzberg.

2) The Leadership School is based on the notion of job satisfaction and leaders' reaction to subordinates. This corresponds to Mouton's concept.

3) Effort-Reward Bargain takes into consideration job satisfaction with compensation (e.g., salary) and other compensations. This is in line with the concept of the Alliance Manchester Business School.

4) The Management Ideology School takes into consideration job satisfaction with organizational management behaviors; for example, the concept of Crozier and Gouldner.

5) Work Content and Job Design: Job satisfaction is caused by the appearing content of the job according to the concept of Tavistock Institute.

Mumford compared the above concepts and suggested that they can be integrated in order to analyze them in all dimensions for maximum efficiency.

### 2.4.3 Satisfaction Factors

Job satisfaction can make the operation and organizations more successful than organizations that do not have job satisfaction. Job satisfaction components can be summarized, as follows: (Harrell & Stahl, 1964, pp. 247-251)

#### 2.4.3.1 Individual Factors are Individual Qualifications or Personality Relating to Work

1) Experience: Personnel with more skills and expertise will be satisfied with their jobs.

2) Gender: Job characteristics must be also considered. For example, women are expert on and satisfied with delicate jobs compared to men. But women are usually absent and resign more often than men because they have to take care of their family members. Other factors, e.g., ambition and financial needs, must also be taken into account.

3) The number of subordinates: Colleagues have an effect on individual attitudes at an organization, particularly jobs that require multi-skills. All employees must be united under the same goal to ensure successful operation.

4) Age refers to the period of time and work experience. More ages may mean more time and more experience. Aging employees are often absent because of necessary and unavoidable reasons, such as health problems. But young employees are usually absent without any reasonable cause. Aging employees are more satisfied with their professions. On the other hand, in case of non-professional jobs, they have less job satisfaction in an opposite direction with increasing ages. However, organizations must consider other factors, too, such as job characteristics and work situations.

5) Work hours: In general, organizational employees are usually more satisfied with jobs performed during normal work periods rather than periods in which they work alone.

6) Intelligence: Job characteristics and other situations must be considered. Different satisfactions are not found in some jobs, but talented employees will be likely to be tired with routine jobs and have poor attitudes to such jobs because they feel that such jobs are not challenging and not suitable for their ability.

7) Education may not imply much difference. Job difficulty and their ability must be taken into consideration. Doctors, engineers and lawyers are more satisfied with their profession than general workers.

8) Personality is a result of heredity, the environment and individual situations, such as nurturing, physical conditions, life experiences, etc. One important tool is nervous systems or mental health problems. If employees live or work under restricted conditions, they may easily confront stress, be usually frustrated, worried about and tired of their surroundings. All of these indicate job dissatisfaction.

9) Compensation: Employees receive higher salary than living status. In other words, they do not need to struggle to do other supplementary occupations. Therefore, a high salary may help them be satisfied with and devote themselves more to their responsible jobs. Since employees are not affected by economic conditions, compensation is a symbol of success and reflects the executives' attention. In particular, as for employees working in the public sector, compensation is the most important factor for job satisfaction (Sokoya, 2000).

10) Motivation is a wish to put more effort into work. This means motivation or an internal need expressed by each person. Individual motivation will strongly push for organizational operation. If organizations can create real individual motivation, they will succeed faster.

11) Job interest: Employees who are interested in jobs that require certain skills will be more satisfied than those who do not give importance to their responsible jobs or employees who have to do jobs that do not require certain skills.

#### 2.4.3.2 Factors in Responsible Jobs

1) Job characteristics includes challenging, difficult, new and interesting jobs; quantity of work; chances for learning new things, opportunity for success under perception and responsibility; as well as work control and work methods. That means personnel can carry out the entire process, as well as realize benefits and job creation, all of which are factors in helping personnel to be satisfied with their jobs. This corresponds to the study by Wotruba and Tyagi (1991), who discovered that marketing staff at all levels of direct sales businesses in Kerala State,

India consider characteristics related to positions and functions that will lead to job satisfaction as expected due to age conditions. If jobs are not challenging or are not related to other factors, they will intend to resign immediately.

2) Work skills: Job expertise must be considered along with job characteristics, compensation and professional status.

3) Professional status: In particular, during a sound economic period, many personnel are satisfied with their operating jobs but wish to change organizations to get promotion or higher positions. Thus, autonomy and job pride must be taken into consideration when factoring in professional status because professional status depends not only the individual, but also the social context. Each organization emphasizes professional status differently. The changing period of time also changes attitudes to professional status, too.

4) Size of organizations: Personnel working in small organizations will feel more satisfied with their jobs than those in large organizations. In addition, they have chances to know each other and all of them are familiar with one another, feel warm and are friendly. This results in cooperation in successfully completing work.

5) Distance between residence and workplace is a factor affecting job satisfaction because it can result in exhaustion due to traffic, transportation and travel time, which affect individual ways of life, including their privacy and work life. If they have to face them regularly, they may affect their job satisfaction.

6) Topography is crucial to job satisfaction. Personnel working at organizations located in big cities will have less job satisfaction than those in small cities because of a closer relationship with employees in small cities than those in large cities.

7) Work structure covers clarity and job details, including performance standards. If work structures are clear, it will be more convenient for operators to work and to avoid mistakes or failure under more efficient control. These are factors that have positive attitudes to responsible jobs. If work structures are clear and personnel understand the organizational specified goals, they can carry out their

work to meet the standards and will have job satisfaction through organizational facilitation.

#### 2.4.3.3 Management Factors

1) Mental stability involves individual mental conditions and feelings caused by perception or assessment of organizational factors indicating definite employment conditions, employment guarantee and compensation during working and after resigning. Although these factors are not considered now, large organizations still focus on these factors, such as life-long employment because job security is regarded as a type of welfare, especially employment of retired staff in accordance with individual demands and interests. This stability arouses individual diligence and strength in working more efficiently.

2) Income: Executives try to reduce dissatisfaction of personnel due to economic problems faced by many countries. Income becomes a first priority factor considered. Various employees in the public sector quit their organizations to work in the private sector because of income.

3) Benefits: Many executives try to create job satisfaction for organizational staff by providing them benefits, but many of them do not emphasize benefits rather than career path because tuition fees, health care costs and other welfare are grouped in security factors.

4) Career path refers to an opportunity for personnel to be promoted to a higher position by taking the shortest time or shorter than normal time from one position to a higher position. It also includes a chance for additional education or training. Aging staff are not interested in this factor like young staff, while those with high education but without expertise emphasize career path rather than those relying on expertise but without high education.

5) Authority is the power assigned by organizations to give orders or supervise the operation to be successful. This power is a tool to facilitate tasks. If the authority is obvious and clear, all personnel can easily work with understanding of the same goal. This will lead to job satisfaction.

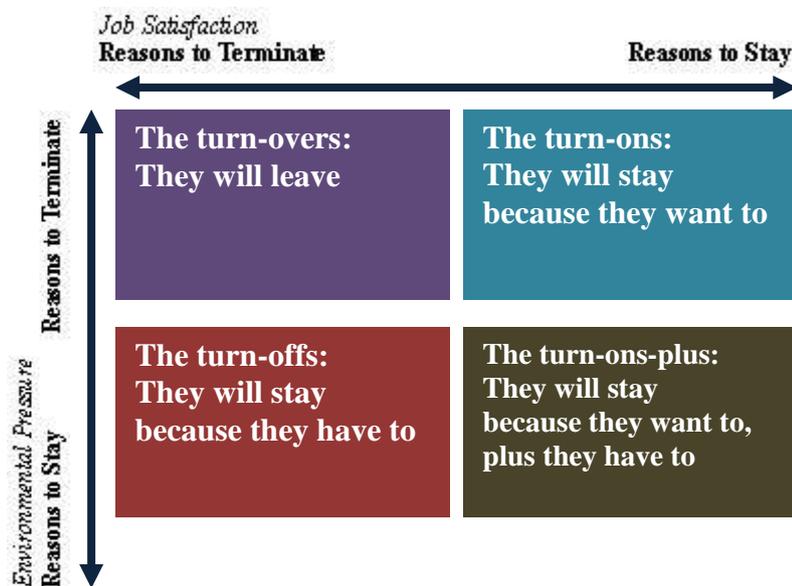
6) Work conditions, e.g., light, climate, work hours, noise and the overall environment covering organizational provision of tools and equipment. In addition, many organizations realize the importance of providing a nursery for

children and ageing people to reduce individual absences from work and stress problems related to timesharing between work and family (Schultz, 2002).

7) Colleagues: A good relationship with colleagues is one factor pertaining to job satisfaction.

8) Coaching: Coachers usually stress feelings to organizations. Some individual attitudes depend on understanding and the relationship with coachers and coachees.

With respect to the above factors, trends of job satisfaction under organizational pressure are summarized and compared, as follows:



**Figure 2.7** Relations between Job Satisfaction and Organizational Pressure

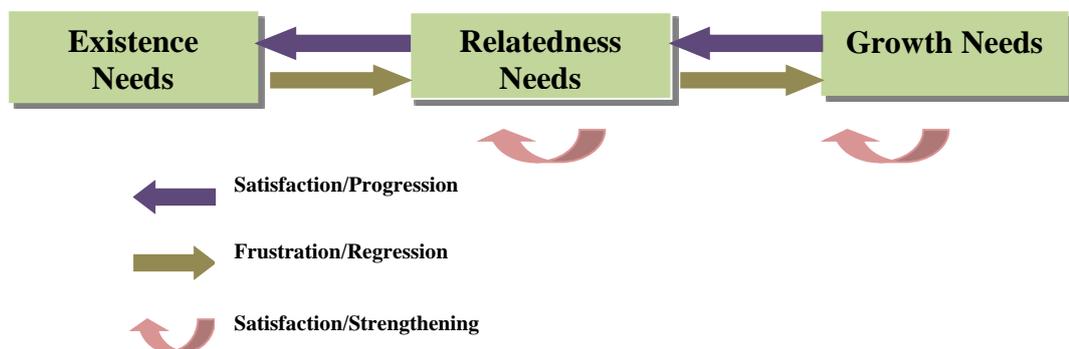
**Source:** Flowers and Hughes, 1973.

Job demand is a motivation that makes individuals feel satisfied. The motivation may be caused by intrinsic and extrinsic factors. Thus, personnel require motivation to meet their needs. However, their jobs must meet their interest with a fair salary, and an opportunity for advancement through organizational support. This includes tools and equipment to facilitate their job. Suitable welfare must be provided by organizations to all staff, especially travel conditions between workplace to residence (Cooper, 1958, p. 31).

According to the two-factor theory, major factors affecting individual job satisfaction are summarized, as follows: (Herzberg, Mansner, & Snyderman, 1959)

1) Motivation factors are related to work itself and are direct results of work. These factors motivating individual job satisfaction comprise achievement, recognition, work itself, responsibility, and advancement. Job satisfaction and motivation take place when such demands are met.

2) Hygiene factors motivate personnel to continue working, but do not bring about motivation. This links to the organizational environment, namely policy and administration, work conditions, reward systems, job security, supervision, interpersonal relationships and status or job positions. If they are not met, job dissatisfaction will increase. On the other hand, if they are met, job dissatisfaction will not occur, however, motivation or satisfaction will not increase as well. Since individual needs are different under numerous conditions, the demand levels are described below. (Alderfer, 2010)



**Figure 2.8** Needs under Operation Mechanism

**Source:** Alderfer, 2010.

1) Existence needs are basic needs, which involve the organizational environment, compensation and welfare.

2) Relatedness needs cover a good relationship with colleagues, executives, subordinates and praise or recognition by other people in society.

3) Growth needs refer to the demand for developing themselves to be advanced and become creative leaders, who can apply their potential for maximum benefits.

Needs occurring are not totally separated, but continually related. Needs do not need to start from low to high levels, but may arise at the same time. Each need level will follow the following mechanisms and conditions (Alderfer, 2010):

1) Needs are met: If needs are slightly met, personnel will still have that need and may cause dissatisfaction. For example, if personnel receive low compensation, that need will still exist and they will feel unsatisfied with their job responsibilities and may resign finally.

2) Size of needs: If needs at lower levels, such as needs for living, are met sufficiently, the needs at higher levels, such as social relations, will be increased. In other words, if personnel receive enough compensation, they will also need acceptance from colleagues.

3) Needs that are not met: If needs at the high level become an obstacle and are slightly met, the needs at the lower level will be more important. For example, if they do not have a chance to do challenging jobs or be in charge of new jobs, they will turn to place more importance to closer relationship with colleagues

However, the expectation of success is a significant condition. Each personnel will understand what he or she needs. This means the perception of values, the relationship of operations and results, and expectations. Their linkage will create motivation. The motivation process starts from the individual who is motivated by different goals, while the need is a component within the decision-making process only. Motivation arising is caused by individual interest or an emphasis on something, while expectations motivates that person to perform his or her tasks to attain the goal. Expectation can be described as an individual belief in the possibility that he or she can attain one goal that leads to another result if such person puts more effort into performing their work. Job satisfaction relies on individual feelings that may vary. Consequently, the results of operations that are motivated and encouraged can be classified into two types, as summarized below. (Vroom, 1964, pp. 75-78):

1) Primary outcomes are the results of work caused by individual efforts.

2) Secondary outcomes are the results continued from efforts, such as more compensation and promotion. Expectation is related to job satisfaction that leads to more improvement of work.

Based on the above-mentioned statements, it is possible to say that job satisfaction has an effect on the job engagement level and work efficiency. But satisfaction can be changed all the time in line with certain factors and situations. Attitudes or feelings expressed may vary according to the assessment and comparison between what the individual receives and what he or she expects (Murray, 1999).

#### **2.4.4 Job Satisfaction Benefits**

Job satisfaction will lead to efficient performance, which will result in job additional satisfaction, too. In other words, personnel can create good performance when their needs are satisfactorily met. Any effort to meet individual needs, either through internal or external rewards, can lead to more job satisfaction. Finally, an individual can create more efficient performance (Witchawut, 2001, pp. 10-11).

At the same time, performance will lead to individual job satisfaction because when work is successful, he or she will receive internal rewards, which create pride and will receive external rewards, e.g., praise from other employees. If these rewards correspond to prediction or individual satisfaction, such individual will have job satisfaction. (Porter, Lawler III, & Hackman, 1975, p. 40).

However, to create job satisfaction, both directions should be applied simultaneously, or organizations should give rewards to satisfy individual needs in different contexts.

## **2.5 Organizational Engagement**

The concept of organizational engagement is an effort to understand the connection between individuals and organizations at an intensive level. It is difficult to specify the definite boundary and to give a complete definition (Frank, Finnegan, & Taylor, 2004, pp. 13-14).

### **2.5.1 Meaning of Organizational Engagement**

Organizational engagement has been defined differently. Individual engagement in organizations refers to co-working with individual roles in organizations. This is observed by performing individual duties, which means full

devotion to responsible jobs, including knowledge and understanding covering trust in leaders and the organizational environment, as well as feelings or positive and negative attitudes (Kahn, 1990, pp. 693-694). Individual engagement in an organization is a strong feeling towards working with the organization or leaving the organization as least as possible (Allen & Meyer, 1990, pp. 2-3). It may refer to an individual feeling that accepts and acts as if he or she is the organizational owner to support the organization to achieve its specified goals (Fleming & Asplund, 2007, p. 154). The intensive determination links to organizational values and is a criterion to measure the relationship between personnel and organizations within timeframe conditions they have worked together (Vazirani, 2007; Federman, 2009, pp. 22-25). Additionally, individual feelings may be caused by norms, participation and values of the internal society that personnel place an importance to by expressing gratitude, positive morale and loyalty (Marsh & Mannari, 1977, p. 177; Wiener, 1982, pp. 418-419).

Based upon the above information, it is evident that an individual's engagement to an organization is a positive deep feeling concerning job roles with attention, devotion and sacrifice of personal happiness with responsibility for being part of the organization until achieving the results of operation so that their operations and the organization meet the targets. As a consequence, personnel express their feelings through voluntary support, as well as pride in their operations on behalf of their organization and working with their organization for a long period.

Employee engagement refers to an employee's effort based upon their knowledge and ability, as well as physical and mental energy to their assigned jobs expressed in different kinds of creative works in line with organizational rules and regulations to create values beyond the organization's expectations (Gubman, 2003, pp. 15-24). The meaning is similar to organizational commitment in some parts, but differ in some parts (Robinson, Perryman, & Hayday, 2004, p. 9; Saks, 2006, pp. 600-602). Since employee engagement to organizations focuses on feelings and behaviors in performing their duties in accordance with their responsibilities, which may start from job satisfaction to commitment later, satisfaction at the beginning will truly become close and permanent engagement. This engagement places importance on

participation, along with responsibility in line with official and unofficial roles (McCauley, 2013).



**Figure 2.9** Organizational Engagement Hierarchy

**Source:** McCauley, 2013.

Organizational engagement has been developed from the role theory linking to various organizational roles, which can be categorized into five types: job holders, team members, entrepreneurs, Career role and organization members (Welbome, 2007).

### 2.5.2 Concept of Individual Engagement in Organizations

Various definitions or meanings linking individual engagement in organizations have been developed to become the following basic concepts:

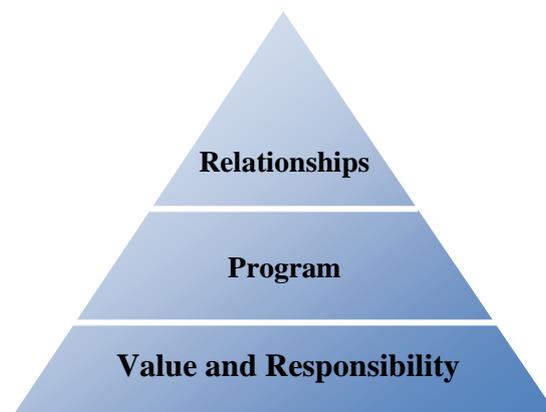
2.5.2.1 The concepts of Steers and Porter are consistent with the above concept, but were divided into two dimensions: (Steers & Porter, 1983, pp. 39-42)

1) Behavioral concept: If employees have organizational engagement, they will have continuous work behaviors. Prior to resigning, the employee will consider whether such resignation is a good thing or bad thing for them. If the employee concludes he or she will lose certain benefits, including money, he or she may then decide to stay with the organization. Once he or she decides that staying is beneficial to him or her that will build job engagement. This means costs and benefits lost (Slancik, 1977, pp. 11-12). It can also be compared to worse situations in case of resignation because employees have lost opportunities and have

devoted everything to their jobs. Therefore, after resignation, benefits to be received in the long term, e.g., pension, and impacts on organizations will be considered. If employees have worked at their organization for a long time, they can be compared to being investors in their organization. This engagement tends to relate to increasing time in the same direction, but in the opposite direction of resignation decision making (Eastern, 1975, p.54). Actually, it is the comparison after resignation if employees will get or lose benefits because employees have job engagement at the existing organization

2) Attitude concept refers to the feeling of being a part of an organization and having expectations to make the organizational operation successful, especially employees working for a long time have a relationship and investment in their organization. As for new employees, their relationship with colleagues and management are important to create engagement (Sheldon, 1971, p. 149). Such engagement is comprised of three components: 1) confidence and acceptance of the organization's goals, a willingness to exert considerable effort on behalf of the organization, and a definite desire to maintain organizational membership (Steers & Porter, 2003, pp. 45-48).

2.3.2.2 Gubman's concept describes the attitude about this issue that employee engagement in organizations takes place when values and responsibility, programs, and relationships link to each other in accordance with the following engagement hierarchy:



**Figure 2.10** Engagement Hierarchy in accordance with Gubman's Concept

**Source:** Gubman, 2003, p. 35.

Organizations can build and develop employee engagement if the above factors relate to each other according to the hierarchy. In other words, values and responsibility are key fundamentals to build a relationship because values and organizational culture will make employees willing to share their responsibility and perform the organizational operations, while programs support employees, such as welfare, salary and training, and affect employee engagement, thus becoming a motivation to continue working. Therefore, organizations have to provide them to meet individual needs. But an organization's limited resources must be taken into consideration. As a result, all employees' needs cannot be satisfied. Finally, employees will have a connection and mutual relationship, which becomes organizational engagement.

2.5.2.3 The concept developed by the American Institute of Public Opinion indicated that each employee is part of the mechanism that drives an organization to grow and succeed. The environment that helps employees to carry out their most efficient work relies on motivation to ensure that these employees can drive organizations in the same direction, along with maintaining organizational benefits.

With respect to the concept of the American Institute of Public Opinion, 2016, the engagement hierarchy is ranked as follows:



**Figure 2.11** Engagement Hierarchy in Accordance with the American Institute of Public Opinion

**Source:** American Institute of Public Opinion, 2016.

1) Growth relates to progress and learning, which means development as well.

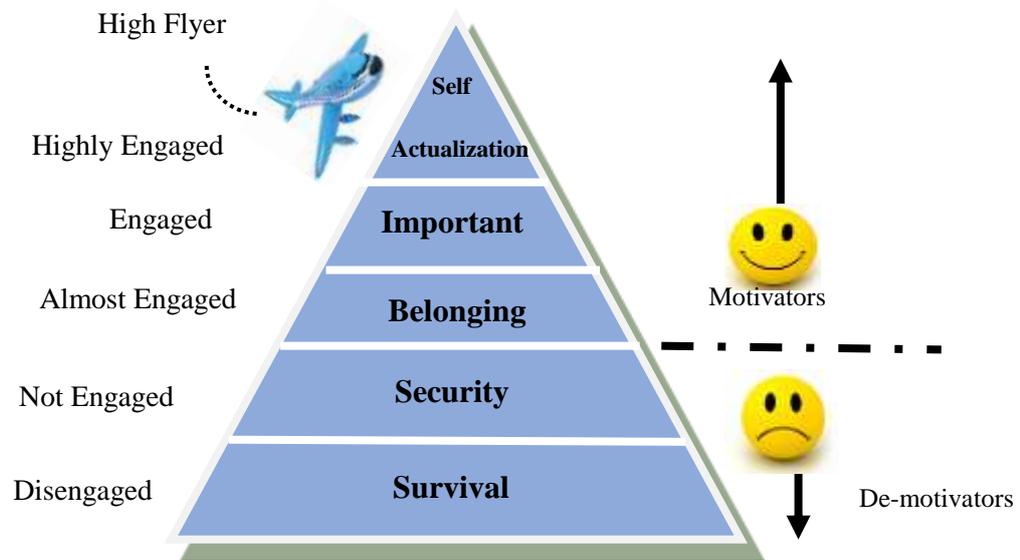
2) Teamwork relies mainly on relationships, such as acceptance of opinions, tasks and objectives, colleagues of good quality and best friends.

3) Individual includes management support covering an opportunity to work best, be accepted, be taken care of, and be developed.

4) Basic needs consist of expectations, as well as the provision of tools and equipment within organizations to facilitate jobs.

The American Institute of Public Opinion categorized employees into three types: 1) employees who engage in organizations and work with attention and devotion, 2) employees who do not engage in organizations and work without much attention and eagerness, and 3) employees who are actively disengaged in organizations and unhappy with their work. If these employees work for a longer time, their engagement will be less. However, if they are engaged in their organization or feel participatory, they will be more engaged. It is necessary that organizations emphasize mainly expectations and individual basic needs.

Different needs according to the meaning of the needs hierarchy, as well as Maslow's concept that relates to the individual livelihood, can be applied to individual engagement to organizations. All employees should take part in formulating the standards and develop their organizations, as described and summarized as follows: (Gunn, 2014)



**Figure 2.12** Comparison of Individual Engagement and Maslow's Hierarchy of Needs

**Source:** Gunn, 2014.

1) Physical needs are basic needs. All human beings need housing and shelter. Therefore, employees must have adequate salary for various expenses or suitable welfare, such as cheap food and organizational uniforms.

2) Security and safety: Apart from employment, employees need security in their work being operated. Such jobs should not be stressful or create too much pressure. Organizations can satisfy this need by developing an employment contract to create a clear understanding, or the same agreement together with joining the Labor Union to assist in a claim for justice in case of employment problems in later periods.

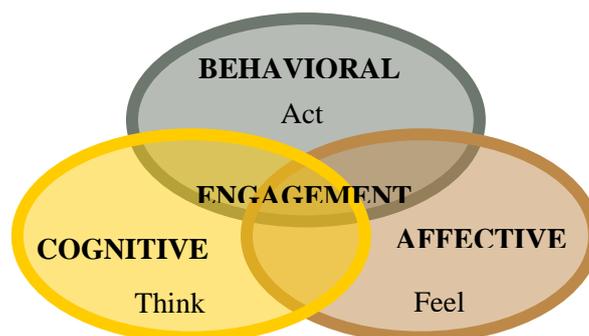
3) Love and belonging: Everyone needs recognition and value covering teamwork under the strong organizational culture. This will lead to more efficiency. Thus, organizations have to provide an opportunity for all employees to express their ideas in making decisions in their work to build individual power and create an atmosphere of feeling part of their organization.

4) Self-actualization refers to participation in organizations through many roles. Perception is important to make all employees realize their

values and generate creative values. It is necessary that organizations praise or appreciate loyal employees who work for a long time with devotion and sacrifice, as well as those who perform their duties well or are role models to other employees. To reciprocate them, rewards or certificates should be awarded.

5) Respect: All employees should be given an opportunity for self-development, e.g., training. They shall give advice or inspiration to other employees so that they can do their best. But they feel participatory when they can establish themselves. Organizations can satisfy this need by letting talented employees try challenging jobs to meet individual ideological needs because fundamental needs of humans are satisfied when they demonstrate their highest performance through achievement, as expected.

2.5.2.4 McCauley's concept (2013) focuses on individual engagement to organizations. Their performances and profits that reflect in the same direction are observed. This is divided into three dimensions-1) Cognitive refers to what employees are dealing with in their organization, 2) Affective refers to what employees feel towards their organization, and 3) Behavioral links to what employees express with eagerness in performing their jobs and wishing to continue working at their organization.



**Figure 2.13** Model of Employee Engagement to Organizations

**Source:** McCauley, 2013.

It is remarkable that each organization has different employee engagement dimensions due to the characteristics or types of industry, organizational strategies and performance measurements.

### 2.5.3 Types of Engagement

As for organizational engagement, motives for engagement can be classified as follows: (Meyer & Allen, 1991, p. 61)

1) Continuance commitment connects to motivation, stressing individual benefits, including employees who still work because they cannot find other jobs.

2) Affective commitment: Since this is in line with set goals, employees want to continue working because they agree with the goals. This commitment leads to acceptance of group attitudes and individual behaviors which are in the same direction as the organization (O'Reilly III & Chatman, 1986, p. 497).

3) Normative commitment is due to unavoidable pressure or reasons.

Concerning dimensions emphasizing individual commitment that may differ, it can be explained as follows: (Becker & Billings, 1993, pp. 188-189)

1) Commitment to the work group, e.g., colleagues at the same level, immediate supervisors

2) Commitment to top management, such as CEOs

This commitment can be compared in the following table:

**Table 2.1** Forms of Commitment

Commitment to Top Management	Commitment to the Work Group	
	Low	High
Low	Uncommitted	Locally committed
High	Global committed	Committed

**Source:** Becker and Billings, 1993, pp. 188-189.

The above table explains about the top management and work group levels, as emphasized by employees. If they do not have the emphasized levels of commitment at both levels, they will be uncommitted. They focus on both top management and the work group, while those who are locally committed are committed to the work group,

but not top management. On the contrary, those who are globally committed, they focus on top management, but not the work group.

#### **2.5.4 Factors Pertaining to Individual Engagement to Organizations**

These factors relate to employees and organizations under different environmental circumstances according to types of business groups for which employees are working. Conway (2003) classified all factors pertaining to work and experience into two categories, as follows:

1) Rational factors relate to employees and organizations, such as the scope of work responsibility and autonomy for responsible jobs. These factors lead to commitment.

2) Emotional factors link to individual satisfaction, inspiration and pride in membership or part of the organizational assignment, especially in famous and good image organizations led by executives with ethics and attention, as employees will be pleased with their assignments or take part in decision-making. These organizations usually provide an opportunity for their employees to grow and develop themselves, as well as maintain their quality of life (McCauley, 2013).

Individual commitment to organizations involves behaviors relating to individual engagement to organizations. Speech, livelihood, ability, and efforts to support organizations can be observed. The factors affecting individual commitment constitute leadership, organizational culture or goals, the characteristics of the work tasks themselves, compensation, quality of life, opportunity provided, and mutual relationship (Canadian Business for Social Responsibility & Hewitt Associates, 2010). If employees realize that work values and compensation are consistent with justice, individual commitment to organizations will increase. In other words, a reward or compensation is one factor that identifies organizational engagement. Individual commitment to organizations depends mainly on the work values of each individual (Mottaz, 1987, pp. 541-542).

In summary, the individual commitment level is a variable that reflects the trend of growth rates and business profits, which are in line with organizations that are acceptable and have a good image as an employer.

Individual commitment to organizations is divided into two factors, as presented below. (Dunham, Grube, & Castaneda, 1994, pp. 370-371)

1) Factors leading to attitudinal commitment constitute perception and an understanding of work importance and work characteristics, which refer to job autonomy, task identity or uniqueness, and jobs relying on multi skills, as well as interaction with supervisors or subordinates. For example, employees trust their organizations to take part in management. The above-mentioned statements will be developed to become affective commitment.

2) Factors leading to commitment as a result of social norms, e.g., participation in management and organizational dependence.

Factors pertaining to leaders who will urge employees to have organizational engagement are summarized, as follows (Daft, 2000, p. 75):

1) Influence involves a practical ability that is superior to others. Leaders can apply it to bring about both direct and indirect benefits. This makes subordinates have faith, trust and organizational commitment.

2) Intention: Leaders have determination and confidence to be a role model and stimulate employees to drive organizations together to successfully achieve the identified goals.

3) Responsibility: Leaders must be responsible for their jobs and set an example for all organizational employees.

4) Understanding in changes: Leaders must understand changing conditions and can adjust or apply them, as well as fix or develop activities to suit conditions arising, so that organizations can continually grow.

5) Setting the same goals: All employees should have the same goals and be allowed to participate in management. Roles and duties of all employees must be also emphasized.

6) Motivation: Good leaders must be able to motivate their subordinates using both monetary and non-monetary methods so that employees can put a lot of effort into organizational work, and can reduce organizational costs at the same time.

Other factors resulting in continuous commitment include employee age, work period, professional satisfaction, retirement and resignation intention. In other words,

employee's age has an opposite relation to choices for other jobs. Similarly, an intention to resign has a negative relationship with continuous engagement because employees who have an intention to resign will have low commitment. Service period indicates organizational engagement but does not indicate investment motion. Service period may bring about engagement, such as close relationships with colleagues (Allen & Meyer, 1990).

However, a driving factor for organizational engagement consists of leadership, direct supervisors, organizational confidence or trust, participation in decision-making, organizational culture, internal communication, work influence, understanding about work and organizations, career path and organizational values (McBain, 2006, pp. 28-29).

### **2.5.5 Individual Engagement to Organizations during Each Working Age**

All organizations comprise employees of many working ages, each of which has different values, job characteristics, attitudes and ways of life. Thus, each organization has to understand employee characteristics in each age group, which are summarized as follows: (Schweyer, 2015; Pew Research Center, 2016)

1) Baby Boomers (born from 1946-1964): Their work values focus on both efficiency and quality. They also try to seek success in life and are immodest to their immediate supervisors. For them, work is an exciting adventure. They usually work hard and refer to democracy. However, they do not listen to others' comments. Communication is by face-to-face. It is necessary that organizations encourage employees to realize their values and importance affecting the organizational motion. In addition, this group needs praise for success. Work is deemed to generate income and inspire happiness. Under hard work, work is compared as a life.

2) Generation X (born from 1965 to 1980). This group emphasizes systematic and clear work values. Each person can perform its duties and tasks on its own, although this group often raises doubts or questions. This group regards work as a commitment under complicated challenges. Their operations focus on order or systematic procedures. They also try to search for new tools for management. As this group relies mainly on telephone communication, organizations should emphasize and stimulate employees' trust in performing their jobs without interfering with

surrounding problems and obstacles that may arise in the future. As they usually need autonomy and freedom, organizations should not force them or formulate complicated regulations, which can become work restrictions. This group stresses a work and family balance, which must be consistent.

3) Generation Y (born from 1981 to 1996): They are self-confident, difficult to teach, and not loyal to organizations. They are, however, loyal to their professions. Their values include regularly searching for new challenges. They can immediately resign regardless becoming unemployed. However, they are responsible for multi tasks and missions at the same time. Working is only a tool for them to fulfill some goals. Each person has unique work styles, relying on technology to facilitate their work and reduce problems during working, especially communications via internet, email and voice mail. Organizations must try to build inspiration and opportunity, as well as create a positive atmosphere by giving them awards. This group usually needs important jobs. Thus, a work and relaxation balance is important.

### **2.5.6 Measurement of Individual Commitment to an Organization**

The measurement of individual commitment to an organization is based on the affective, continuance and normative commitment to the organization, as detailed below: (Allen & Meyer, 1990, pp. 5-7)

1) Affective commitment and fit reflect individual appreciation or positive attitudes towards jobs and organizations, but may not reflect positive decision making because decision making needs principles and rationale. To drive organizations properly, this feeling is necessary to be created by cognitive belief rather than emotional response. However, the job commitment structure is not emotional motion like that of individual commitment to the organization.

2) Behavioral commitment and sacrifice refer to physical and mental sacrifice to colleagues and putting forth continuous efforts to the organization, including new skills in accordance with organizational needs, as well as knowledge and self-development to serve organizational operations. This also includes agreements that may connect internal politics. All of these become questions and reasons if they are considered for assessing worthiness after resignation, e.g., freedom

and benefits. They will become key questions compared to the results acquired by employees in return, such as training and value realization.

3) Normative commitment and its link to overall organizational commitment are caused by individual feelings related to engagement that becomes self-engagement to work for the organization under individual consciousness. Although employees may have colleague engagement, this link covers the number of colleagues or support team, even though this group may not be part of the organizational structure.

Commitment was also compared in other dimensions, such as personal-organizational fit, personal-job fit, as well as individual responsibilities for their families (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001).

Personal-organizational fit is the consistency of personality traits, individual values, value culture, as well as demands and organizational strategic operation (Netemeyer, Maxham, & Pullig, 2005, pp. 139-140). Personal-job fit includes individual skills, knowledge, ability and assigned tasks (Kristof, 1996). Family responsibility involves the job area relocation that affects individual responsibility for the family. This group does not want to move or change their places. Some employees who may be the house owners or those who may have close friends who live in the same area do not want to change their places of work. In addition, as for the relocation to foreign countries, family's objection plays a role and influences individual decision-making (Turban, Campion, & Eyring, 1995, p. 210; Shaffer & Harrison, 1998, pp. 115-116).

### **2.5.7 Benefits from Individual Commitment to an Organization**

Individual commitment to an organization is very important. The management of efficient human resources who have continued working for a long time, and the motivation of employees to have organizational engagement, have a relationship in the same direction. But the creation of employees' motivation is very difficult. Engagement also affects satisfaction of service users (Fleming & Asplund, 2007; Harter, Schmidt, & Hayes, 2002), as well as organizational outputs and benefits. They are also used to forecast the input and output of organizational staff or the organizational transfer rate because the relationship between the organizational

engagement and the staff resignation is in an opposite direction. In other words, if employees have high organizational engagement, their resignation level will be low.

Such engagement is an organizational condition linking to the imagination of all employees and objectives. It also pushes for efficient employees' performance. As a result, organizational work can achieve the specified goals.

## **2.6 Relevant Research**

With respect to the study of factors affecting the intended resignation of 112 samples of talented government officials, Arkardjang (2013, p. 47) stressed that occupational status and work relationships are significant factors affecting resignation, not the compensation and private life. The important factor that made physicians in the public sector resign is a problem relating to overload responsibilities, career path and executives or supervisors. The groups that mostly influence the physician's resignation in the Thai public service include friends, colleagues and parents (Sikheawsukwongkot, 2016, p. 194).

In comparison with physicians in the United Kingdom, it has been found that physicians' resignation is still high. About 50% of physicians working in the northwest of England wish to resign before reaching the age of 60 (Murray, 2000). Most of them (29%) live in the United Kingdom and are 34 years old or more. Those who are 45-49 in age resign the least, or about 22% (Pathman, Konrad, Williams, Scheckler, Linzer, & Douglas, 2002).

Many physicians wish to quit due to overloaded work or too many work hours. In addition, they have to bear pressure from work because of their changed jobs and have to work with unclear or indecisive management, all of which are the main reasons in the same direction (Allen, Hale, Herzberg, & Paice, 1999, pp. 80-82). In particular, staff in accident and emergency rooms have more pressure than those in other departments. This affects their work and morale, as well as their long-term professional operations (Burbeck, Coomber, & Robinson, 2002, p. 234).

Organizational factors affecting physicians' resignation in Thai public service comprise organizational policies, organizational engagement, organizational culture and organizational structures (Sikheawsukwongkot, 2016, p. 195). They are consistent

with the study of the casual relationship of organizational culture and job burnout affecting the resignation within other professions. Organizational culture, especially competitive marketing culture and emotional burnout, are important factors affecting and relating to the intended resignation of organizational employees (Khaonual, Sadaenghan, & Ing-art, 2015, pp. 50-51).

The regression analysis of data from eight medical institutes in Israel pertaining to the study of the relationship between attitudes to medical profession and organizational management which lead to resignation by Mano-Negrin & Kirschnbaum (1999, pp. 695-698), indicated that ages and organizational support are not factors which encourage staff resignation, but the professional goal is the most significant factor for resignation. However, professional importance is not a driving factor for resignation. Professional integration is the most important factor to attract physicians to resign. On the other hand, professional acceptance does not affect physicians' decision making.

The comparison of physicians' decisions to resign in the United Kingdom revealed that most of them want to transfer to non-metropolitan areas due to family and social reasons, including field of work and lack of autonomy, as well as responsible workloads that are inconsistent with compensation. Family and external society are also an important factor, such as time needed for relaxing and better health care. The significant reason for early resignation includes general activities and more complaints under political and organizational executive pressure (Atherton & Murray, 2000, pp. 19-21). At the same time, Kendell & Pearce (1997, pp. 743-744) explained that the reasons for psychiatrists' resignation between 1995 and 1996 constituted governmental policies concerning treatment of psychiatric patients promulgated in the United Kingdom, additional fields of work and a large number of documents. They also included individual safety and lack of job impression, as well as work pressure and poor relationships between managers and staff. However, the results of the research revealed the reasons of doctor's resignation, e.g., being complained, a lot of work, being pressured, etc. The research questions do not consider the overall talent of each doctor.

The severe shortage of physicians in the United Kingdom affected financial costs, function division, temporary replacement, selection and recruitment, as well as

application and training. These costs included the hiring of new staff, those studying and resigning who may be slightly affected during the promulgation period, as well as total income and competition advantages, which are rare qualifications. Other impacts constituted lost skills, chaotic operations and lost time on employees' conscience (Institute of Development Studies, 2000, p. 3).

The higher turnover rate of each organization is a result of no human resource development policies or poor human resource recruitment, as well as no operation directions, no procedures relating to addressing complaints and a lack of motivation. All of these may induce employees to intended resignation (Guthrie & Datta, 2008, pp. 118-120).

As for the study on physician retention, the attitudes of medical professional groups working in rural areas, as well as the performance of the 4<sup>th</sup> year medical students from various institutes, were assessed by Asia-Pacific Network for Health Professional Education Reforms in five countries, namely China, Bangladesh, India, Thailand and Vietnam in terms of medicine, nursing and public health focusing on attitudes, competition and willingness. Chuenkongkaew, Negandhi, Lumbiganon, Wang, Mahmud, and Cuong (2016) explained that 60% of Bangladesh and Thai students had good attitudes with respect to rural jobs, while only 50% of Indian and Chinese students had good attitudes towards rural jobs, and only 33% of Vietnamese students had positive attitudes towards rural jobs. In addition, most of the students wanted to work in the public sector after graduation, while the overall talent of medical students was relatively low. Medical schools in each country, therefore, should provide inspiration for their students to work in rural areas.

As for the study of key motivation of medical students for a Bachelor's Degree in Germany who work at the organizations focusing on family medicine, 458 physicians (66.70% of them are male) out of a total of 523 physicians answered questionnaires. About 49.7% of them work in rural or remote areas. The doctors answering questionnaires have participated in the teaching of family medicine for more than six years, as well as have experience of at least 19 years in treatment. The questionnaire consists of 68 questions. The assessment of different values and motivation of each physician revealed that assisting other people and interest in profession are the most obvious motivation. They dreamed of giving medical advices

to improve the teaching of the Bachelor's degree program, pass on and share general knowledge, as well as promote family medicine, be responsible for teaching, apply educational experience and assess performance of patient treatment using medical knowledge development, especially collaboration between universities worldwide in providing medical teaching. This is the obvious motivation of the majority of doctors who have tried to develop themselves, while still providing treatment to patients and teaching students under the former organizations. The maintenance of original traditions and searching for graduates are not important at all. Time is regarded as the most significant obstacle or limitation. Income, benefits, higher professional dignity, students' support and patient treatment for better quality of life are less important than teaching. However, organizations should provide fair compensation and other rewards in exchange for fair performance and teaching. They also have to solve compensation inequality problems, although physicians answering questionnaires did not give as much as importance to it as teaching improvement. Regarding motivation for teaching medical students and compensation payments, both factors do not have involvement or a relationship (May, Mand, Biertz, Hummers-Predier, & Kruschinski, 2012, pp. 5-8).

On the contrary, the study of motivation and retention of health personnel working in hospitals in Ghana, using a simple random sampling of 160 public health employees or 56.1% of all employees working in remote hospitals, along with the collection of evidence-based documents, Adzei and Atinga (2012) revealed that financial impacts concerning the retention of medical staff of hospitals in Ghana are a significant motivation and affect the attentive operation of hospital staff. At the same time, other factors apart from motivation consist of leadership skills, opportunity for continuous self-development, as well as infrastructure and resource readiness, are important conditions to retain human resources working at hospitals. The qualitative concept in this research enables us to understand the complicated point of view of personnel relating to this issue. Law enforcement should be in accordance with the agreement conditions, such as bonus payment in line with organizational regulations. Additionally, good leaders must be able to manage complaints by monitoring and retaining all employees. This corresponds with Virasombat (2009)'s statement that medical workload in community hospitals must suit motivational compensation for

jobs under the support of the hospital's quality development policies. Life and workload balance must be considered. Clear guidelines and continuous operations must be provided. With respect to the Office of the Civil Service Commission's retention of talented personnel, compensation and welfare issues are also the most important obstacle (Srisawad, 2013, p. 47).

Other factors affecting the retention of personnel to continue working include training and development; challenging tasks; opportunity for creative and independent jobs; and job security (Samuel & Chipunza, 2009, pp. 413-415). Similarly, the retention of doctors to continue working at the same organizations in the United Kingdom involves an emphasis on self-development, along with suitable compensation under a good environment and good quality of life (Izzo & Wthers, 2002, pp. 53-57).

The marital status factor also affects the work and life balance of female executives in the U.S. As a result, these resources still work at the same organizations (Ezzedeen & Ritchey, 2009, pp. 396-397). Moreover, apart from the compensation factor, there are other factors concerning the retention of medical staff to continue working with determination to provide services through information technology, such as supervisor's support and job characteristics (challenging, skillful and autonomous). This will provide satisfaction with opportunity for training and development, which will lead to employee engagement and sacrifice to organizations under the factor of private life balance (Dyk, Coetzee, & Takawira, 2013, pp. 60-62).

Management of talented personnel must start from employment, training in accordance with their performance, challenging work assignments and management of employment conditions that differ from those of other staff. The retention of talented personnel to continue working at the same organizations requires both internal and external rewards that cover flexible employment, career path planning, short-term rewards, challenging assignments and talent development planning.

Organizations should promote managers within each field to realize the importance of talented personnel management, as well as promote activities through informal discussion. This will result in the acquisition of actual information. In addition, a meeting should be held to let talented personnel express their ideas and feelings with the condition of reasonable compensation, along with good relationship

(Porter, 2011, pp. 56-58), to ensure that these staff put their efforts into successfully achieving organizational goals. This will lead to competitive organizational advantages and sustainability (Suphanalai, Kongklay, & Kittisaknawin, 2017, pp. 247-248).

The analysis of factors affecting job satisfaction and intention of resigning from Samut Sakhon Hospital by Sangurai (2015, p. 760) revealed that the job satisfaction of personnel is moderate (average 3.35 and SD 0.468). The intention of resigning is also moderate (average 2.75 and SD 0.720). It is remarkable that job satisfaction has a low negative relationship with the intention of resigning. The overall job satisfaction of the staff at Pak Tho Hospital in Ratchaburi Province is moderate (average 3.28 and SD 0.45). Employee age, educational level, job experience, types of positions, as well as roles and functions, are statistically significant at the 0.01 level, except gender (Pacharoen, 2013, p. 80). This is consistent with the study of factors affecting job satisfaction of personnel working on directing at Kabin Buri Hospital by Charoennopprakit (2016, p. 34), who discovered that gender, age, educational levels, income and work period did not affect job satisfaction, but compensation did have an effect on job satisfaction.

The study of the relationship between job satisfaction, engagement and intention of resigning of Thai pharmacists in the public and private sectors was compared with causal factors that affect work using questionnaires for collecting data. The validity from measuring observed variables ranged from 0.63-0.94. Data was collected from 542 samples (20.8 male and 79.2 female). The work hours of the pharmacists working in the private sector were higher than those in the public sector, but their job satisfaction was higher than that of those in the public sector. Job satisfaction is a variable that has both direct and indirect effects on the intention of resigning, while individual factors, job satisfaction and organizational engagement are variables that have direct effects on the intention of resigning. The studied relationship models are consistent with the empirical data. A chi-square test for independence of two population groups amounts to 118.91, the degree of freedom amounts to 99, p amounts to 0.084, while GFT amounts to 0.97, RMR amounts to 0.036 and RMSEA amounts to 0.019. Variables can explain a variance of 0.45 with the intention to resign. Thus, to make Thai pharmacists satisfied with their jobs, it is

necessary to let all of them have a role in driving their professions. This is necessary to result in improvement and development. Work traits, recognition and monetary compensation are still vital to create job satisfaction among personnel in this profession (Chaichalermphong, 2008, pp. 26-30).

The study regarding the satisfaction of 141 physicians from the Clinics Hospital, School of Medicine, University of Sao Paulo: CH-MS-USP Sao Paulo), who answered a questionnaire comprising 44 questions was conducted to measure the satisfaction of ten aspects using the Linkert model. About 63% of the male doctors responded to the questionnaire. Factors that create the most motivation for doctors who start their profession at a hospital link to hospitals and medical schools. Thus, they can contact academics all the time (17%), followed by teaching facilities in famous hospitals. This is the secondary reason for doctors who start their career in this hospital (only 15.5% responded to this). An opportunity for education or research development is a motivation for them to work at this organization (16% of respondents). About 30 doctors, or 22%, do not want to stop working at the hospital. If they could select a new occupation again, most of them preferred this occupation because many of them have good relationship with colleagues and are satisfied with job security. This is the highest satisfaction. More than 50% of the doctors thought that their workplace met the standards and this hospital is one of the best public hospitals in the country. Positive factors that motivate them to continue working include research and development, as well as social respect which has been emphasized. At the same time, many doctors are not satisfied with their compensation that does not balance against a large number of activities. The compensation has increased slightly in accordance with the work period, but the number of work hours and the quantity of work intrude into the private time of doctors (their average working hours are 26 hours/week). Such dissatisfaction connects to the importance of patient treatment that may be poorer due to the failure of prescriptions and an increasing number of medical mistakes, which are harmful to patient's safety. The complexity of work systems may currently cause job dissatisfaction of doctors. Additionally, factors affecting job satisfaction and resignation, such as age, specialization, and post-education are not in the same direction, e.g., relationship between age and job satisfaction is not statistically significant. However, medical

specialists are likely to continue working at their organization and upgrade their services (De Oliveira Vasconcelos Filho, De Souza, Elias, & D'Àvila Viana, 2016, pp. 6-9).

In addition, the study of job satisfaction of lecturers at universities in South Africa was conducted by selecting 80 lecturers with experience in education of more than 10 years. Selesho (2014, p. 302) remarked that compensation, organizational support and leadership had an effect on job satisfaction of the lecturers at universities in South Africa, most of which did not trust academic leaders. Additionally, academic promotion and compensation were not as expected. Organizational policies and promotion regulations were not transparent or clear. Due to the above factors, this led to unequal compensation, along with no chance of lump sum compensation. Consequently, lecturers were bored and intended to resign because they did not have job satisfaction as a result of an overload of work, potential development and opportunity, even though organizations were supported by external agencies and the lecturers are more well-known. As for the study of job satisfaction among doctors, nurses and assistants in each profession in Norway, they had job satisfaction because organizational leaders played a key role and realized the importance of personnel development by strongly supporting training and research in all dimensions (Krogstad, Hifoss, Veenstra, & Hjortdahl, 2006)

Based upon the above statements, it is evident that job satisfaction is a major factor for motivating personnel to continue working. The study of motivation was conducted in the Canberra Hospital in Australia. Medical professors are still satisfied with teaching medical students. Dahlstrom, Dorai-Raj, McGill, Owen, Tymms, & Watson (2005) pointed out that teaching satisfaction is the most significant motivation. Other factors include opportunity for creating motivation to specific medical students, feelings of status and fame, and their colleagues, which are the secondary motivation. They also include the access to a research database and facilitation to support educational quality development. In addition, gender and participation in the organization in terms of research and teaching have effects on motivation in the same direction. In other words, both male and female lecturers want to help others. With respect to compensation, this factor does not concern money only, but also includes an opportunity for education and attending academic

conferences. Most lecturers have direct access to unique teaching and learning of universities and compensation payment (salary) through the efforts in accelerating development of education quality. Such education was carried out by 75 clinic doctors (57 men and 18 women out of the 101 identified doctors). They included specialists (24), general practitioners (39) and surgeons (12). The study passed the Q methodology to assess motivation of these doctors.

The study concerning individual engagement to the organization, the relationship between individual factors relating to operations, as well as the relations between personnel and organizational operations was carried out by Rumpoipol (2005), who remarked that the first five factors for creating more organizational engagement at the Maharat Nakhon Ratchasima Hospital constitute 1) income, 2) self-value, 3) a health care card for themselves and family members, 4) career path, and 5) work atmosphere. The hospital has to improve human resource management to promote creativity and develop the performance appraisal systems to create a sound work atmosphere that is desired by everyone and to serve service users. This corresponds to Vanderberg and Scarpello's explanation (1992, p. 125.) that rewards and compensation as expected have a positive correlation with organizational engagement.

However, Yamsuda's study (2006) added that job characteristics, organizational culture, career path and performance have a moderate relationship with naval medical personnel's engagement to organizations despite different ages and genders. In addition to the above reasons, she remarked that personnel training and development, bureaucracy, colleague relationships, work conditions, supervisor relationships and work opportunity, as well as monetary and non-monetary rewards and compensation, have relations in the same direction of the engagement (Tophanitchsuree, 2010, p. 35). But organizational engagement is an internal factor, which has the most effect on the physician's decision to resign from the bureaucracy of Thai hospitals (Sikheawsukwongkot, 2016, pp. 183-184). It is also a significant factor of all the factors comprising respect, good memory and engagement that affects work due to job satisfaction. However, many executives often have a misunderstanding and think that only compensation can create job satisfaction and job engagement (McGuire, Houser, Jarrar, Moy, & Well, 2003).

Creating individual engagement to an organization is a challenging job for managing physicians who need support and recognition from their supervisors. This will lead to eagerness and inspiration to create excellent performance. Thus, managers or supervisors have to know and understand the nature of the physician groups well. Organizational engagement also has a positive correlation with service users (Nolan, 2009). Similarly, Erickson and Gratton (2007, p. 3) described that to create organizational engagement, it is necessary to take different individual needs for each profession into consideration, including doctors, dentists, medical technologists, pharmacists and nurses. This is also applied to the management of a variety of human resources from private hospitals in Thailand. Wongprasit (2016, pp. 21-22) stated that if personnel have high organizational engagement, they will put a lot of effort into their work to achieve the goals. As a result, service users are satisfied and organizations will receive maximum benefits. Executives from private hospitals in Thailand have realized this importance, so they try to understand the nature and needs of hospital staff. Some hospitals have applied systematic management styles and executives try to upgrade hospital quality to create trust among physicians, such as risk management systems, quality development systems, modern tools and competent teams. Additionally, good executives have a positive relationship with all personnel, while hospitals reduce stress and expectation of patients and their relatives by establishing a special complaint and solutions unit.

The study of the retention of medical personnel in the Kenyatta National Hospital, Nairobi, Kenya involves a mixed research using a questionnaire and an interview that describes work situations to analyze motivation based on compensation. The population group comprised 800 doctors and nurses, each of which had at least five years of service experience. Factors linking to internal atmosphere and learning, career path, training and self-development, as well as compensation are the main causes of continuing working at the same organization. Organizations have consistently sought new management strategies for talented human resources, along with building a good image by providing perfect service so that these doctors and nurses remain at the organizations, as there is a shortage of these professions in all areas of Kenya and the medical competition trend is severe around the world. (Karemu, Kachori, Josee, & Okibo, 2014).

The above study is consistent with some issues analyzed in the in-depth study concerning the management process of talented medical staff in Slovakia. The study utilized the in-depth data using the statistics for significant difference analysis. Taha, Gajdzik, and Zaid (2015, p. 98) found that the size of organizations affects the application of talented personnel management process comprising the following dimensions: 1) training and ability development to serve competition and modernness, 2) personnel preparedness that refers to the preparation of personnel to suit responsible jobs, and 3) management and assessment under regulations and laws. The compensation paid by medical organizations is not high. In comparison with an effort to promote and to support this profession to grow, this profession and personnel development plans are not mentioned. This may lead to severe situations confirmed by 25% of respondents. Training is better according to 56% of respondents who confirmed that implementation of key projects relies on talented personnel. However, these personnel were assessed too low, as confirmed by 59% of the respondents. The overall management of talented personnel is getting better, such as realization of individual values and better compensation than nearby countries. This is necessary to avoid brain drain problems or the relocation problem of talented personnel in the future.

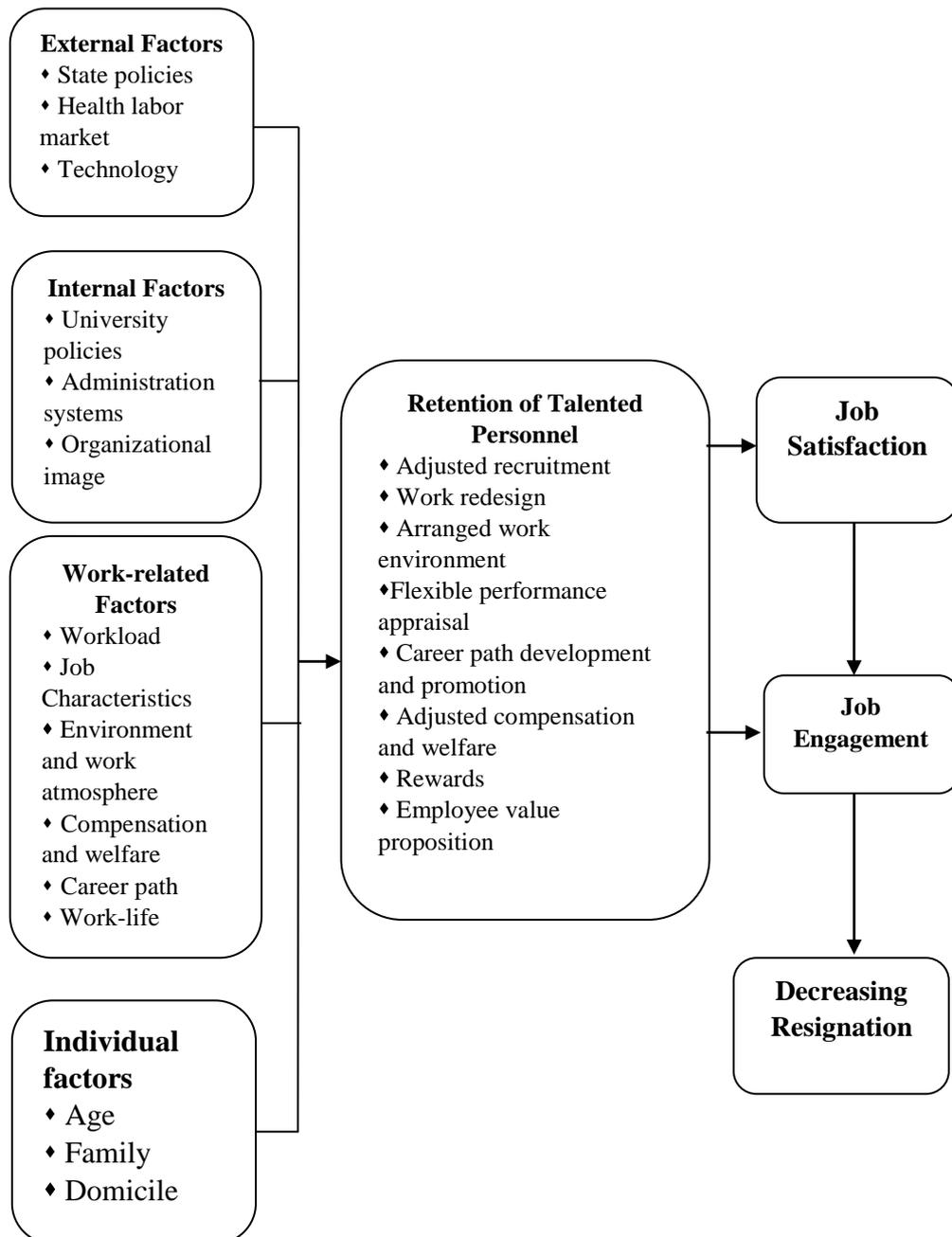
## **2.7 Conceptual Framework**

Following the review of literature, as well as the concepts of theories and other relevant research, on the retention of talented personnel in the new medical schools in northeastern Thailand, this researcher has further developed Das and Baruah's conceptual framework (2013) related to the personnel retention that described major factors and the relationship of different points of view, namely compensation, rewards, recognition, support and growth, participation in decision making, work-life balance, environment and organizational atmosphere, training and development, leadership and security. This researcher studied factors affecting the retention of talented personnel in the new medical schools in the northeast, which comprised extrinsic factors, intrinsic factors, work-related factors and individual factors. External factors include state policies, the health labor market as explained by Maertz and

Campion (1998, p. 556) that the health labor market affected individual decision in resignation, and technology. Internal factors include university policies, administration systems and organizational image. Work-related factors adapted based on the concept of Harrell & Stahl (1964, pp. 247-251) include workload, work traits, environment and work atmosphere, compensation and welfare, career path and work-life balance. Individual factors include work-related qualifications, namely age, family, domicile and other factors, such as health. In addition, the literature review pertaining to the concepts and models of resignation, such as the model of Mowday, Porter, and Steers (1982), indicated that individual resignation took place due to the following factors: 1) affective responses to the job, which lead to resignation, e.g., job satisfaction and organizational engagement, and 2) non-work factors, e.g., marital necessity and family bonds. As for job satisfaction and organizational engagement, Price & Mueller's model (1986) revealed that too much workload, monotony, decentralization and an unclear career path may affect job satisfaction and organizational engagement. This researcher also studied policies and limitations of the new medical schools at the public sector, university and faculty levels because these factors result in the retention of talented personnel in the new medical schools in the northeast. After that, the above factors were analyzed as to how they affected the retention of talented personnel in the new medical schools in the northeast so that the retention models of talented personnel in each northeastern medical school could be developed. This researcher studied factors to retain talented personnel in the new medical schools, such as adjustment of recruitment, work redesign, arrangement of work environment, adjustment of compensation and welfare, flexible performance appraisals, career path development and promotion, as well as employee value proposition.

The conceptual framework and theories studied in this chapter have led to the conclusion that the retention of talented personnel in the new medical schools in the northeast must take into consideration factors such as external factors, e.g., state policies, health labor market and technology; internal factors, e.g., university policies and administration systems; work-related factors, e.g., Job Characteristics, workload, Work environment, compensation and welfare, career path and work-life balance, as well as individual factors, e.g., age, family, domicile; and other factors, e.g., health.

Such factors affected job satisfaction or organizational engagement, which reduce the resignation. This researcher has applied those issues to create the conceptual framework for the study, which is as follows:



**Figure 2.14** Conceptual Framework

## **CHAPTER 3**

### **MEDICAL SCHOOL CONTEXT**

In this chapter, the researcher has presented the content about medical school context and phenomena relating to the research entitled “Retention of Talented Personnel in the New Medical Schools in Northeastern Thailand”. Documents from textbooks and research works were collected to serve as a framework for research operations. Significant discussed issues are as follows:

- 3.1 Medical Manpower Phenomena
- 3.2 Medical Manpower Production
- 3.3 Medical Schools in Thailand and New Medical Schools in the Northeast

#### **3.1 Medical Manpower Phenomena**

Health human resources constitute significant manpower in the health system and success or failure factors in health operations because they are producers, users of health technology and managers of health systems to bring about people’s good health. The proportion of medical resources to population in ASEAN countries revealed that the proportion of physicians was 3.9 to 10,000 people in Thailand, which was lower than key competitors who are known as medical hubs and academic hubs, such as Singapore (19.2 physicians to 10,000 population) and Malaysia (12.0 physicians to 10,000 population; the Department of Health Service Support, Ministry of Public Health, 2016), as shown in Table 3.1.

**Table 3.1** Proportion of Physicians in ASEAN Countries from 2007 to 2014

Country	Proportion of Physicians
Brunei	14.4
Cambodia	1.7
Indonesia	2.0
Lao PDR	1.8
Malaysia	12.0
Myanmar	6.1
Philippines	11.5
Singapore	19.5
Thailand	3.9
Timor-Leste	0.7
Vietnam	11.9

**Source:** World Health Statistics 2015 referred to by the Department of Health Service Support, Ministry of Public Health, 2016

**Note:** Proportion to 10,000 Population

The health human resource crisis is still the first priority problem in Thailand under the context of problems related to environmental changes, such as economic, global trade policy, social, public health policies, reform, population and epidemiology changes, all of which affect public health service systems and health manpower systems, as well as economic growth after the economic crisis in 1997. At the same time, the Thai government had policies to promote foreigners to use public health services in Thailand with the objective of economic benefits. As a result, private hospital business has increasingly expanded. Thus, health human resources have moved from the public to private sectors. Additionally, national economic, social, educational and technological development has led to much higher demand by the public and higher expectations of health service systems. This has led to higher demand in services and their quality, including complaint cases under the national health security (Channarong Vongvichai, 2016). Decentralization to local

administrative organizations has also resulted in public health agencies and local administrative organizations seeking cooperation in health production and employment or public health policies focusing on health promotion, as well as traditional and alternative medicine, including local wisdom promotion. It is evident that health jobs are wider and relate to various sectors, people's organizations, local wisdom, village health volunteers, people's health networks, non-profit networks/organizations, as well as health manpower in the public sector. The roles of health human resources may, therefore, change to work more with other networks and the civil sector, as well as to use more and changing health services. This is a result of different factors, such as the universal health care policy, which results in the increasing use of public health services, as well as an increasing number of elderly people, chronic diseases and emerging new diseases.

Due to the above situations and problems, although the Ministry of Public Health had planned and developed health human resources, as well as continuously solved identified problems, impacts from various changes still affected the existence of some manpower problems. At the same time, a lack of manpower took place. Various changes affected the increasing demand in health manpower, such as the Universal Health Coverage Policy, the HIV drug resistance policy for HIV/AIDS patients, severe acute respiratory syndrome (SARS), Avian influenza or bird flu and the foreigner health care promoting policy. These factors resulted in the demand in limited health manpower. As a result, the shortage problem was more severe (WHO, 2014 referred to by Channarong Vongvichai, 2016) and the manpower distribution was unfair. Despite policies to increase production and measures to increase and fairly distribute health manpower to rural areas, unbalanced manpower distribution still exists. As can be seen by the density of physicians, dentists, pharmacists and nurses who work in Bangkok, their numbers are 5-10 times higher than that in the northeast. Consequently, the shortage of physicians in rural areas is still a major problem. Although public health staff, communities and nurses provide services in rural areas at the primary level, other professional levels of physicians and nurses are still needed to bring about equality in the access to professional personnel and the appropriateness of working and support systems (Channarong Vongvichai, 2016).

**Table 3.2** Ratio of Physician Distribution in Thailand from 2014 to 2016

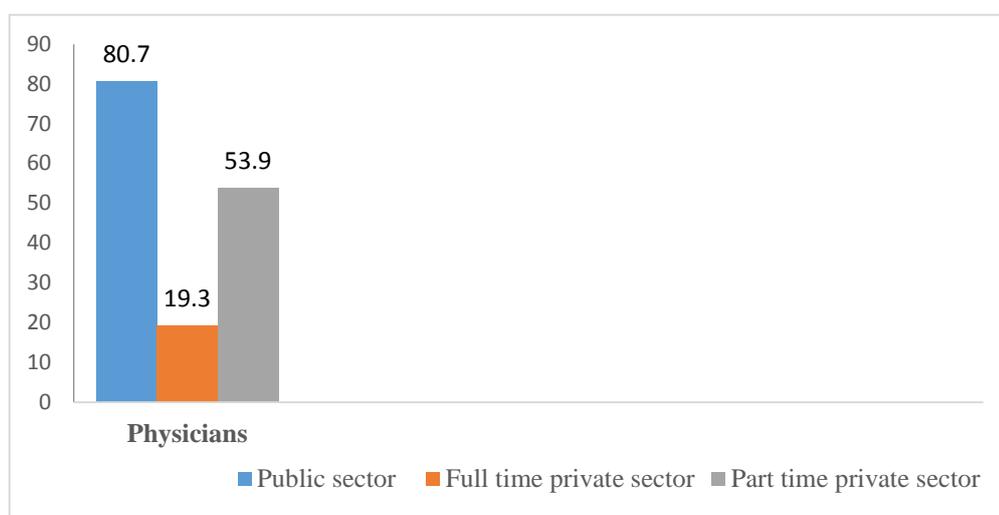
Region	Number of Physicians		
	2014	2015	2016
Whole country	30,565	31,959	31,484
Bangkok	7,885	7,886	7,889
Central, excluding Bangkok	4,740	8,527	8,257
North	8,191	5,021	4,965
Northeast	6,248	6,817	6,558
South	3,501	3,708	3,815

**Source:** Public Health Resource Report, Bureau of Policy and Strategy, Ministry of Public Health

The planning of public health service development includes both the quantity and quality of human resources, as well as distribution of those resources to meet the demand for public health systems and in accordance with socio-economic changes. Health human resource planning requires the future health system assumptions in each profession to integrate personnel, it is necessary to integrate inter-professional human resources. Apart from the estimate of health human resource demand, it is necessary to identify the desired qualifications and ability of each profession so that the guidelines for producing human resources are formulated in line with the context of the country's demand.

The distribution of physicians in the public and private sectors indicated that the ratio of physicians in the private sector gradually increased from 274 physicians (6.7 percent) in 1971 to 3,364 physicians (23.7 percent) in 1995. During that period, the national economy grew considerably. The number of physicians in the public sector under the Ministry of Public Health and other ministries, state enterprises and local state agencies declined from 93.3 percent in 1971 to 76.3 percent in 1995. Later, after the economic crisis in 2002, 79.0 percent of physicians worked in the public sector and 55.0 percent rose in the Ministry of Public Health only, while the number of physicians in the private sector, which decreased during the economic crisis in

1997 (19.6 percent), rose slightly to 21.0 percent. However, during the economic recovery between 2003 and 2005, the percentage of physicians under the Ministry of Public Health tended to decline, while other ministries tended to rise slightly. Most physicians in Bangkok are under other ministries, followed by the private sector, while most physicians in the region are under the Ministry of Public Health (Suwit Wibulpolprasert, 2005; Piniy Faramnuayphol et al, 2007).



**Figure 3.1** Percentage of the 31,959 Physicians in the Public and Private Sectors in 2015

**Source:** Public Health Resource Report, Bureau of Policy and Strategy, Ministry of Public Health, 2015 referred to in the Health Information System Development Office, 2017

When considering the distribution of physicians based on geography or urban and rural areas in accordance with the Public Health Resource Report, Bureau of Policy and Strategy, it is evident that it is not different from the population census in 2000. That is, the trend of the ratio of physicians to the overall population from 1979 to 2005 at the regional level, although the ratio of the physicians to the population in the northeast continuously decreased, but it was still higher than other regions. The ratios in the northern, southern and central regions were similar. As for the ratio in Bangkok, when compared to that in the northeast, the ratio gradually decreased from

21 times in 1979 to eight times in 2005 (Suwit Wibulpolprasert, 2005). The health resource survey report in 2004 revealed that physicians concentrated in Bangkok and its perimeter or in big cities with a good economy, especially in provinces with medical schools, e.g., Chiang Mai in the north, Songkhla in the south and Khon Kaen in the northeast. For example, the ratio of physicians to the overall population in Khon Kaen was 1: 3,697, while that in Si Sa Ket was only 1: 12,210 (Bureau of Policy and Strategy, Office of Permanent Secretary, Ministry of Public Health, 2005). However, the ratio of medical and public health human resources distribution in Thailand is likely to be higher. The ratio of physicians to the population in Bangkok and the northeast declined from eight times in 2004 to only four times in 2015 (Health Information System Development Office, 2017).

### **3.2 Medical Human Resource Production**

The Human Resource for Health Research and Development Office's survey and the Bureau of Policy and Strategy's public health resource survey in 2010 indicated that there were only 26,162 physicians in public health service offices, or the ratio to the population was 1: 2,428, while the national demand should be 1: 1,500-1,800. Besides the shortage problem, there were still distribution problems. The data revealed that the ratio of physicians in the Ministry of Public Health accounted for only 50.4 percent of the total number of physicians. At the same time, more than 80 percent of people had to be taken care of. As for the loss of physicians, up to 795 physicians resigned in 2003. Currently, the high turnover rate of physicians still exists (Health Statistics Sub-committee and Working Group on Health Statistics, 2014).

According to the data from the Thailand's Increasing Doctor Production Project from 2013 to 2017, it was aimed to produce one doctor per 1,500 people by 2022. The data from the Bureau of Policy and Strategy, Ministry of Public Health revealed that the ratio of physicians to the population in 2013 was 1: 2,521. It is, therefore, necessary to plan the production of doctors and medical personnel to be sufficient and consistent with the national demand. In addition, the production must meet the standard specified by the Ministry of Education and professional councils (Department of Health Service Support, Ministry of Public Health, 2016).

**Table 3.3** Ratio of Individual Physicians to the Population from 2009 to 2019

<b>Year</b>	<b>Individual Physicians to the Population</b>
2009	1: 3,324
2010	1: 2,893
2011	1: 2,535
2012	1: 2,533
2013	1: 2,399
2014	1: 2,125
2015	1: 2,035
2016	1: 2,065

**Source:** Public Health Resource Report, Public Health Statistics, Ministry of Public Health, 2017.

The research reports on the national health human resource demand prepared by the Human Resource for Health Research and Development Office and International Health Policy Program Office, Ministry of Public Health pointed out that there are more health human resources in various professions than the past because of the government's policy to increase production. Based upon the current health human resource production situation, the human resource demand and the number of human resources in the next decade, or 2026, will be 60,607, while the number in 2026 will increase to 128,729-142,997. This reflects that if the production rate and the oversupply remain the same, the numbers pertaining to the production must be reviewed and the graduate competency must be more consistent with the health system demand (Health focus, 2017).

Regarding human resources of the medical profession, dentists, physical therapists and those practicing traditional medicine/applied Thai traditional medicine, it was found that the number of them over the next 10 years will be sufficient or higher than the national demand. For example, the estimate of the required doctors in 2026 will amount to 38,236-46,946, while the number that will be available in 2026 will be 63,065. It is, therefore, necessary to be very cautious about increasing the

production in these professions. Although the number of nurses, pharmacists, medical technologists and veterinarians in the next 10 years is expected to be lower than the national demand, it is still not much lower. For example, the forecast demand of nurses in 2026 will be 194,205-237,870, while the number that will be available in 2026 will be 180,992-193,048. The forecast demand of dentists in 2026 will be 16,457-20,546 while the number that will be available in 2026 will be 17,415-18,675 (Health Focus, 2017).

Thus, the human resource production policy to increase from the current total production rate may not be necessary, but it can be managed to increase productivity or apply personnel loss reducing measures. This can solve the shortage problem as well.

**Table 3.4** The Ten Highest and Lowest Ratio of Physicians to Population in 2015

<b>Highest Ratio of the Physicians to Population</b>		<b>Lowest Ratio of the Physicians to Population</b>	
1. Bangkok	1:716	1. Bueng Kan	1: 5,906
2. Nakhon Nayok	1: 813	2. Si Sa Ket	1: 5,576
3. Chon Buri	1: 1,135	3. Nakhon Phanom	1: 5,133
4. Phuket	1: 1,205	4. Nong Bua Lam Phu	1: 4,993
5. Khon Kaen	1: 1,265	5. Amnat Charoen	1: 4,753
6. Samut Sakhon	1: 1,350	6. Phetchabun	1: 4,587
7. Chiang Mai	1: 1,398	7. Sakon Nakhon	1: 4,543
8. Phitsanulok	1: 1,406	8. Yasothon	1: 4,501
9. Pathum Thani	1: 1,438	9. Sa Kaeo	1: 4,497
10. Songkhla	1: 1,503	10. Kamphaeng Phet	1: 4,447

**Source:** Public Health Resource Information, Bureau of Policy and Strategy, Ministry of Public Health, 2015 referred to in the Health Information System Development Office, 2017.

Table 3.4 shows that the highest top ten ratio of physicians to the population took place in one province only in the northeast (Khon Kaen), while the lowest ten ratio of physicians to the population took place in up to seven provinces, namely Bueng Kan, Si Sa Ket, Nakhon Phanom, Nong Bua Lam Phu, Amanat Charoen, Sakon Nakhon and Yasothon, respectively.

Given the situation discussed above, it is evident that the root cause of the problem does not depend on medical human resource production, but its distribution to be sufficient in all areas of Thailand. Thus, the production of national health human resources must focus on the solution of human resource distribution in order for the citizens to have equal access to good quality of health human resource services (Health Focus, 2017). This can be accomplished by implementing the following:

- 1) Adjustment of the admission system to admit more students from shortage areas so that they can study at production institutes, which are close to their domicile and after graduation they can work in their domicile.

- 2) Promotion of the admission system of health personnel working to further their study in shortage fields or management of personnel so that they can work in shortage areas.

- 3) Reform of production systems in terms of both educational management and reform of curriculum/learning process in line with people's health demand and Thai society context.

In addition, the Ministry of Public Health should manage the operations based on the suitable skills mix. Some unnecessary tasks should be shifted from health professional groups to informal groups, e.g., volunteers, health care providers and external health personnel. The primary service management should be strengthened through the participation of the general public, public health service providers in all sectors and relevant organizations at all levels by focusing on the promotion of health and transferring service users who overcome the critical condition from the secondary care level or from the tertiary care level to receive services that are closer to home to efficiently use health resources in terms of hospital manpower, tools, equipment and facilities and to reduce the patients' expenses for future health sustainability (Thinakorn Noree et al., 2017).

Moreover, to enable health manpower management to provide maximum efficiency, productivity of health manpower should be increased by supporting the application of replacement technology or replacement manpower so that health manpower can be used properly. Additionally, the development of the working process should be supported to reduce loss. The productivity assessment and development of manpower should be continuously carried out. The innovation development should also be supported to enhance the efficiency, as well as suitable and efficient health human resource retention measures should be formulated, such as employment systems, compensation systems and progress systems (Thinakorn Noree et al., 2017).

The future demand in medical human resources in Thailand is a very challenging issue because Thailand will become an ageing society and confront non-communicable diseases. As a result, personnel production must vary according to the future manpower demand. The “Health Workforce Planning Sub-committee over the Next Decade” under the National Health Commission has forecast the demand for manpower in 2026. The sub-committee also suggested to remain the same production rate of doctors and dentists and to increase the number of professional nurses and pharmacists by focusing on more local students so that they can work in their local areas after graduation in order to have sufficient officials in rural areas and to create equality in accessing good quality of medical services in the future (Health Information System Development Office, 2017).

### **3.3 Medical Schools in Thailand and the New Medical Schools in the Northeast**

#### **3.3.1 Doctor Production**

In the past, with response to medical evolution, it was believed that diseases were caused by natural phenomena. Human beings could overcome diseases through worship, as an example. Based on the evidence gathered, Thai medical evolution took place during the Sukhothai Period. A mortar from the Dvaravati Period (Pre-Sukhothai Period) and The King Ram Khamhaeng Inscription were discovered. The inscription stated that a large herb garden was built on Khao Luang or Khao

Sapphaya, which is currently in Khirimat District, Sukhothai Province. People collected herbs for treatment in case of sickness. Later in the Ayutthaya Period, various chronic diseases took place. Each communicable disease during that time killed a large number of people because no one understood the causes of the diseases and there were no methods to eradicate such diseases. There were not enough doctors for the people. Concerning medical practices in the Ayutthaya Period, it had an evidence that medical practices in that period were mixed and applied from Ayurvedic medicine (also known as Ayurveda) and Chinese medicine, including superstition and astrology to suit community conditions. The main concept of Thai medicine is Ayurveda with the objective of the balance of four elements that are a component of doctors' lives with practices on gratitude. Hermits are regarded as teachers in Thai medicine (Ministry of Public Health, n.d).

The later Thai generation was the foundation and rehabilitation of public health. During the reign of King Rama I to III during the early Rattankosin Period, Thai medicine was an ancient medicine and public health did not make much progress. However, during the reign of King Rama I, the Department of Pharmacy (Krom Mo Rong Phra Osoth) was established, similar to that in the Ayutthaya Period. The medical doctors who were civil servants were called royal doctors (mo luang) and other doctors who provided medical services to the general public were called private doctors (mo ratsadorn or mo chaloei sak). Western medicine began to play a key role in medical and health care in the country in 1828 under the reign of King Rama III. Dr. Dan Beach Bradley, generally known to the people as Mo Bradleyé, an American Christian missionary who came to Thailand in 1835, initiated a disease prevention program for the first time in the country. During the reign of King Rama IV, the Thai medical service was clearly divided into two systems: traditional medicine and modern medicine (Ministry of Public Health, n.d).

Afterwards, Thai medicine was developed. During the reign of King Rama V (Phrabat Somdet Phra Chulachomklao or King Chulalongkorn), a hospital was constructed and completed in 1888 and named Siriraj Hospitalé, also referred to as Wang Lang Hospital, which treated both patients of Thai modern and traditional medicine. It was the first royal permanent hospital. Later in 1893, a medical school (Phaetthayakorn School) was established to teach children to become doctors to

provide services to society. On January 3, 1900, King Rama V and the queen officially opened the medical school and named it Phaetthayakorn School, which was the former name of the current Faculty of Medicine Siriraj Hospital (Faculty of Medicine, Siriraj Hospital, n.d.; Somrat Charuluxananan and Amornpun Sereemaspun, 2012).

The Prince of Chainat Narendorn was the commander of Phaetthayakorn School and he encouraged HRH Prince Mahidol of Songkla, his elder brother to be interested in medicine (Faculty of Medicine, Siriraj Hospital, n.d.). Thus, he studied medicine and public health at Harvard University in the United States of America. Through his steady perseverance, he graduated with a Certificate of Public Health and a Doctor of Medicine Degree (cum laude). He also served as a Thai delegate in negotiations with the Rockefeller Foundation on assistance for Thai medical service development in 1923. He returned to Thailand to develop hospitals and medicine-nursing curriculum (Prince Mahidol Award Foundation under the Royal Patronage, n.d.).

However, Western medicine faced many obstacles because at that time Western medicine was not popular. Siamese people preferred Thai traditional medicine. As for the medical teaching and learning, literacy knowledge was initially required. At the beginning, there were 40 students, but only 13 students remained. More students were later admitted. The program took three years but the curriculum management was uncertain. Initially, medical students earned only 12 baht per month (Somrat Charuluxananan & Amornpun Sereemaspun, 2012).

### **3.3.2 Medical Professors at the Beginning**

Foreign medical study at Siriraj Hospital was started by Dr. Thomas Heyward Hays, an American missionary and lecturer. The medical study at the beginning was scrappy. Medical equipment was also poor. So, it was difficult for teachers to teach because students did not have English skills at all. Later, Dr. George Bradley McFarland, who graduated from surgery and dentistry in the U.S., became a teacher at Siriraj Hospital. At that time, Thai teachers who graduated from medicine helped teaching at the beginning (Somrat Charuluxananan & Amornpun Sereemaspun, 2012).

George Bradley McFarland is a son of Samuel Gamble McFarland. George Bradley McFarland was the founder of the first Western medicine hospital during the Rattanakosin Period in Phetchaburi Province. He was born at Dr. Bradley's medical office at the mouth of Bangkok Yai Canal. He studied at Suan Anan Thonburi School. Then, he obtained surgery and dentistry degrees from the U.S. He could speak Thai well, so medical learning and teaching at Siriraj Hospital was much better. Apart from that, he also produced many medical textbooks to distribute to medical students free of charge. Besides medical teaching, he instilled medical ethics into his students. Apart from his medical success, he compiled a dictionary of Thai-English with 167,546 words. He also adapted English-Thai typewriters and opened a typewriting school. In addition, he was the founder of the Faculty of Dentistry, Chulalongkorn University. Because of his achievement, he was awarded with the Chakrabarti Mala Medal to become Chulalongkorn University's professor, and he was respected by various doctors. Finally, he was named as the first brick of the medical school (Somrat Charuluxananan & Amornpun Sereemaspun, 2012).

### **3.3.3 Operations during the Initial Stage**

Most of operational practices at Siriraj Hospital at the beginning included wound care, suture, bleeding control, normal and practical delivery and splint. Medical students helped in the surgery to be familiar with it and to become fearless. While the first generation of medical students were studying, provincial doctors were required and two of them were requested: Mr. Khemyai and Mr. Soi to be stationed at Phichai and Thonburi, respectively. Both of them had to be doctors despite being students. However, they could work well (Somrat Charuluxananan & Amornpun Sereemaspun, 2012). Dr. Khemyai also had official troops assigned to him to suppress the uprising of the Haw (The Haw (Yunannan Chinese) of Ban Yang in Northern Thailand. When the first batch of medical students had graduated, four of the nine joined the official military to suppress the Haw. George Bradley McFarland requested Dr. Klin Niyomsin, who had just graduated to become a surgery physician, who was the first residency in Thailand. Surgery started when there was no electricity and water supply. Dr. George Bradley McFarland tried to improve surgery by designing a surgery center, an octagonal shape, 20 feet long and 10 feet wide, and 15.5 feet above

the ground. It was the first surgery center. From the surgery photo at the surgery center, an anesthesia provider stood above a patient. An anesthetist at that time was a young surgeon (Somrat Charuluxananan & Amornpun Sereemasapun, 2012).

### **3.3.4 Current Medical Services**

Most public health services of the primary service system under the National Health Security System are provided by the private sector. Most primary services are under the Ministry of Public Health (94.75%), followed by the private sector and the public sector that is local government, and the public sector outside the Ministry of Public Health, universities, Ministry of Defence and permanent service units serving as the Contracting Unit for Primary Care (Supattra Srivanichakorn et al., 2015). Public service units are managed by a network. A central management unit is under the administration of the hospital in the form of a contracting unit for primary care, which is currently developed in the form of a district health system (DHS) because of the policy supported by the Ministry of Public Health, in cooperation with other agencies such as the National Health Security Office and the Thai Health Promotion Foundation. In 2013, the Ministry of Public Health announced the district health system policy, which is a significant policy for developing a network for primary care. Most contracting units for primary care use state hospitals as a center of management despite district health systems working more with the Ministry of Public Health, District Public Health Office, sub-district health promoting hospitals, local government and civil sector, as well as the civil sector as the network management committee (Supattra Srivanichakorn et al., 2015).

Health services range from primary health care (at sub-district level), secondary health care (at district/provincial level) and tertiary health care (at center level). In practice, high service venues also include primary health service units. Service units at each level are responsible for receiving and transferring patients for treatment because the ability to provide services varies according to knowledge background and sizes of service venues. Thus, center hospitals, community hospitals, general hospitals, public health service centers and public health volunteers are mentors for each other in accordance with their ability. They also promote and support the patient transfer system to be more efficient.

#### 3.3.4.1 Organizations under other ministries are:

##### 1) Ministry of Defence

Organizations under the Ministry of Defence are those responsible for health care of military forces for national security. It consists of a health network of the Royal Thai Army Medical Department, e.g., Phramongkutklo Hospital and four national defense forces.

##### 2) Ministry of Education (University Hospitals)

These hospitals belong to universities and medical schools of the faculty of medicine or college of medicine, most of which are under the Ministry of Education. They include medical centers at the super tertiary care level, which have potential and maximum readiness to provide services and treatment because they are hospitals used to produce medical personnel and to conduct research. In Thailand, there are 12 hospitals that have been ranked according to their total number of beds, as follows:

(1) Siriraj Hospital and Siriraj Piyamaharajkarun Hospital, Faculty of Medicine Siriraj Hospital, Mahidol University.

(2) Maharaj Nakorn Chiang Mai Hospital, Faculty of Medicine, Chiang Mai University.

(3) King Chulalongkorn Memorial Hospital of the Thai Red Cross Society, in collaboration with the Faculty of Medicine Chulalongkorn University.

(4) Phramongkutklo Hospital, Royal Thai Army Medical Department, Royal Thai Army, in collaboration with Phramongkutklo College of Medicine.

(5) Ramathibodi Hospital, Faculty of Medicine Ramathibodi Hospital, Mahidol University.

(6) Vajira Hospital, Bangkok, in collaboration with the Faculty of Medicine Vajira Hospital, Navamindradhiraj University.

(7) Rajavithi Hospital, Department of Medical Services, Ministry of Public Health in collaboration with College of Medicine, Rangsit University.

(8) Srinagarind Hospital, Faculty of Medicine, Khonkaen University.

(9) Songklanagarind Hospital, Faculty of Medicine, Prince of Songkla University.

(10) Thammasat University Hospital under the supervision of the Office of the Rector, Thammasat University.

(11) HRH Princess Maha Chakri Sirindhorn Medical Center, Faculty of Medicine, Srinakharinwirot University.

(12) Naresuan University Hospital, Faculty of Medicine, Naresuan University.

(13) Under other agencies

Medical Service Department, Bangkok, Vajira Hospital is a university hospital, which is directly managed by the Faculty of Medicine Vajira Hospital, Navamindradhiraj University. However, Vajira Hospital, Bangkok Metropolitan Administration General Hospital, Charoenkrung Pracharak Hospital, Taksin Hospital, Ratchaphiphat Hospital, Lat Krabang Hospital, Wetchakarunrusm Hospital, Sirindhorn Hospital and Luang Pho Thawisak Chutinatharo Uthit Hospital are under the same affiliation.

Other organizations that do not belong to ministries include the Princess Mother's Medical Volunteer Foundation, the Thai Red Cross Society, public health foundations, etc. (Chatsumon Phrutthipinyo, 2017, pp. 32-34).

Most major organizations responsible for medical study in Thailand are under the Ministry of Education. There are a total of 22 local medical schools whose doctor of medicine programs are certified by the Medical Council of Thailand. They are classified as public and private medical schools as listed below:

1) Public Medical Schools

(1) Faculty of Medicine Siriraj Hospital, Mahidol University

(2) Faculty of Medicine, Chulalongkorn University.

(3) Faculty of Medicine, Chiang Mai University

(4) Faculty of Medicine, Ramathibodi Hospital, Mahidol

University

(5) Faculty of Medicine Prince of Songkla University

(6) Faculty of Medicine, Khon Kaen University

(7) Phramongkutklao College of Medicine

- (8) Faculty of Medicine, Srinakharinwirot University.
  - (9) Faculty of Medicine, Thammasat University
  - (10) Faculty of Medicine Vajira Hospital, University of Bangkok Metropolis (former name was BMA Medical College & Vajira Hospital)
  - (11) Faculty of Medicine, Naresuan University
  - (12) Faculty of Medicine, Mahasarakham University
  - (13) Institute of Medicine, Suranaree University of Technology
  - (14) College of Medicine and Public Health, Ubon Ratchathani University
  - (15) Faculty of Medicine Burapha University
  - (16) School of Medicine, Walailak University
  - (17) Faculty of Medicine, Princess of Naradhiwas University
  - (18) School of Medicine, University of Phayao
  - (19) School of Medicine, Mae Fah Luang University
  - (20) Faculty of Medicine, King Mongkut's Institute of Technology Ladkrabang
- 2) Private Medical Schools
- (1) College of Medicine, Rangsit University
  - (2) Faculty of Medicine, Siam University: On July 12, 2013, the Thai Medical Council Committee approved the medical curriculum (new curriculum in 2012) at its meeting no. 7/2555. It is the second private university approved by the Medical Council of Thailand to admit 48 students in the academic year 2013 (Faculty of Medicine, Siam University).

### **3.3.5 Birth of New Medical Schools in Thailand**

Because of a continuous shortage of doctors, the Medical Council of Thailand cooperated in promoting the production of standard doctors at universities. In the past, the Medical Council of Thailand formulated a policy to produce additional doctors in the network of the 12 existing medical schools and five additional medical schools. The Medical Council of Thailand had to control new medical schools to admit medical students in accordance with their readiness. But the admission of new medical students

was higher than the quota approved by the Medical Council of Thailand because hospitals were not ready for training. After graduation, these medical students will not be eligible for a medical practitioner's license. As a result of the doctor shortage, as well as insufficient doctor distribution, new medical schools were later founded, namely in different faculties of medicine, including Srinakharinwirot University; Faculty of Medicine, Thammasat University; Faculty of Medicine Vajira Hospital, University of Bangkok Metropolis; University of Bangkok Metropolis; Faculty of Medicine, Naresuan University; Faculty of Medicine, Mahasarakham University; Faculty of Medicine Burapha University; Faculty of Medicine, Princess of Naradhiwas University; College of Medicine and Public Health, Ubon Ratchathani University; Institute of Medicine Suranaree University of Technology; and School of Medicine, Walailak University.

### **3.3.6 New Northeastern Medical Schools**

There are three new northeastern medical schools, as follows:

#### **3.3.6.1 The College of Medicine and Public Health, Ubon Ratchathani University**

The College of Medicine and Public Health, Ubon Ratchathani University was founded on December 17, 2002 in accordance with Ubon Ratchathani University's regulations in 2002 as an organization under the supervision of Ubon Ratchathani University. It was managed in preparation for being an autonomous university from 2001 to 2002. Dr. Paichit Pawabutr, Former Permanent Secretary of the Office of the Permanent Secretary, Ministry of Public Health organized a meeting in 2001 among Sappasittipasong Hospital, Ubon Ratchathani; Faculty of Medicine, Khon Kaen University and Ubon Ratchathani University to discuss the production of more doctors in the lower northeastern region. Later in 2003, at the University Council meeting no. 7/2546, it was resolved to appoint Prof Dr. Prasit Pengsa as the dean or the founder of the College of Medicine and Public Health Establishment Project. In addition, the doctor of medicine program (new curriculum in 2004) was proposed at the University Council meeting on November 8, 2003 and was approved by the Medical Council of Thailand on July 26, 2006 (College of Medicine and Public Health, Ubon Ratchathani University, n.d.).

The College of Medicine and Public Health admitted the first batch of 50 medical students in academic year 2006, the second batch of 16 medical students in academic year 2007 and the third batch of 16 medical students in academic year 2008. Currently, there are a total of 82 medical students. In 2005, at the University Council meeting no. 5/2548, the Master of Science Program (Public Health) was approved on November 19, 2006. The first batch of 49 public health students was admitted in academic year 2006, the second batch of 96 students in academic year 2007 and the third batch of 109 students. At present, there are 254 public health students in total. Later in 2007, the public health curriculum (continuous) was approved at the University Council meeting no. 1/2550 on March 17, 2007. The first batch of 36 students of the public health curriculum (continuous) was admitted in academic year 2007 and the second batch of 34 students in academic year 2008. Currently, there are 70 students for the continuous public health program. In 2008, there were 406 students at the College of Medicine and Public Health and there were 88 personnel comprising 25 academic staff, 44 support staff, six staff at the health center, 11 child development center staff and two advisors (College of Medicine and Public Health, Ubon Ratchathani University, n.d).

The administrative structure of the College of Medicine and Public Health consists of the Office of the Dean, the Doctor of Medicine Program and School of Health Services. In 2004, Ubon Ratchathani University announced that the community health center and child development center will now be under the supervision of the College of Medicine and Public Health. Its vision is to produce graduates and research works to meet professional standards, to have a strong network, and to solve community health problems. The missions (the College of Medicine and Public Health, Ubon Ratchathani University, n.d.) are as follows:

- 1) Produce standard quality of graduates aimed at academic and professional excellence.
- 2) Create knowledge and innovation applied to develop the quality of life of people in the northeastern region and Mekong region.
- 3) Provide participatory academic services to develop quality of life of people in the northeastern and Mekong regions.

4) Restore arts, culture and local wisdom, as well as to create an understanding in diverse culture in the Mekong region.

Currently, the College of Medicine and Public Health, Ubon Ratchathani University plans to admit medical students via the Collaborative Project to Increase Production of Rural Doctors (CPIRD) from four provinces, namely Ubon Ratchathani, Yasothon, Si Sa Ket and Amnat Charoen which have been divided into two groups: community track (CPIRD) and inclusive track (CPIRD).

#### 3.3.6.2 Institute of Medicine, Suranaree University of Technology

Since Thailand has faced a shortage of doctors, the cabinet resolved on September 12, 1992 that the Ministry of University Affairs could increase the admission of normal students (340 students per year) from 1993. Later in 1993, the Institute of Medicine, Suranaree University of Technology was approved to be founded in all of the different regions in Thailand. It was published in the Royal Thai Government Gazette, Special Issue, Page 22, Volume 110, Section 210 dated December 15, 1993 (Institute of Medicine, Suranaree University of Technology, n.d.).

Suranaree University of Technology submitted a project to establish the Institute of Medicine in August 1993. At its meeting dated January 18, 1994, the cabinet agreed to approve it in principle and asked the Ministry of University Affairs to prepare the details of readiness and possibility of the project. On June 7, 1994, the cabinet agreed in principle that the Ministry of Public Health prepare the project to increase production of rural doctors between 1996 and 2006. Later, the Minister of University Affairs and the Minister of Public Health signed a cooperation agreement to increase production of rural doctors between the Ministry of Public Health and the Ministry of University Affairs on December 19, 1994 (Institute of Medicine, Suranaree University of Technology, n.d.).

The Institute of Medicine, Suranaree University of Technology prepared the Health Science System Establishment Project in January 1995 comprising the Institute of Medicine; Institute of Dentistry; Institute of Pharmacy; Institute of Nursing; and the Medical Center. Initially, the Institute of Medicine, the Institute of Nursing and the Medical Center were established to produce doctors, nurses and technical officers, which comprised higher education personnel that were in shortage. Later in 1997, Thailand experienced an economic crisis, so the project was stopped. In

1998, the Institute of Medicine developed five bachelor's degree curricula. The Academic Senate Suranaree, University of Technology agreed on November 28, 1998 at its meeting no. 8/2541 to establish the following courses: 1) Bachelor of Science Program in Environmental Health (new curriculum in 1998), 2) Bachelor of Science Program in Occupational Health and Safety (new curriculum in 1998), 3) Bachelor of Science Program in Medical Technology (new curriculum in 1998), 4) Bachelor of Nursing Science Program (new curriculum in 1998), and 5) Doctor of Medicine Program (modified in 1998), Institute of Medicine Suranaree University of Technology, n.d.).

Later in academic year 1999, the Institute of Medicine Suranaree University of Technology provided two bachelor programs (four years), namely the Bachelor of Science Program in Environmental Health and the Bachelor of Science Program in Occupational Health and Safety. Later in 1999, the Institute of Medicine offered two bachelor of science programs (four-year course): the Bachelor of Science Program in Environmental Health and the Bachelor of Science Program in Occupational Health and Safety (Institute of Medicine Suranaree University of Technology, n.d.).

The Institute of Medicine, Suranaree University of Technology is the first medical institution under the supervision of the government and the 12<sup>th</sup> medical institution in Thailand. It was established in accordance with Suranaree University of Technology's regulations pertaining to the establishment of the Institute of Medicine announced in the Royal Thai Government Gazette, Special Issue, Page 22, Volume 110, Section 210 dated December 15, 1993. The Thai Medical Council Committee passed a resolution to approve the Doctor of Medicine Program (modified in 2007) of the Institute of Medicine Suranaree University of Technology in academic year 2006. The university admitted the first batch of medical students (48 students per year) under the project to increase doctor and nurse production in cooperation with Suranaree University of Technology, the Office of the Higher Education Commission and the Ministry of Public Health. Later in 2007, additional students were admitted as part of the Collaborative Project to Increase Production of Rural Doctors and the One District One Doctor Project (The Institute of Medicine, Suranaree University of Technology, n.d.).

The vision of the Institute of Medicine, Suranaree University of Technology is “to be a leading institute of medicine accepted at the ASEAN level to produce graduates, scientists and technologists, who are leaders in taking care of the holistic health system of communities by 2026”. There are five missions, as follows: (the Institute of Medicine, Suranaree University of Technology, n.d.).

1) Provide education to produce graduates who can be leaders in holistic community treatment.

2) Promote research focusing on solving community problems that are accepted at national and international levels.

3) Promote innovation production and provide academic services to solve community problems.

4) Develop organizations to be of good quality and meet the international standards.

5) Maintain and promote organizational culture.

Currently, the Institute of Medicine, Suranaree University of Technology plans to admit medical students under two projects: the Collaborative Project to Increase Production of Rural Doctors (CPIRD) from four provinces, namely Nakhon Ratchasima, Chaiyaphum, Buri Ram and Surin which have been divided into two groups: CPIRD: Community track and CPIRD: Inclusive track, as well as the One District One Doctor (ODOD) Project.

#### 3.3.6.3 Faculty of Medicine Mahasarakham University

The Faculty of Medicine, Mahasarakham University was officially established as an internal agency as per the resolution adopted at the University Council Meeting No. 10/2546 dated November 21, 2003. Prof. Dr. Somporn Pothinam was the first dean of the Faculty of Medicine. At the beginning, the office was located in the Bio Science Building, Faculty of Science, Room 305, 3<sup>rd</sup> Floor, Kham Rieng Campus (Mor Mai). The Bachelor of Science Program in Applied Thai Traditional Medicine (Continuous Module) was transferred from the Faculty of Pharmacy and Health Sciences and offered to two batches of 84 students on January 15, 2004. The first batch of 54 students graduated in academic year 2004. The Bachelor of Science Program in Applied Thai Traditional Medicine was revised to accept transfer credits. At Mahasarakham University’s Council Meeting No. 5/2548 on May

27, 2005, it was agreed to approve the curriculum (revised curriculum 2005) (Faculty of Medicine, Mahasarakham University, n.d.).

Later in November 2005, the Faculty of Medicine was moved to be situated at 269, Nakhon Sawan Road, Talat Sub-district, Mueang, Mahasarakham Province (the Old Campus (mor gao-Thai). Later on July 1, 2004, a medical service center (Kham Riang Campus) was opened and in February 2006, a medical service center was opened in urban areas to serve as a training center for students, including a medical service center for students, personnel and general citizens. This medical center was known as the National Health Security Office, Region 7, Khon Kaen. The Medical Service Center was assessed by the National Health Security Office, Region 7, Khon Kaen to become the Contracting Unit for Primary Care (CUP) and the Medical Service Center in Kham Riang area as the PCU on October 1, 2009 (Faculty of Medicine, Mahasarakham University, n.d.).

Concerning the curriculum provided, the Medical Council of Thailand approved the Doctor of Medicine Program (six years) on March 9, 2006, which was approved at the Mahasarakham University's Council Meeting No. 5/2549 on May 26, 2006 (new program in 2006). In academic year 2006, the first batch of 48 medical students and the first batch of 75 students for the Bachelor of Science Program in Applied Thai Traditional Medicine (four years) were admitted. The Doctor of Philosophy Program in Health Sciences (new program in 2006) was provided and approved by the Mahasarakham University Council at its meeting no. 8/2549 on August 25, 2006. On July 12, 2006, the Medical Service Center of Applied Thai Traditional Medicine was opened to provide services, such as Thai massage, Ayurveda and a pharmacy (Faculty of Medicine, Mahasarakham University, n.d.).

In academic year 2007, the first batch of six students was admitted. Then, the Bachelor of Science Program in Applied Thai Traditional Medicine (revised in 2007) was approved at the Mahasarakham University's Council Meeting No. 9/2007 on September 28, 2007 and was certified by the Bureau of Sanatorium and Healing Arts via the Applied Thai Traditional Medical Profession Committee on August 25, 2008. In addition, in 2009, the Bachelor of Science Program in Applied Thai Traditional Medicine was renamed the Bachelor of Applied Thai Traditional Medicine Program. Additionally, a medicine and herbal production center was

founded to support teaching of the Bachelor of Applied Thai Traditional Medicine Program and to produce medicine and herbal products on May 17, 2007. Later in 2010, the faculty offered a new program that was passed by the Mahasarakham University Council at its Meeting No. 3/2553 on March 26, 2010, which approved the Bachelor of Science Program in Emergency Medical Science (four years), a new program in 2010. The first batch of 40 students was admitted in academic year 2010 (Faculty of Medicine, Mahasarakham University, n.d.).

On April 1, 2011, Prof. Dr. Reon Somana was appointed as the second dean of the Faculty of Medicine and in March 2014 it was moved to the Faculty of Medicine, Mahasarakham University Hospital, a 13-storey building. The construction was completed and its services were opened to OPD, emergency and IPD patients (Faculty of Medicine, Mahasarakham University, 2018). Later on May 25, 2012, the Master of Science Program in Health Science Education (two years), which was a new curriculum, was opened and approved at the Mahasarakham University Council Meeting No. 5/2555. Eight students were admitted in the second semester in 2012. A public hearing concerning the responsibilities of the Faculty of Medicine for communities was also carried out. Six communities, namely Si Sawat 1, Si Sawat 2, Si Sawat 3, Patchim That 1, Patchim That 2 and Tak Sila in Talat Sub-district, Mueang District, Mahasarakham Province expressed opinions relating to the treatments to be offered at the Faculty of Medicine, Mahasarakham University (Faculty of Medicine, Mahasarakham University, n.d.).

In 2013, the first batch of 44 students of the Faculty of Medicine, Mahasarakham University graduated and obtained their medical licenses. Later in March 2014, health care services were moved from the medical center building in Mueang District to the Faculty of Medicine, Mahasarakham University Hospital, a place to accommodate the expansion of 230 beds. Then, this hospital provided services to emergency and IPD patients 24-hours a day on June 16, 2014. The services included general clinics and special clinics comprising skillful doctors and personnel, as well as modern medical equipment. Initially, services were provided to 30 beds (Faculty of Medicine, Mahasarakham University, n.d.).

On June 30, 2014, the first batch of 29 graduates for the Bachelor of Science Program in Emergency Health Science was awarded with paramedic badges

chaired by Dr.Anucha Setthasatien, Secretary-General of the National Institute of Emergency Medicine.

Since the founding of the faculty, five administrators, have been the deans of the Faculty of Medicine, included Prof. Somporn Pothinam; Prof. Dr.Reon Somana; Assoc. Prof. Suchat Areemit; Asst. Prof. Dr.Rath Sornsuphap; and the current dean, Prof. Emeritus Maj. Gen. Vanich Vanapruks, who has been the dean since May 1, 2017 (Faculty of Medicine, Mahasarakham University, 2018).

The vision of the Faculty of Medicine, Mahasarakham University is to be “a leading Faculty of Medicine creating innovation of holistic community health care (Faculty of Medicine, Mahasarakham University, 2018). Its four missions include:

- 1) Produce medical graduates with quality to meet international standards and to provide holistic health care to people.
- 2) Produce good quality research that can integrate teaching and academic services to be applied for benefits to communities and society.
- 3) Provide holistic services to communities so that communities are strong and independent.
- 4) Preserve arts, culture, tradition and local wisdom.

At the present time, the Faculty of Medicine, Mahasarakham University is planning to admit 40 medical students, who have domicile in seven northeastern provinces: Kalasin, Maha Sarakham, Roi Et, Sakon Nakhon, Nakhon Phanom, Mukdahan and Khon Kaen for the Collaborative Project to Increase Production of Rural Doctors (CPIRD) and 20 students, who have domicile in three provinces: Maha Sarakham, Roi Et and Kalasin for the One District One Scholarship Program (ODOD) (Faculty of Medicine, Maha Sarakham University, n.d.).

## **CHAPTER 4**

### **METHODOLOGY**

The research entitled “Retention of Talented Personnel in the New Medical Schools in Northeastern Thailand” is aimed at studying factors affecting the retention of talented people and the processes to be used to attain the retention of talented personnel in the new medical schools in the northeast in order to serve as a guideline for development of practices that can be used to retain talented personnel. To achieve the research objectives, the following methodologies were determined:

- 4.1 Research Model
- 4.2 Areas and Units Used for Analysis
- 4.3 Data Collection Strategy
- 4.4 Data Analysis
- 4.5 Trustworthiness
- 4.6 Human Research Ethics

#### **4.1 Research Model**

This research has applied the qualitative research method, which is based on philosophy of interpretivism. Merriam (1997) explained that qualitative research is a method suitable for work that does not aim to test theories or measure variables, but instead aims to create an understanding in phenomena through the point of view of actors in various relevant groups. This method has advantages because it can help researchers be interested in studying phenomena in that context. In addition, such method enables researchers to obtain deep and versatile information to better show complexity of studied phenomena (Geertz, 1973). Qualitative research also helps this researcher answer how and why phenomena occur. This will help researchers in seeking the causes of phenomena. Based on such strong points, this researcher observed that the application of the qualitative research was appropriate for this

research, as this researcher wished to study phenomena in order to acquire in-depth information on human resource practices used at each new medical school in the northeast, especially the retention of talented personnel or medical professors. This can be used as a guideline for developing a medical personnel production policy. Then, the results of the study can be used to develop variables or grounded theories. Therefore, after using the results of the temporary summary along with variables from the analysis of theories, the overall information will be acquired and relevant factors can be analyzed, which can lead to better retention of talented personnel in the new medical schools in the northeast. This researcher has divided the research into three phases, as follows:

Phase 1, to meet the research objective no. 1, involves the study of factors affecting the retention of talented people in the new medical schools in the northeast, creates an understanding about the resignation of medical professors, its major causes and factors, as well as analyzes such causes and how they affect the retention of medical professors. The results of the qualitative research in Phase 1 will be applied to be a guideline for the analysis of relevant concepts, theories and research. The revised conceptual framework will be applied for further study in Phase 2.

Phase 2, to meet the research objective no. 2, involves the study of the methods used for retaining talented personnel in the new medical schools in the northeast by analyzing the resignation problem of medical professors from the research obtained in Phase 1. Then, it will be analyzed as a guideline to retain talented personnel in the new medical schools in the northeast in this phase in order to know how to retain talented personnel in each new medical school in the northeast.

Phase 3, to meet the research objective no. 3, involves the study of the guidelines for retaining talented personnel in the new medical schools in the northeast. After the studies conducted in Phases 1 and 2, this researcher will analyze factors that have positive effects on the retention of talented personnel in the new medical schools in the northeast in order to formulate guidelines for developing retention models. Additional information will then be added from qualified professors in medical education to adjust the guidelines for developing the retention of talented personnel in the new medical schools in the northeast to be complete as much as possible. Finally, the results of the study will be summarized.

## 4.2 Areas and Units Used in the Analysis

Data collection areas designated by this researcher include three new medical schools in the northeast, namely the Institute of Medicine, Suranaree University of Technology; College of Medicine and Public Health, Ubon Ratchathani University; and Faculty of Medicine Mahasarakham University. With respect to this researcher's study of, and information gathered about, medical human resource situations and medical personnel production, including the statistics about the medical personnel shortage analyzed in Chapter 3, the area with the greatest shortage of medical personnel in rural areas took place in the northeastern region and the ratio of doctors to the population was the most unequal. In addition, this researcher's interview with the administrators from the new medical schools in the northeast revealed that the turnover rate of medical professors is high. As this problem may affect the current and future production process of medical human resources, this researcher has selected the three mentioned new medical schools in the northeast as research areas (Table 4.1).

**Table 4.1** New Medical Schools in the Northeast Used in the Study

<b>Province</b>	<b>Medical Schools</b>
Nakhon Ratchasima	Institute of Medicine, Suranaree University of Technology
Ubon Ratchathani	College of Medicine and Public Health, Ubon Ratchathani University
Mahasarakham	Faculty of Medicine, Mahasarakham University

Concerning the study of each medical school, this researcher identified key analysis units, which included deans and deputy deans related to personnel management to lead to the retention of human resources and personnel management policies, including human resource divisions of the medical schools so that relevant data and documents could be collected. This researcher also collected additional information from medical professors in the three new medical schools in the northeast to understand the causes and factors of medical professors' continuous working at that particular location, as well as information from qualified people relating to medical

schools, e.g., qualified personnel from older medical schools, and the Medical Council Committee to review the acquired information for further data analysis, as identified in Chapter 6.

### **4.3 Data Collection Strategy**

#### **4.3.1 Data Collection Methods**

To collect versatile data and to verify the validity of the data, this researcher collected information from many sources, namely documents and the interviews together with observation.

4.3.1.1 Primary information includes the in-depth interviews used by this researcher. The in-depth interviews involve the individual interviews with the target groups concerning the information about the retention model of talented personnel, including medial professors at the organization and individual levels. Data was collected from the interviews with the administrators of the new medical schools in the northeast, as well as the interviews with the HR divisions of medical schools in order to gather data about relevant documents. After collecting such information, this researcher gathered additional data from medical professors working in the three new medical schools in the northeast through the interviews and observation. Additionally, more information was collected from qualified personnel relating to medical schools, such as qualified personnel from older medical schools and the Medical Council Committee. The interview questions used at the new medical schools were determined in accordance with the following research objectives:

**Table 4.2** Interview Questions of Medical Professors Working in the New Medical Schools in the Northeast

Objectives	Questions
1. To study factors affecting the retention of talented personnel in the new medical schools in the northeast.	What are the factors concerning the resignation of medical professors in the new medical schools?
2. To study how to retain talented personnel in the new medical schools in the northeast.	<p>What factors make you continue working at the organizations?</p> <p>What are your opinions about the following issues (compensation, welfare, performance assessment systems, work characteristics, work environment and career path)</p>
3. To study the development guidelines for retaining talented personnel in the new medical schools in the northeast.	<p>What are your suggestions about the organization's personnel retention policy?</p> <p>What will you suggest for the future management of new medical schools?</p>

The following questions were posed to the administrators of the new medical schools in the northeast in the interviews:

1) Organization Context

(1) In your opinion, how is the situation concerning medical professors' resignation within your organization?

(2) Does your organization face a shortage of medical professors?

(3) Are medical professors necessary for your organization? How?

(4) What are the problems and causes of medical professors' resignation?

(5) In your point of view, what factors make medical professors want to still work at your organization?

## 2) Human Resource Management Policy Context

(1) What are the current concrete models pertaining to medical professors' retention at your organization?

(2) Does your organization face problems and obstacles relating to the retention of medical professors? How?

(3) What are the trends towards developing the management of talented personnel, e.g., medical professors? What are your suggestions and guidelines for the retention of such personnel, which are different from the traditional ones?

4.3.1.2 Secondary information includes medial statistics data and human resource management data of the new medical schools in the northeast through the data collection from human resource agencies, academic journals, textbooks, strategic plans, policies, laws and websites related to the health manpower.

### **4.3.2 Data Transcription**

The in-depth interviews of the sample groups of the new medical schools were divided into three sub-groups, as follows:

Group 1 involved the interviews of nine administrators from the three new medical schools in the northeast comprising deans and deputy deans or other staff assigned by the deans to participate in such interviews.

Group 2 involved the interviews of 27 medical professors working in the new medical schools in the northeast.

Group 3 involved the interviews of two academics who have academic positions/qualifications or are related to medical education or the Medical Council Committee.

The above three groups were encoded, as shown in the table below.

**Table 4.3** Encoding of Sample Groups

<b>Name of Agency</b>	<b>Interviewees</b>	<b>Code</b>
College of Medicine and Public Health, Ubon Ratchathani University	Administrators Medical professors	EA 1 - EA4 A1-A7
Institute of Medicine, Suranaree University of Technology	Administrators Medical professors	EB 1- EB 3 B 1- B 11
Faculty of Medicine Mahasarakham University	Administrators Medical professors	EC1 – EC2 C1- C9
Qualified academics	Qualified academics	D1-D2

This researcher prepared the following steps for producing the data collection tools and testing the validity of those tools.

1) This researcher reviewed the literature and research relating to the retention of talented personnel in order to identify issues and questions for the interviews. Initially, this researcher determined the scope of questions stressing factors affecting the retention of talented personnel in new medical schools.

2) This researcher submitted the questions to the Ubon Ratchathani University Research Ethics Committee for approval and/or revision in accordance with the human research ethics principle (Appendix C).

3) This researcher sent the revised questions to advisors, qualified people related to the administration of medical schools, administrators, and operators concerning HR management of the new medical schools, for considering questions, their content and clarity.

4) This researcher tested the revised interview form on the collection of primary data at Ubon Ratchathani University and found additional issues, especially topics related to the workload of medical professors. This researcher, therefore, used such issues to revise the questions for the interviews.

5) This researcher used the revised interview questions to collect real data (Appendix A).

#### **4.4 Data Analysis**

During the data analysis, this researcher applied the inductive method by identifying analysis issues and classifying information from the collected data and from the temporary conceptual framework based on the diversity of data in each context. The data analysis techniques concern data cutting, data reduction, and issue conclusion comprised the production of themes, diagrams to explain the data relationship, and conclusions (Barnard & Ryan, 2010).

Data analysis involves two main issues: seeking types of phenomena and providing an explanation of those types, including why and how. This researcher identified, developed and interpreted the concepts, as well as presented them through this researcher's point of view (Bernard & Ryan, 2010, pp. 109-111). This researcher would like to explain types and links to the identified problems and major causes of the resignation of talented personnel in the new medical schools in order to find out how to retain those talented personnel.

In this research, this researcher used thematic analysis to analyze the data. This researcher applied the benefits of the conceptual framework based on the literature review to determine the themes. This framework is regarded as a guidance map that covers various significant issues, along with the benefit of field data collected during the study, which varies according to each context. This researcher commented that this data analysis method is suitable and beneficial for this research because thematic analysis is a method that helps to identify, analyze and report the issues based on the acquired information (Braun & Clark, 2006). At the beginning, this method helped this researcher to arrange data in order and describe in-depth data in more detail. More importantly, this method also helped this researcher to interpret information in different aspects relating to the research topics (Boyatzis, 1998 as cited in Braun & Clark, 2006). The results often made much more progress than those specified by this researcher in the conceptual framework. Therefore, this method has strong points, which helped this researcher to be flexible and independent to analyze the data. At the same time, it also helped the analysis to be more intensive and reflect the data complexity. This method suits the research nature required by this researcher to present the policies, guidelines, as well as problems and obstacles that affect the

retention of talented personnel in the new medical schools in the northeast in diverse aspects. In each case study, there are new attitudes apart from the topics identified by this researcher in questions or the conceptual framework.

During the data analysis, this researcher divided the analysis into five steps, which are applied from the guidelines proposed by Braun and Clark (2006), as follows: 1) familiarity with data, 2) basic encoding, 3) thematic searching, 4) review and naming of themes and 5) research report writing.

#### 1) Data Familiarity

During this step, this researcher familiarized herself with the large amount of collected data by organizing it in order and classifying it into various groups, such as official documents, interview transcription and field records. This step was beneficial to help this researcher prepare documents more clearly and help this researcher to be familiar with the data and analyze the primary data in terms of trends and the overall picture of the research.

#### 2) Basic Encoding

The encoding process for the analysis of the primary data was implemented by this researcher after interview transcription. Major codes were determined from the answers from the interviews. They are words concerning analysis issues, e.g., workload, medical services, job satisfaction, organizational engagement and compensation. They were considered together with the context of the case study. Such codes were generated by this researcher from the collected information. In this step, this researcher used packaged software to analyze data from the qualitative research to determine basic codes. This is beneficial to the collection of answers from the interviews for explaining each case study.

#### 3) Theme Searching

During this step, the codes generated were grouped by this researcher to search for themes and models acquired from the interviews and document study. This researcher regrouped such codes in a wide aspect; for example, codes for “workload” and “compensation” were grouped in the theme of “job satisfaction”, or the codes for “work environment” and “domicile” were grouped under the theme of “organizational engagement etc.

#### 4) Reviewing and Naming Themes

During this step, different themes were reviewed and categorized again. This researcher distanced this step from the preceding step for a while before revising similar themes, which were grouped together. The final determination step pertaining to themes was considered by this researcher based on the content and information from the interviews and documents, along with the temporary conceptual framework from the literature review comprising the concepts, theories and relevant research in order to present all complete issues for further analysis.

#### 5) Writing Research Reports

In this step, all information was made clear and complete. This researcher used various themes from the data to identify topics to explain the results of the study. This created an understanding of the topics and the relations linking to other topics in preparation for the report.

### **4.5 Trustworthiness**

In terms of the qualitative research, trustworthiness involves the reliability and validity of the research results. Academics (Johnson, 1997; Newman and Benz 1998) suggested several strategies to test the trustworthiness of data. One of the methods used for testing trustworthiness is triangulation, which can be carried out in different ways in terms of information, methods and theories. This researcher used two methods of triangulation as follows:

1) Data triangulation focuses on verifying information if it is correct, based on the information sources, using the triangulation of data from personnel sources. This researcher collected data in each case from various groups of interviewees, including administrators from the new medical schools, medical professors and support staff responsible for HR management in order to acquire a wider point of view related to the retention of talented personnel.

2) Methodological triangulation is a method of data collection to gather information about the same topics. This researcher analyzed documents together with the semi-structural interviews and non-participatory observation for the study of each case.

#### **4.6 Human Research Ethics**

This research is adhered to the morality and ethics of the research in accordance with this researchers' roles. The following procedures were followed:

- 1) Research proposal was submitted to the Ubon Ratchathani University Research Ethics Committee for approving the research ethics in line with the regulations of Ubon Ratchathani University, with the research proposal code of UBU-REC-33/2560.

- 2) During data collection, the rights of the informants, who are the target groups, are protected. This researcher explained the research objectives to key informants, as well as the benefits to be gained from this research. This researcher also assured them that their information will be kept confidentially and that the overall acquired information will be analyzed for this research project only.

## **CHAPTER 5**

### **RESULTS OF THE STUDY**

In this chapter, this researcher has presented the results of the study on the retention of talented personnel in the new medical schools in northeastern Thailand based on qualitative research. The aim of the research is to explain the retention methods of talented personnel, identify factors affecting the retention of talented personnel and develop guidelines for developing the retention of talented personnel in the three new medical schools in northeastern Thailand. Since this research passed the consideration of ethics in human research, the results of the study have been presented using the assumed names in terms of key informants and the three medical schools under the Faculty of Medicine, University A, the Faculty of Medicine, University B and the Faculty of Medicine, University C.

Information was collected based on the in-depth interviews using the semi-structured interview technique, comprising open-ended questions and non-participatory observation. The key informants included administrators of the new medical schools, namely deans, deputy deans and medical professors working in the new medical schools in northeastern Thailand. In addition, this researcher has presented the information from the interviews with relevant experts. This is regarded as the review of data obtained from medical professors and administrators.

#### **5.1 General Information**

##### **5.1.1 Background Information of the Key Informants**

Personal information was asked of medical professors with the qualifications of the Doctor of Medicine under the new medical schools in northeastern Thailand. They are the key informants, which are summarized in Table 5.1.

**Table 5.1** Background Information of Medical Professors Working in the New Medical Schools in Northeastern Thailand

<b>Personal Background Information</b>	<b>Quantity (n=27)</b>	<b>Percentage</b>
<b>1. Gender</b>		
Male	7	25.93
Female	20	74.07
<b>Total</b>	<b>27</b>	<b>100.00</b>
<b>2. Age</b>		
25-30	2	7.41
31-35 years	12	44.44
36-40 years	11	40.74
More than 40 years	2	7.41
<b>Total</b>	<b>27</b>	<b>100.00</b>
<b>3. Domicile</b>		
In the same province as the medical school	13	48.15
In neighboring provinces in the same region	5	18.52
Other provinces in other regions	9	33.33
<b>Total</b>	<b>27</b>	<b>100.00</b>
<b>4. Marital status</b>		
Single	15	55.56
Married	12	44.44
<b>Total</b>	<b>27</b>	<b>100.00</b>
<b>5. Specialty field</b>		
General practitioner	2	7.41
Family medicine	1	3.70
Internal medicine	8	29.63
Pediatrics	4	14.81
Obstetrics and gynecology	0	0.00

**Table 5.1** (Continued)

<b>Personal Background Information</b>	<b>Quantity (n=27)</b>	<b>Percentage</b>
Radiology	2	7.41
Ophthalmology	1	3.70
Otolaryngology	2	7.41
Orthopedics	1	3.70
Psychiatry	1	3.70
Anesthesiology	1	3.70
Surgery	3	11.11
<b>Total</b>	<b>27</b>	<b>100.00</b>
<b>6. Service life</b>		
1-3 years	7	25.93
4-6 years	10	37.03
7-9 years	7	25.93
10 years and up	3	11.11
<b>Total</b>	<b>27</b>	<b>100.00</b>

Table 5.1 indicates that most of the key informants are female (74.07%), aged between 31 and 35 years (44.44%) based on the analysis of general information of the key informants, which is the background information of 27 medical professors, who work in the new medical schools in northeastern Thailand. About 48.15% have their domiciles in the same province as the medical school they are working for. Most of them (55.56%) are single. The majority graduated from internal medicine programs (29.63%) and the most average service life ranges from four to six years (37.03%).

Other information relates to that of the key informants, who are administrators of the three new medical schools in northeastern Thailand, as detailed as follows:

**Table 5.2** Detailed Information of the Key Informants (Administrators) of the New Medical Schools in Northeastern Thailand

<b>Medical Schools</b>	<b>Position</b>	<b>Quantity</b>
Faculty of Medicine, University A	Dean	4
	Associate Dean for Administration	
	Associate Dean for Research and Social Engagement	
	Associate Dean for Education Services	
Faculty of Medicine, University B	Dean	3
	Associate Dean for Administration	
	Associate Dean for Research Associate Dean for Medical Services	
Faculty of Medicine, University C	Associate Dean for Academic and Student Affairs	2
	Associate Dean for Research	
<b>Total</b>		<b>9</b>

The last key informants include one expert, who is a representative of the Medical Council Committee and one expert, who is an administrator of the old medical schools in northeastern Thailand.

### **5.1.2 Resignation Problems of the Medical Professors from the New Medical Schools in Northeastern Thailand**

The turnover problem of medical professors is the major reason affecting the administration of medical schools. The retention of medical professors in the new medical schools is important because those who graduated with a Doctor of Medicine or from specific medicines have a duty of supervising the subjects taught to meet the standard, despite having learned and taught at the pre-clinic level. Medical professors' teaching focuses on diagnosis and treatment, e.g., heart disease systems ranging from

structure, anatomy and physiology, and drugs used to treat diseases. This integrates basic knowledge to the clinical level in Years 4 to 6.

The new medical schools in northeastern Thailand are now facing a shortage of medical professors, especially at the pre-clinical level of the new medical schools, who have continuously resigned. Since medical professors are talented people and involve specific fields, which are required by the national health system and the health labor market under a shortage of medical professors, the retention process to retain staff to work for a long time is difficult. Due to the above reasons, this researcher has presented the statistics of resignation in the new medical schools in northeastern Thailand, as follows:

**Table 5.3** Statistics of Medical Professors in the New Medical Schools in Northeastern Thailand

New Medical Schools in the Northeast	Number of Medical Professors Resigning Per the Total Medical Professors (Unit: Medical Professor)									
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Faculty of Medicine, University A	- (8)	- (14)	1 (16)	2 (16)	2 (14)	1 (16)	5 (17)	1 (17)	3 (19)	- (22)
Faculty of Medicine, University B	1 (11)	2 (14)	- (20)	- (21)	1 (25)	- (30)	4 (33)	1 (39)	2 (51)	10 (54)
Faculty of Medicine, University C	- (17)	- (22)	- (25)	7 (22)	4 (25)	4 (23)	- (24)	- (29)	1 (36)	- (36)

The turnover statistics of medical professors in the new medical schools in northeastern Thailand based on the document data of the human resource divisions of the three new medical schools in Table 5.2 reveal that medical professors from the Faculty of Medicine, University A have continuously resigned almost every year and in 2013 the turnover rate was high. In 2011, 10 medical professors from the Faculty of

Medicine, University B resigned and seven out of 22 medical professors resigned from the Faculty of Medicine, University C in 2010.

## **5.2 Factors Affecting the Retention of Talented Personnel in the New Medical Schools in Northeastern Thailand**

Concerning the factors affecting the retention of talented personnel in the new medical schools in northeastern Thailand, after studying the resignation problem of talented personnel in the new medical schools in the northeast, the causes have many contexts and factors depending on the contexts of organizations and personnel, especially a wide variety of individual factors, such as gender, age, education, knowledge, skills, ability and mentality. If organizations can analyze such problems in order to find out the root causes and factors for resignation, they will be able to retain talented personnel. Based on data collected from the key informants, namely medical professors working in the new medical schools in the northeast and administrators from the three medical schools, the major causes and factors affecting the retention of talented personnel can be summarized and categorized into four parts: external, internal, task-related and individual factors, as detailed below.

### **5.2.1 External Factors**

#### **1) State Policies**

As the state policies have promoted and supported the production of additional doctors from the network of the 12 existing medical schools and five additional new medical schools, the Medical Council of Thailand has to monitor the new medical schools to admit medical students in accordance with their readiness. However, the new medical schools have admitted more students than the quota approved by the Medical Council of Thailand. Since the hospitals are not ready for training, after graduation, these medical students will not be entitled to pass the Medical Licensing Examination of Thailand (MLET) to qualify for medical practice. As a result of the state policies to promote the production of doctors without readiness

in many aspects, particularly insufficient budgets, this affects the attraction and retention of talented personnel for a long time. One administrator from the Faculty of Medicine, University C provided the following comment:

...If the government thinks that the doctor recruitment is important, it must support the personnel budget. In the past, the budget for doctor production consisted of monies budgeted per head, a personnel development budget and an investment budget. Later, the budget was reduced and only a development budget of 300,000 baht per head was allocated. The personnel development budget was included in the budget cuts. However, this figure has been used for more than 20 years. It was sufficient in the past, but it is not enough now. Therefore, if new medical schools are required, the central budget must be subsidized, e.g., salaries budget. With salary provided, the faculty of medicine can support it ... (personal communication, January 27, 2018)

## 2) Health Labor Market

As for the ratio of medical personnel to the population in ASEAN countries, this ratio in Thailand is lower than that of the competitor country, Singapore, which has announced itself to be a medical hub. The shortage of doctors, which is a health manpower crisis, has been continuous. Not only does a shortage of doctors working in public health service centers exist, but also the problem of doctor distribution into rural areas despite the establishment of additional new medical schools, the adjustment of medical student admission, promotion of health personnel's education in shortage professions and production reform in terms of educational management and curriculum reform in accordance with people's health requirement. Since the medical profession is in high demand by health labor market, the flow rate is also high because of such high demand. This will affect educational institutes and health service venues in remote or rural areas because in case of better alternatives, doctors will move to more convenient workplaces with better career paths. This corresponds to the following comment from one administrator from the Faculty of Medicine, University A.

...Concerning labor market in Thailand, due to Thailand 4.0, some occupations are in demand by the market. Thailand still faces a shortage of doctors, which takes place both in the production and distribution process. The distribution process is a major problem because doctors don't want to work in remote areas, but only in cities. The objective of the establishment of new medical schools is to respond to the shortage of doctors. Professors are required and recruited for the establishment of new medical schools. How is the situation at the three new medical schools? The situation at University C is similar to ours, that is, there is a shortage of professors; they have the same retention problem and resignation problem... (personal communication, December 26, 2017)

### 3) Technology

National economic, social, educational and technological development leads to people's higher expectations with respect to health service systems, resulting in higher demand in services and quality. In particular, with respect to state-of-the-art medical technology, each year new technology and innovation has been applied to medical treatment, such as minimally invasive surgery and robotic surgery. Additionally, most of the medical professors continued their specialty at the old medical schools equipped with modern medical technology and science. After graduation, if they cannot apply their knowledge, or if the environment and work atmosphere do not contribute to their jobs, this will have a direct effect on the retention of medical professors.

## **5.2.2 Internal Factors**

### 1) University Policies

A significant obstacle faced by new medical schools involves policies and regulations, which are relatively different from those under the Ministry of Public Health. The new medical schools are not consistently supported because they belong to the Ministry of Education. Budget reimbursement must follow the regulations of

the Ministry of Finance. The budget for medical support may not be sufficient to meet their demands and, as a result, this affects the overall management.

## 2) Management Systems

Shortage of doctors: Teaching and learning at the faculty of medicine at the new medical schools is usually conducted at the pre-clinical level. The ratio of medical professors to students is 4:1. This ratio is not low because the proportion of professors who graduated with a degree in a field of science at the pre-clinical level is sufficient. However, the actual problem of medical schools is the shortage of professors who graduated with a doctorate degree in medicine. As medical professors, they have to teach students and treat patients at the same time. The faculty of medicine also opened its own hospital. This is the major factor that the ratio of doctors is insufficient. This is consistent with the following comment of one administrator from the Faculty of Medicine, University A:

...In my opinion, management is concerned because doctor teams at each hospital have different management potential, which is a significant factor as to whether you will be able to recruit and retain them... (personal communication, December 26, 2017)

Apart from that point is a lack of workload flexibility. Since the doctor profession is a very specific profession and its teaching relies on preference and expertise, this affects their feelings if they do not like obligatory tasks, which must be assessed in three aspects, namely teaching, research and services. Some medical professors may be happy and prefer to carry out only one aspect of their workload. If they are supported to perform tasks that they prefer, or if workloads are flexible, this may increase the retention rate, as observed in an example provided by one administrator from the Faculty of Medicine, University B.

...Nowadays, there is no flexibility. The main problem is that only one ruler is used to judge everyone, each of which comes from all walks of life. None has the same thought process. When a line is drawn by one ruler, it is difficult to

be flexible, thereby resulting in unhappiness ... (personal communication, February 8, 2018)

### 3) Organizational Image

Many new medical schools, especially those in other provinces, are not successful in being accepted in terms of unpreparedness with respect to both manpower and services.

### 5.2.3 Task-related Factors

Tasks are a significant factor that affect the retention of talented personnel, such as medical professors in the new medical schools. Task-related factors consist of workloads, job characteristics, compensation and welfare. The key workload tasks include lecturing, research and services. Workloads pertaining to lecturing involve responsibility for only the pre-clinical level, where students in Years 1 to 3 are taught. Thus, lecturing involves problem-based learning. In general, basic subjects of the students at the pre-clinic level relate to science. Most of the professors at the pre-clinical level have graduated with a doctorate degree in a wide variety of sciences, e.g., anatomy, physiology, biology, etc. Most of the subjects at the pre-clinic level are taught by professors with a Doctor of Science, while those with a Doctor of Medicine provide additional courses about body systems and medical diagnosis to medical students as a basic knowledge leading to the clinical level. Research is, however, a major duty that is necessary in order to provide knowledge to educational institutes. As doctors must concern services or diagnosis and treatment of patients, medical services are necessary, and as a result, the faculties of medicine in various universities must possess their own hospitals, which treat outpatients in order to provide medical services and treat diseases in nearby communities. Workloads relating to services for health check-ups or social services related to knowledge on health promotion and disease prevention are, therefore, a major duty of medical professors.

#### 1) Workloads

With respect to the interviews with most of the medical professors, some of them are dissatisfied with their workloads because they do not correspond to

their subjects. However, they can carry out workloads as specified by the universities, although they are not consistent with their demand because they feel that there are too many aspects to their workloads and they cannot accomplish all desired tasks. In addition, work systems and duty allocation are still a problem, as mentioned by a medical professor from the faculty of medicine, University B in the following interview excerpt:

...There is no clarity of responsible duties. Sometimes, when there are some problems and they are tired, they resign. For example, there are no policies or clear instructions at hospitals as to how each staff must perform tasks. If personnel want to do other duties, they prefer not to do this task. In other words, if personnel are dissatisfied with performing any task, they will not do it because there is no clear line command. (personal communication, February 8, 2018)

Another medical professor added the following comment concerning workloads:

...Overall, the workload is more because we do not only treat patients, but have to also conduct lectures, prepare teaching and do research. It is hard work compared to the past. We were under the Ministry of Public Health. We were happy. But it is not like that at the present. The current workload is harder than that with the Ministry of Public Health. (personal communication, February 9, 2018)

Workload factors and medical professors 'workload affect their retention and lead to the thought of resigning because it is a hard and diverse workload compared to doctors working at other hospitals because they have to teach, do research and treat patients. For example, some medical professors treat their patients at the hospital. Due to their workload concerning teaching, they have to ask other doctors to treat their patients on behalf of them. They may be called in all the time,

even during teaching, because such medical professors are attending physicians. This is especially true for the critically ill patients in ICU rooms. Medical professors cannot fully concentrate on any task because they have to properly manage their three workload responsibilities. In fact, the task pertaining to patient treatment must be performed like doctors at public hospitals, who perform only one workload task, or clinical medical professors. On the contrary, those in the new schools have different workloads, some of which they are not good at. For example, they have to be pioneers in the new schools to become administrators, establish departments and create numerous administrative systems.

## 2) Job Characteristics

Apart from pioneering jobs, e.g., creating foundations and systems for the new medical schools, workloads of medical professors in the new medical schools comprise three aspects: teaching, research and services. Some professors may be dissatisfied and eventually resign because work tasks may not suit their preference and ability. For example, some medical professors may like diagnosing patients or research only; they may not like teaching. This is consistent with the interviews with many medical professors, as one professor at the Faculty of Medicine, University A stated the following concerning this issue:

...It is believed that many doctors who have resigned have the same feeling. As doctors, we perform our tasks that we are good at. Then, we are happy (personal communication, January 4, 2018)

This is in line with the ideas of one medical professor at the faculty of medicine, University C, as stated below:

... Does it make those who still work resign? Yes, it does. But many workloads do not involve teaching, but services. What makes us to be medical professors? Most of us are academics. Actually, we want to do case research, e.g. pathology. We work on radiation. Most of our research papers seem to become what we saw. What is pathology? However, we cannot perform this

task because it has not been completed yet in all aspects. As a result, it is difficult to do our research or continue further research because we don't have all specialists... (personal communication, March 6, 2018)

The above interview reflects that the job characteristic factor has a high impact on the retention of medical professors because it is a very specific profession. Teaching is a job characteristic that requires preference and expertise. This affects the feeling of medical professors who dislike this kind of job. This is consistent with the following statement of one administrator from a new medical school at University C with respect to workloads and tasks of medical professors:

...Medical professors receive scholarships from a new medical school to further their studies. After graduation, they are supposed to provide lectures in addition to medical services. Not all doctors can teach medical students and not all doctors were born to become teachers and want to teach medical students. They have to adapt themselves and must know the principles of medical education teaching, such as designing examination questions and setting grade levels, and so on. Why does my work not focus on surgery as I like? I do not teach only a few students, but many due to the low number of professors... (personal communication, March 7, 2018)

In summary, task-related factors are the main cause of medical professors' resignation. Since this profession is different from other fields, workloads or job characteristics faced by medical professors may affect their satisfaction and arouse resignation. In addition, this profession is in shortage and a high demand. As a result, the resignation rate in the health system is high.

### 3) Environment and Work Atmosphere

The most important cause of resignation of medical professors from the three new medical schools is the unpreparedness of hospitals of the faculty of medicine. At the beginning of the foundation of the three new medical schools, the situation was similar, as the faculties of medicine did not have their own hospitals due

to the educational pattern of medicine education in the new medical schools and due to the restrictions imposed by the Medical Council of Thailand. This educational style was initiated in 1994. The cabinet agreed that the Ministry of Public Health would cooperate with the Ministry of Education in establishing the Collaborative Project to Increase Production of Rural Doctor (CPIRD), which was formed to solve the shortage of doctors in the region. There was cooperation with the faculty of medicine at various universities in producing doctors. The Ministry of Public Health set up a project management office to be responsible for the project to produce doctors for rural people in 1997. Its position is equivalent to a division under the Office of the Permanent Secretary Ministry of Public Health. Its acronym is CPIRD.

Teaching and learning at the pre-clinical level is implemented at the faculty of medicine under the university. It involves the teaching of science, anatomy, physiology, etc. The teaching and learning at the clinical level for students in Years 4-6 is implemented in collaboration with doctor production institutes under the Ministry of Public Health called the Medical Education Center. Participating hospitals under the Ministry of Public Health are used as affiliated institutes in producing doctors so as to efficiently manage the teaching and learning of medical students at various hospitals. It is regarded as an agency of that hospital.

Since none of the three new medical schools have arranged their own teaching and learning at the clinical level, medical students are sent to study at the educational institutes producing physicians under the Ministry of Public Health or Medical Education Center in direct cooperation with those new medical schools, such as central hospitals in the same province and neighboring provinces, as shown in Table 5.4.

**Table 5.4** Medical Education Centers of the New Medical Schools in Northeastern Thailand

University	Medical Education Center
Faculty of Medicine, University A	Sunpasitthiprasong Hospital and Sisaket Hospital
Faculty of Medicine, University B	Surin Hospital, Buriram Hospital and Chaiyaphum Hospital
Faculty of Medicine, University C	Kalasin Hospital and Roiet Hospital

The context of the study of new medical schools in northeastern Thailand is based on the researcher's non-participatory observation and the documentary information. The observation revealed that each hospital of the faculty of medicine in the new medical schools in the northeast has different contexts, as follows:

(1) Faculty of Medicine, University A Hospital

Budget monies were allocated to the Faculty of Medicine University, A Hospital in fiscal year 2001 in order to construct a building at the Educational and Medical Research Center at University A. It is a 9-storey building with a functional area of 19,000 m<sup>2</sup> to serve as a major hospital for clinical teaching training at University A and for producing medical and public health personnel, as required by the northeast and the region. Currently, the Faculty of Medicine, University A Hospital provides a wide variety of services at the outpatient building only, such as general medical examinations, a special medical clinic, laboratory services and radiological services.

Based on the researcher's observations, the hospital building is rather small compared to other new medical schools in the northeast. One additional 9-storey building with 112 beds is being constructed to accommodate inpatients for 2019. It will comprise surgery rooms and critical care units. The Faculty of Medicine

University, A Hospital currently provides services for outpatients only, from Monday to Friday during official hours, as well as after-office hours from 4.30 to 8.30 pm and on Saturdays-Sundays from 8.30 am to 12.30 pm. The hospital includes facilities for medical records, examination rooms, X-ray rooms, pharmacy rooms, etc. The atmosphere is relatively quiet since most of service users are university personnel, professors or students. Outpatient examination takes place in only one outpatient examination location, and it has no shops or canteens.

(2) Faculty of Medicine, University B Hospital

The Faculty of Medicine, University B Hospital is situated within B University near the second university exit. It has provided services under the name of the Operations Center since July 2, 2010 to outpatients, namely general examinations and 24-hour accident and emergency care. Afterwards, it began to provide services at Rattanavejpat Building on November 18, 2014 for inpatients and CCU, especially in the province. The Faculty of Medicine, University B Hospital has a major mission to produce graduates and to provide health services covering the lower northeastern region. In addition to providing health services, it is a learning center for graduates and medical personnel at all levels. It provides benefits pertaining to education, research and experience in clinical learning for professors, medical students, nurses, and officials in public health and other fields relating to health science. It also supports and provides medical and public health services to students, personnel and people around the university. This can lessen the treatment burden of the hospitals in Nakhon Ratchasima and other nearby provinces.

The researcher's observation indicates that the Faculty of Medicine, University B Hospital is large with a big building and specialized departments like other provincial hospitals, such as an Ear Nose Throat Department, Ophthalmology Department, Obstetrics and Gynecology Department, and Orthopedics Department. A large number of people use their services. The atmosphere is similar to that of the hospitals of the old medical schools, but the only difference is the new buildings and venues. There are also a small canteen and some coffee shops near the building to provide services to users. It implies that many people have continuously visited this hospital, which accommodates 120 beds for inpatients. A large building is being

constructed to serve patients. Moreover, it plans to provide lectures for clinical students in 2019.

### (3) Faculty of Medicine, University C Hospital

The Faculty of Medicine, University C Hospital consists of two units: The Primary Care Center, Khamriang Campus and the Primary Care Center in the urban area. The primary care center has been under the supervision of the Faculty of Medicine, University C Hospital since July 1, 2014 at the dormitory building between Chiang Yuen Dorm and Chuen Chom Dorm. Later on February 6, 2006, the second primary care center was opened at the Faculty of Medicine office at the primary care center in the urban area to serve as a training center for medical students and provide medical services to students, personnel and the general population.

The researcher's observation indicates that the Faculty of Medicine, University C Hospital is large with a big building similar to the Faculty of Medicine, University B Hospital, however, it is smaller. A large number of people use its services, but not equal to that of the Faculty of Medicine, University B Hospital. It provides services at different departments; however, examinations are not conducted in various departments like that in large hospitals. All examinations are made at the outpatient room. It has 50 beds for inpatients. There is also a small canteen on the first floor. It implies that many people have continuously visited this hospital.

It is obvious that although the three new medical schools were opened in similar periods and in the same region, their contexts are different, especially with respect to medical services provided, depending on the management policies and guidelines of each university.

**Table 5.5** Summary of Context of the Three Faculties of Medicine University Hospitals of the New Medical Schools in the Northeast

<b>University</b>	<b>Clinical Teaching</b>	<b>Outpatients</b>	<b>Examinations According to Each Department</b>	<b>Inpatients</b>	<b>Bed Size</b>
Faculty of Medicine, University A Hospital	None	Yes	None	Yes, in the future (2019)	0
Faculty of Medicine, University B Hospital	Yes, in the future (2019)	Yes	Yes	Yes	120
Faculty of Medicine, University C Hospital	None	Yes	None	Yes	50

The interviews with medical professors from the new medical schools in the northeast indicates that the environmental and work atmosphere are one factor affecting the retention of talented personnel. In particular, hospitals are the most important factor because medicine is a specialized field. Thus, the major task for most of doctors is to provide medical services or patient examinations. Although they are in the role of medical professors for various faculties of medicine at university hospitals, they wish to have procedural practices in their specialty that they are good at. The significant problem of the new medical schools involves the unpreparedness of hospitals, which means they are lacking tools and facilities for their medical profession, especially specialty doctors.

During the period without hospitals in this region, the new medical schools were being shaped. They were, therefore, new and unprepared in various aspects. As a result, medical professors could not completely provide services. In later periods, when the construction of hospitals was completed, there were only nursing rooms to take care of patients. At the beginning, services were not sufficient and specialty doctors examined patients in an uncomplicated manner. This was not consistent with their specialty. For example, medical professors who are anesthesiologists did not have a surgery room where they can administer anesthesia to patients. They would eventually resign because they have been trained to use high-skill levels. However, the treatment that does not apply their expertise or skills may lead to a loss of knowledge as time passes. In contrast, despite having fully equipped surgery rooms but without specialty doctors in surgery, anesthesiologists cannot perform their duties. As a result, medical professors will be dissatisfied and will resign.

The above-mentioned problems correspond with the key informants' comments, as demonstrated through an interview with a medical professor from the Faculty of Medicine University, A Hospital, as follows:

...Whether hospitals are opened is important. If they have not opened yet, doctors will resign from their clinic because they have little to do. This is more important than teaching. I have already told you that they cannot continue working in a clinic because they have little to do. After graduation, it will be boring, if they just treat a cold or diarrhea, as these diseases are not severe. However, general doctors have to cure them. After completing their specialty, they prefer to do more difficult tasks... (personal communication, November 30, 2017)

It is also consistent with the following comment by another medical professor at the Faculty of Medicine, University A Hospital:

...Medical schools will be only the outpatient department if hospitals have not been opened yet. Some doctors may dislike and feel bored because they treat only colds and diarrhea, as well as treat some wounds. Some feel that they should be diagnosing difficult cases. Otherwise they will forget what they learned or the procedure practices. It is boring to treat only colds. For example, if their specialty is anesthesia, but there are no cases concerning this, what will they do? They cannot accept this ... (personal communication, November 30, 2017)

With respect to the comments by medical professors, it is obvious that the medical profession focuses on skills and specialties because they were trained to emphasize practice. Due to the new medical schools, policy restrictions and unpreparedness during the pioneering and foundation period of the faculty of medicine, a large number of doctors resigned. It is remarkable that most of the informants who provided this information are medical professors from A and C universities.

The above problems are consistent with the administrators' concept of the new medical schools highlighting the same issue, that is, the unpreparedness of the hospitals. As a result, medical professors cannot practice their skills and abilities in their fields. Since universities with new medical schools have many vacant positions, newly graduated doctors wish to receive scholarships for further studies, so that the new medical schools can serve as the agency that dispatches them to study further. It is easier to continue their specialty if they receive scholarships from new medical schools than other agencies. After graduation, some medical professors found that the new medical schools were not ready for surgical operations. For example, if their specialty is surgery or plastic surgery or orthopedics, but the hospital does not have a surgery room, emergency room and wards, it will be difficult to retain those talented medical professors because the workplaces do not match to their talent.

In terms of work atmosphere, since they are new medical schools, tools may be incomplete. In addition, the operations and facilities may not be similar to those in the old medical schools or large hospitals with complete systems. Due to the

fact that they are new medical schools, they often face similar problems, that is, a lack of equipment and facilities, including consulting systems. In case of problems, expert doctors will be consulted because there are no departments and sub-departments. Therefore, there may be some problems concerning the work environment, which affects the retention. The interview with one administrator from the new medical schools in the northeast revealed the following:

...We don't have large-scale hospitals to cope with them. The cases are only OPD. They don't teach what they learned. It is only teaching at the pre-clinical level. As their specialty is surgery, if they work at a hospital or the medical center, they will teach surgery. While they are working there, they have to teach correlation or pre-clinical subjects....., the content is not profound and there are not many cases... (interview with one administrator of the Faculty of Medicine University, A Hospital on January 8, 2018)

This corresponds to the opinion of another administrator from the Faculty of Medicine, University C Hospital, who commented in the same direction, as follows:

“...As they don't know this hospital well, they intend to work in a manner as in other medical schools. But they cannot work in accordance with their potential. As we don't have any ICU and their specialty is brain surgery, we don't have ICUs or blood banks. They cannot continue working because they do not work in line with their talent ... (personal communication, January 27, 2018)

#### 4) Compensation

Compensation design is very important to organizations. It is well-known that medicine is a profession that has a high compensation in the labor market and that doctors are in high demand. Due to the administrative environment pressured by political, economic, social and technological factors, individual behaviors change.

If organizations cannot attract these personnel, they lose that opportunity. Therefore, compensation design is the most important issue that attracts talented personnel or medical professors to stay at an organization as long as possible.

The interviews with medical professors from the new medical schools in the northeast about compensation revealed that their satisfaction level is low, especially medical professors from the Faculty of Medicine, University A and C hospitals. However, it is acceptable among many medical professors because there is not much workload due to the growing period of hospitals. Services are also not busy compared to other hospitals, as stated by a medical professor from the Faculty of Medicine, University C Hospital.

...I must accept that the compensation here is low because compared to others, not medical schools, their compensation is certainly higher. Personally, is it acceptable? Yes, because the services here are not so busy like those at other hospitals... (personal communication, March 6, 2018)

On the contrary, medical professors from the Faculty of Medicine, University B mentioned the following about compensation:

...For me, it is not a problem. I must tell you that I came from the government system. Therefore, if it is higher than that, I am ok. However, for those working at private hospitals, they will not be satisfied...(personal communication, February 10, 2018)

It is obvious that the compensation of medical professors is a necessary factor, but not a major factor because many of them have been informed before working at the Ministry of Education about the compensation situation. However, the compensation of most medical schools is higher than that of the Ministry of Education, but not equivalent to that of private hospitals. It depends on the context of medical professors how much compensation they can accept compared to their workloads.

### 5) Welfare

It is known that the welfare of medical professors under the Ministry of Education differs from that of the Ministry of Public Health or other ministries because all universities under the Ministry of Education have prepared to be autonomous. Therefore, personnel under the Ministry of Education have a status of being public/state officers. In other words, the welfare is definitely different from that of the government system, e.g., not all healthcare costs in the social security system can be reimbursed compared to the government system, although welfare has been improved by providing additional health insurance to medical professors from some new medical schools. This coverage may cover their spouses, which is similar to the welfare of the Faculty of Medicine, University B. However, it does not cover their parents like that in the government system. In addition, other welfare, such as lodging or provision of money for paying house rent may be insufficient for their demand. This is, therefore, another factor that leads to their resignation because they are different from government officers under the Ministry of Public Health. This is in line with the interview with one medical professor from the Faculty of Medicine, University A Hospital concerning welfare, who stated the following

...Welfare is low, as we receive only social security. We have to help ourselves in the future as we have to buy annuity insurance, but not yet. Sometimes I discussed this with one of my friends who resigned. Formerly, he worked at a provincial hospital. He has health and family problems. In addition, he worked hard, so he resigned to work here. However, he does not receive such welfare, so he has to buy some annuity insurance ... (personal communication, December 15, 2017)

One medical professor from the Faculty of Medicine, University C stated in the same direction, as presented below:

...As for welfare, some have a family burden. Their family members aren't government officers. If their parents are sick, they require more healthcare

welfare. In fact, they may expect that working at medical schools can help them, but this may not help much ... (personal communication, March 6, 2018)

The above-mentioned factors about welfare may not have an overall impact on medical professors because they had been informed at the beginning that the welfare is different from that of doctors working at other ministries, e.g., Ministry of Public Health. However, there may be other unexpected factors, such as parents' or family members' sickness. This may be a turning point to resign and return to the government system.

Task-related factors affecting the retention of talented personnel in the new medical schools in the northeast include workloads, job characteristics, work environment and work atmosphere, compensation, welfare, colleagues, career path and work-life balance.

#### **5.2.4 Individual Factors**

Individual factors associated with medical professors can be categorized into major issues and these can be ranked in order as to which have the highest effect on the retention of talented personnel. The factors with the highest effect are domicile and family factors. The interviews with medical professors from the new medical schools, who still work, indicates that most of them have their domicile in the same province (48.15%) and nearby provinces where they are working (18.52%).

##### **1) Domicile**

Based on the information from the interviews about the resignation problem of medical professors, who were working, the key factor that leads to their resignation is their domicile, as expressed in the interview by one medical professor from the Faculty of Medicine, University B, as follows:

...To consider those who resigned is because of their domicile. It can be simply said that to select scholarship recipients, an interview must be carried out. One factor to be considered is their grade. We have to accept that

Bangkok students have higher grades than other provinces. Most of those selected are Bangkok residents. As a result, they are likely to resign to move to Bangkok. As most of them are an only child or the breadwinner, they have to take care of family members. Thus, they have to return to their domicile. This tends to be a major cause... (personal communication, February 10, 2018)

This is consistent with the data of one administrator from the Faculty of Medicine, University A, as stated below:

...Domicile may have an effect because few of the workers are local residents who decide to work here. However, they have not completed the board. If their roles are clear and have bonding with us, domicile may have an effect... (personal communication, June 1, 2017)

With respect to all of the mentioned statements, domicile is more important than other factors because the new medical schools are situated in rural provinces. This is an important factor for a decision made by those who will work here. Public utilities may not be complete as those in larger provinces or the capital (Bangkok). Most of those who can stay in the provinces have their domicile in that neighborhood. They may appreciate or accept the context of a rural society. Most of medical professors graduated from larger, older medical schools in cities. Most of them may not have their domicile in local areas. They may come from Bangkok or other provinces after being informed of scholarships being offered by the new medical schools to recruit personnel to be sufficient to proceed in accordance with the curriculum and the required ratio of professors. In addition, the new medical schools have high vacancies and many medical professors are required to fill the positions. Junior physicians are, therefore, interested in applying for a scholarship to continue with their specialty. New medical schools often recruit doctors or medical students with a good educational background, such as honors students. Most of them may not be local residents. This is the major reason medical professors have come to the new schools—they have received scholarships and have completed their studies. Some of

them have worked for a while and moved back to their domicile. Some may not have started their work, they repay their scholarship compensation and then work in their domicile. Thus, the first cause is that these medical professors have their domicile in other provinces. This is a main reason affecting the retention of these medical professors.

## 2) Family

Apart from individual factors concerning domicile, family is also a significant factor because most doctors are older than 30 years in age. This is the age of settlement. The collection of data from the key informants reveals that 44.4% of the medical professors are married. It is obvious that family is a factor that also affects the retention of talented personnel, as mentioned by one medical professor from the Faculty of Medicine, University A.

...Family is important. Many doctors resigned because they are married. Their wives did not stay here, but chose to live in other provinces. So, they have not worked here for a long time. They are very good but had to resign eventually to stay with their wives who did not move here. As for community hospitals, they had other problems concerning their children, as they want their children to study in famous schools... (personal communication, December 15, 2017)

One medical professor from the Faculty of Medicine, University C also stated this thought in the same manner, as follows:

...They moved to accompany their family members. For example, they married someone from another province, so they had to go. This is a factor related to family that cannot be prevented. We must accept it. I think that those who have resigned did not have any problem concerning livelihood here, as far as I noticed... (personal communication, March 6, 2018)

Another medical professor from the Faculty of Medicine, University C, who is deciding whether to resign or not, provided information to add to the same topic, as follows:

...The reason that some are thinking of resigning is due to pregnancy and relocation to accompany their family members. I think that this factor is a major concern, not the organization, as I don't think that working at other hospitals will not face any problem... (personal communication, March 6, 2018)

The administrators from the faculty of medicine of the three universities have the same opinions concerning family factors of medical professors, as follows:

...Some newly graduated but aging doctors may be married. More importantly, they have to move to live with their family members. This is another reason, as I had an opportunity to interview or talk with them upon their resignation. Those who resigned did so in order to accompany their family members. This is necessary, as family must live together, not separated. Sometimes, family members do not include only husbands and wives, but also parents or grandparents. One ophthalmologist had to take care of his parents, who stay in a province in the northeast. He does not want to move, but it is necessary, and his wife has to follow him ... (interviewed with one administrator from the Faculty of Medicine, University B, on February 9, 2018)

This is in accordance with the interview with one administrator from the Faculty of Medicine, University C, concerning family issues, as stated in following interview excerpt:

...Some resigned because of obligations. For example, their girlfriends or family members stay in Chiang Mai, so they have to move to Chiang Mai. In

another case, the hometown is in Khon Kaen. While they were studying, they had children who were clingy. Another example is that they come from Bangkok, so when they get married, they have to stay in Bangkok. Similar to this case, there are about 10 doctors... (personal communication, January 27, 2018)

It is evident that family is a significant factor that affects the retention of talented personnel in the new medical schools in the northeast. This factor is difficult to prevent because the individual issue is important and flexible due to many reasons, which vary according to the context of each individual.

### 3) Other Individual Factors

In addition to the above-mentioned individual factors, there may be other individual factors which result in medical professors' resignation, e.g., health problems.

Health is an uncontrollable factor. According to the interview with one medical professor from the Faculty of Medicine, University A, who is deciding whether to resign, she is facing a health problem, which plays a key role in her decision making, as expressed in the interview excerpt below:

...I am sick and work hard. Furthermore, my eyes are poor. University A is far from the city, so it is difficult to drive due to my poor eyes. While I was working at the center hospital, I was infected with tuberculosis two times and had one abortion. So, I decided to resign ... (personal communication, December 15, 2017)

In addition, administrators also commented on other factors affecting the retention of medical professors, such as social and economic factors. One administrator from the Faculty of Medicine, University A, gave an interview on the following issue:

... Other social factors include schools, city economy, and quality of life. For example, some prefer urban life to rural life. Some like civilization. Schools are a very important factor. One reason more doctors live in this province rather than nearby provinces involves the schools or universities of their children... (personal communication, December 26, 2017)

One administrator from the Faculty of Medicine, University C also had an opinion in the same direction, as follows:

... If they live here, are married and have children, so they need to decide at what school their children will learn. Their children may learn at demonstration schools. After that, will they continue their study at a university here? Is it possible that they study at Chulalongkorn University or Rama Hospital, or abroad? If their wives are doctors, do they have the same idea? If not, if their wives work in Bangkok, how can they live alone here? If they are not local residents, it will be difficult for them to stay here. More importantly, they know nobody and other relatives live in other places... (personal communication, March 7, 2018)

In brief, individual factors in terms of domicile, family and others affect the retention of medical professors unavoidably. These factors cannot be controlled and managed by the administrators of the medical schools, since they are individual factors. Administrators can only adjust human resource management systems to provide a balance between practitioners and organizations in order to bring about maximum benefits to both parties.

With respect to the study of factors affecting the retention of medical professors in the new medical schools in the northeast, this researcher summarized factors affecting the retention of talented personnel based on the resignation issues and categorized them into two factors, as detailed below.

**Table 5.6** Summary of Resignation Issues of Talented Personnel in the New Medical Schools in the Northeast

<b>Factors for the Resignation of Talented Personnel in the New Medical Schools in the Northeast</b>	
<b>Individual Factors</b>	<b>Task-related Factors</b>
1. Domicile	1. Environment and work atmosphere
2. Family	2. Job
3. Personal reasons	3. Compensation
	4. Welfare

As shown in Table 5.6, it is obvious that there are two causes for the resignation of medical professors from the new medical schools in the northeast – individual factors, such as domicile, family and other personal reasons, e.g., health problems, and task-related factors, such as environment and atmosphere. Due to unprepared hospitals, medical professors with a specialty cannot perform procedure practices. Task-related factors include workloads and job characteristics that they are not good at. Other relevant factors involve compensation and welfare.

With respect to all of the mentioned statements, this researcher summarized the overall factors affecting the retention of talented personnel in the new medical schools in the northeast, ranked from the highest to the lowest effects, respectively, as shown in Table 5.7.

**Table 5.7** Summary of Factors Affecting the Retention of Talented Personnel in the New Medical Schools in the Northeast, Ranked from the Highest to the Lowest Effects

<b>Rank</b>	<b>Factors Affecting the Retention of Talented Personnel in the New Medical Schools in the Northeast</b>
1	Environment and work atmosphere
2	Job characteristics
3	Workload
4	Family
5	Domicile
6	Compensation
7	Welfare

After the factors affecting the retention of talented personnel in the new medical schools in the northeast had been ranked, environment and work atmosphere (in case of the unpreparedness of hospitals under the new medical schools) is the first priority factor affecting the retention or resignation, followed by job characteristics, workloads, family, domicile, compensation and welfare, respectively.

Such factors reflect that compensation and welfare play a lesser role than work factors. Money is not always a final answer for medical doctors. To perform tasks that they prefer or are good at is the real and final answer to their retention. However, there may be other factors leading to any change, e.g., family factors.

### **5.3 Methods for the Retention of Talented Personnel in the New Medical Schools in the Northeast**

#### **5.3.1 Retention of Medical Professors**

After the analysis of the causes of personnel's resignation, the process of personnel attraction is designed to retain them to work as long as possible.

Additionally, it ensures that such personnel that are the heart of organizations will continue working and tend to resign less. This process is known as personnel retention. After investing in the personnel recruitment process and personnel development, in order to achieve cost-effectiveness, organizations have to retain talented personnel and create personnel and organizational engagement by providing incentives, because motivation is an internal motion assessed by behaviors and individual actions. If they have motivation, they will have attention and devotion, as well as push such tasks to successfully achieve the set target.

As for the retention of talented personnel in the new medical schools in the northeast, this researcher defined “talented personnel” as medical professors. To discover the methods for the retention of talented personnel, this researcher questioned the opinions of the key informants, namely medical professors who work in the new medical schools in the northeast and school administrators. Concerning medical professors, the questions involve factors affecting their retention because personnel retention is a balance between givers and takers. ‘Givers’ refers to the administrators who manage the medical schools to be developed and respond to personnel demands, while ‘takers’ refers to the medical professors, who know well what they want and in which direction they prefer. When both relations are balanced, or the retention and maintenance are balanced, this will enable the personnel retention to be effective.

In the first presented part of the study results, it looked at what factors retain the medical professors to continue working at the new medical schools. This researcher interviewed medical professors about the major factors, namely job satisfaction, organizational engagement and other factors which help to retain them. The data from the interviews with medical professors working in the new medical schools in the northeast revealed that the factors include the following:

- 1) Job Satisfaction

Job satisfaction means personnel’s feelings or attitudes towards their jobs. If they have positive feelings towards their jobs, they will have job satisfaction, as well as devote physical, mental and intellectual efforts into their work. In contrast, if they have negative feelings or attitudes towards their work, they will not be

satisfied and be uneager. As a result, they will perform their work just in a routine manner. In addition, job satisfaction includes the balance level of personnel's expectations and the reciprocation. The interview with the key informants or medical professors from the three new medical schools indicated that most of the medical doctors are relatively satisfied with their job, in particular, the medical professors from the Faculty of Medicine, University A and C because medical professors from both of these universities are satisfied with their workloads: teaching, research and services. As for services, since the hospital, especially that of the Faculty of Medicine, University A, has not been ready to admit inpatients. Thus, the services provided by medical professors consist of suitable workloads, which are balanced to the demand of medical professors. Here is an example of the interview of one medical professor from the Faculty of Medicine, University A.

...I am very happy. When I worked for the Ministry of Public Health, I could leave the hospital for only 2-3 days a month. Now, I return to Bangkok every weekend. Working there at the Ministry of Public Health, I could not go home every week. However, the salary there was higher, but I had to work harder ... (personal communication, November 30, 2017)

This is consistent with the comment from one administrator from the Faculty of Medicine, University B concerning the job satisfaction pertaining to workloads:

...In comparison with the new graduates, the only job at the time I graduated involved examination. I was much more frustrated. As a medical professor, I have a wide variety of workloads, apart from examination; I am not bored and can continue working there... (personal communication, February 10, 2018)

In addition, this researcher interviewed medical professors about separate issues concerning various factors pertaining to job context in order to reflect the medical professors' demands in detail, so that they can continue working happily.

This can help in the review of data to be more accurate. Relevant topics include career path, compensation and welfare, job characteristics, workloads, performance appraisal and work environment.

#### (1) Career Path

Most of the medical professors from the new medical schools have the same opinion that they are satisfied with their career path because each of the universities promotes them to do research by granting them a fund and a budget for additional training and seminars. Additionally, their career path is promoted by providing them academic positions.

#### (2) Compensation and Welfare

Concerning compensation and welfare, based on the interviews with the medical professors from the three universities, the medical professors from the Faculty of Medicine, University B are more satisfied with compensation than those at other two universities because it is under state supervision, so the management of compensation is more flexible than those at universities A and C. The medical professors from universities A and C expressed their ideas that their compensation is still low, but they can accept it as long as their workload is suitable and balanced in accordance with their compensation.

As for the welfare of the medical professors from the new medical schools at each of the universities, they have similar opinions that their welfare is not satisfactory compared to those under other ministries. Since the welfare is not the same as that in the government system, they have low satisfaction; however, the welfare is still acceptable.

#### (3) Job Characteristics

Most medical professors are satisfied with their jobs because the main objective of being doctors, apart from scholarship for further study, is that many of them appreciate teaching despite it being at the pre-clinical level. They can also conduct research and provide medical services or patient treatment. Some medical professors may not be satisfied with all of the missions specified by the universities: teaching, research and medical services. Some prefer only research or teaching. This can make them feel bored, dissatisfied and eventually resign.

#### (4) Workloads

The three major workloads of medical professors, namely teaching, research and services, are also factors that affect the ability to retain them at the new medical schools. According to the interviews with the medical professors from universities A and C, they are more satisfied with their workloads more than those at University B due to the size and preparedness of the Faculty of Medicine at Hospital A, which has not yet admitted inpatients. As for University C, although inpatients are admitted, there are only less than 50 beds. As a result, their workloads are not equal to those at University B, which has a large hospital and more beds. The interviews with medical professors from universities A and C have the same comment that they can accept their workloads now, but in the future, if the hospitals are enlarged and have more workloads, this can affect their decision making about resignation. Therefore, workloads are also a factor affecting job satisfaction and their retention.

#### (5) Performance Appraisal

Since medical professors have different missions from those of other faculties, the same performance appraisal is used throughout the university. Medical professors are assessed in the same format. This has made them feel dissatisfied because their workloads and job characteristics differ from those of professors at other faculties. This has led to an effort to adjust the performance appraisal form of the three medical schools so that it is flexible in accordance with medical professors' workloads. However, there are still limitations and obstacles concerning the regulations of each university. The overall performance appraisal does not have much effect on the retention of medical professors.

#### (6) Work Environment

The overall satisfaction of the medical professors from the three universities with respect to work environment is relatively high because the new medical schools have been opened for 12 years. Additionally, the hospitals and their systems have been developed for some time. This is different from the initial period, during which the new medical schools were not ready in many aspects.

With respect to the above-mentioned statements, this researcher had an additional in-depth interview with the medical professors from the new medical schools in the northeast and found that the most factors affecting retention are:

1) Domicile: As medical schools are in rural provinces, it is difficult to attract medical professors from other domiciles. Due to this inconvenience, which is different from the large old medical schools in Bangkok and major cities, such as Chiang Mai, Khon Kaen and Songkhla, medical professors who can work for a long time are local residents. However, environmental factors must contribute to their satisfaction, as expressed by one medical professor from the Faculty of Medicine, University C.

...My house and my family are here. The workload is still acceptable. Nothing makes me feel bad... (personal communication, March 31, 2018)

2) Pioneering Participation: Pioneering participation in the establishment of, along with the growth of, the new medical schools had made many medical professors have a higher engagement to the medical schools. One medical professor from the Faculty of Medicine, University B gave a reason for continuing to work at the organization, as follows:

...This may be because of participating in the operation. For example, being assigned with a task to make our faculty grow is called participation. Engagement may be because of participation. Being an administrator is part of that because if we don't want to develop our faculty, we will not stay. Being promoted as an administrator is part of that... (personal communication, February 8, 2018)

Management, system creation, and medical student production are compared to a mental commitment that leads to medical professors' engagement to continue working.

3) Job Characteristics: As mentioned above, job characteristics are a key factor leading to medical professors' resignation because of the three major workloads, namely teaching, research and medical services. Numerous medical professors do not like teaching or research, but only like providing medical services. Some of them prefer research, as expressed in the following interview with one professor from the Faculty of Medicine, University B concerning her job characteristics.

...I like teaching. I always treat patients, but wish to participate in the progress of our students. I like when they have applied what we taught to be used at a further step. Our success is the students' success. I love this point. If asked, am I tired, I will say yes, but if everybody helps each other, it will be fine... (personal communication, February 9, 2018)

Thus, job characteristics are a significant variable that can affect the retention or resignation of medical professors.

4) Scholarship Repayment: Most of the medical professors (80%) in the new medical schools in the northeast received a scholarship from their agency to continue their specialty. It is well-known that it is likely that scholarships from their own agency will be offered to them, rather than other agencies, as a result of the state policy that promotes the education of medical schools. Therefore, some newly graduated doctors are interested in working at the new medical schools because they want to receive scholarships. One medical professor from the Faculty of Medicine, University C gave an interview as follows:

...Actually, there are some problems. For example, we request a scholarship to continue our study. Receiving a scholarship from medical schools is easier than others or some fields. For my specialty (plastic surgery), I don't have any problem. Dermatologists face a problem when they request a scholarship to continue their study ... (personal communication, March 6, 2018)

It can be noted that scholarships are an attracting factor of the medical schools because they can attract talented personnel to work at organizations. However, after that, it becomes the duty of organizations or administrators to manage or retain those recipients to work as long as possible. This issue is an important starting point. If it can be solved, the retention rate of medical professors will be higher.

5) Colleagues: Apart from the above factors, which affect the medical professors' retention, colleagues can lead to organizational engagement and happiness. One medical professor from the Faculty of Medicine, University B commented as follows:

...For me, I have a deeper connection with colleagues than my organization. The most important thing is people. If they don't have their domicile here, they will stay at the dormitory. In case of having no or few colleagues, it is more likely that they will move. Having some friends may make them decide to stay. To work in rural provinces or to work alone, there are few friends. After work, we don't know what to do and may be lonely. Then, the chance of moving is more possible... (personal communication, February 13, 2018)

In addition to the above-mentioned factors, other factors which help to retain medical professors from the new medical schools in the northeast include the administrators' visions and preference to rural areas.

**Table 5.8** Rank of Factors for the Medical Doctors' Retention in the New Medical Schools in the Northeast

<b>Rank</b>	<b>Factors for the Medical Doctors' Retention</b>
1	Domicile
2	Pioneering participation
3	Job characteristics
4	Scholarship compensation
5	Colleagues

Table 5.8 shows that the factors affecting the retention of medical professors from the new medical schools in the northeast are ranked from domicile, pioneer, job characteristics, scholarship repayment and colleagues, respectively.

## 2) Engagement

Organizational engagement is a relationship between people and their organizations. People are ready to devote themselves to their organizations, as they feel that they have a connection and are part of the organization. They have a feeling that they add value to their organizations. Similarly, organizations have a value to them, so they make an effort to achieve their goals and enable their organizations to be successful. This engagement is compared to a chain or a spiritual anchor to retain medical professors.

According to the researcher's interviews concerning engagement with medical professors working at the three new medical schools, the overall results indicate that the professors from the three schools have engagement with the faculty of medicine. However, the factors leading to engagement are different. For example, they have engagement because they are involved in the pioneering of the construction of the faculty and its systems. They are also involved in the growth of the new medical schools, as expressed in the following interview with one medical professor from the Faculty of Medicine, University A.

...I have a deep connection or loyalty or engagement. I feel that if the system is not good, we have to get involvement. Therefore, if the existing system is good, we will be a part of it. If it is not good, we have to be responsible for it. It is my own feeling. I won't stay at an organization that does nothing and lets it go. It is not like that if it is good, it is because others do. Like here, suppose if I was asked how the growth should be. How should be the diagnosis be undertaken? All are involved. So, I enjoy working here... (personal communication, December 18, 2017)

This corresponds to the expression of one medical professor from the Faculty of Medicine, University B. Taking part in the pioneering, construction and thought process for the growth of new medical schools from the beginning, when no hospitals nor the faculty of medicine were established, to the construction and expansion of hospitals, resulted in the engagement of many medical professors in the new medical schools. This can be observed in the following interview excerpt.

...I feel engaged. My domicile is not here but I have moved here for a long time, since the time there was no hospital but only a health service center... (personal communication, February 9, 2018)

Furthermore, this is consistent with the interview of one medical professor from the Faculty of Medicine, University C, as follows:

...In fact, it is an engagement because we have lived here since we were interns. After completing our internships, we were general practitioners. We feel engaged because we have seen it since there was no hospital, but only a small medical center. The hospital was established three years ago. I have worked here before this building was even constructed... (personal communication, March 6, 2018)

Besides engagement as a result of pioneering participation, another factor involves a connection to the medical schools because of their own domicile.

...I have engagement because, firstly, I chose to work here due to my domicile. Secondly, there is a connection because it is my home and I feel that I completed my studies here at the secondary school. Yes, I have engagement because I have worked here for a long time... as expressed in the interview with a medical professor from the Faculty of Medicine, University B on February 8, 2018)

Moreover, one medical professor from the Faculty of Medicine, University C added to the concept of engagement as being comparable to development of his hometown, as follows:

...Engagement because I am a local resident. Looking into the future, if this place is developed, it will be excellent for our province. People working here come from this province. Therefore, there are no problems... (personal communication, March 6, 2018)

Engagement is also caused by instructing, training and taking care of medical students. As medical professors or medical teachers, we not only have the role of teachers, but we also teach them about medical ethics. The medical program is different from other fields, as the proportion of medical professors to students is lower than that of other fields. As a result, teachers and students are close, like a brotherhood. This leads to a connection and pride of observing the students' progress and success, as stated in the following interview with one medical professor from the Faculty of Medicine, University C.

...When the students are successful, it is a kind of engagement. If we hear some good news about junior students, e.g., they do good deeds or they are praised by some seniors, we will feel happy. We feel that we

are part of contributing doctors in that zone. Then, villagers will receive services from good doctors. ... (personal communication, March 7, 2018)

It may be summarized that engagement is a factor that can adhere medical professors to the new medical schools in the northeast despite having different causes of such engagement. However, such a feeling encourages them to be positively engaged to their organizations. If organizations can encourage medical professors to have organizational engagement, the retention of medical professors may not be difficult anymore. This researcher has identified the factors that lead to organizational engagement of medical professors from three different universities. These factors are shown in Table 5.9 below.

**Table 5.9** Factors for Organizational Commitment of Medical Professors in the New Medical Schools

No.	Faculty of Medicine, University A	Faculty of Medicine, University B	Faculty of Medicine, University C
1	Pioneering participation	Pioneering participation	Pioneering participation
2	Domicile	Domicile	Domicile
3	Students	Students	Students
4		Colleagues	Colleagues

From Table 5.9, it can be seen that the factors that lead to organizational commitment have been summarized and ranked: being pioneer in the new medical schools, engagement due to working in their domiciles, students and colleagues, respectively.

### 5.3.2 Medical Professor Retention

The retention of talented personnel in the new medical schools in the northeast requires not only the issues, causes and demands of medical professors, who both resigned and continue working, but also administrators, who are the most important key in creating methods to retain their personnel. The administrators are those who understand the organizational management structure and initiate and formulate policies to drive their organizations and manage their personnel. The in-depth interviews with the administrators from the three medical schools concerning the retention of talented personnel reveal the following information:

#### 5.3.2.1 Faculty of Medicine, University A

According to the interviews with four administrators from the Faculty of Medicine, University A, the retention of talented personnel has been summarized by this researcher as follows:

##### 1) Educational Reform of Health Personnel

The administrators of the Faculty of Medicine, University A viewed that the retention of talented personnel, e.g., medical professors, is as an overall systematic picture. They commented that the medical educational system must change the attitude of holistic health that does not focus only on treatment, but also on health prevention, rehabilitation and promotion because by doing so people's wellness is emphasized rather than treatment. The educational system of the faculty of medicine must be in line with the medical service venues because after studying for six years, doctors will understand which sickness can solve wellness problems, which are different in each area of Thailand. Education is promoted to make people take care of their health before going to see the doctor. As a result, the number of patients can be reduced. For example, the northeastern region is facing environmental issues such as flooding and droughts over different periods of time, the relocation of population, new diseases, etc. All of these require learning in accordance with service centers, such as center hospitals, provincial hospitals or community hospitals. Therefore, teaching and learning in the medical schools must be more distributed to these areas. In addition, the health personnel team must be considered. The educational reform of personnel in the 21<sup>st</sup> century must be taken into consideration in order to keep pace

with various changes, including changes in teaching and learning systems. In the past, health science was stressed. Now, people and social dimensions should be more focused on because holistic health adheres to the human and social principle.

### 2) Adjustment of Medical Professors' Attitudes

After educational reform, the attitudes and concepts of medical professors must be adjusted because of the following comment of one administrator:

...In general, to make people live together, the same attitudes and the paradigm pertaining to health systems must be adjusted first ... (personal communication, May 18, 2017)

The paradigm of professors at the faculty of medicine has been adjusted. The paradigm of an understanding among administrators and universities has been adjusted via visions and strategies. This also includes the paradigm and understanding of work guidelines in collaboration with service providers because the pre-clinical class for the 1<sup>st</sup>-3<sup>rd</sup> students will be provided, while those of the 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> year students will work at center hospitals. Therefore, what should we do to provide proper compensation to doctors who treat local patients, so that they are satisfied with their status? Thus, it is necessary to start from the medical schools, not after graduation. After that, educational reform at the pre-clinical and clinical levels must be carried out in line with the strategies and visions.

### 3) Hospital Development

Although the new medical schools in the northeast have their own hospitals, due to limitations of service quality, budget and others, it is difficult to develop hospitals of the faculty of medicine to be equivalent to those at the old medical schools or provincial hospitals. The hospitals of the faculty of medicine in the new medical schools are still a major variable in the first priority that affects the retention of medical professors. Thus, to retain medical professors, an administrator of the Faculty of Medicine, University A had the following comment:

...Our hospitals consist of inpatient buildings or wards, which are the turning point. Wards refer to surgery rooms, recovery rooms and observation rooms. In the wards, there are ICUs for professors of the internal medicine or ICUs for patients after surgery, delivery rooms and facilities, as well as doctors to provide services to patients. At a particular time in the future, we could retain doctors, but at this time we must admit that the conditions are not enough to retain them ... (personal communication, June 1, 2018)

Therefore, if hospitals are developed to comply with the requirements and skills of the graduated medical professors, the medical professors can be retained at organizations for a longer time.

#### 4) Compensation

Compensation is a basic factor that is important to people's work lives. Although doctors are regarded as a profession with high compensation in the country, if compared to skills, ability and risks, compensation may not be the final answer to attract doctors to continue working. As for medical professors, due to the educational system, it is necessary that universities must be autonomous. The medical professors' compensation, therefore, depends on the regulations of that university. In some cases, the compensation is insufficient for their livelihood. As a result, they resign to work in the public sector or private sector with higher compensation. Compensation must be different. As a result of regulations on welfare, the university administrators may not understand their difference and try to push for the application of the same regulations with other faculties. This partly leads to the medical professors' resignation. Regarding this issue, one administrator from the Faculty of Medicine, University A gave the following opinion:

...As the Faculty of Medicine, University A has a university status, the compensation for the doctors in the same area at the Ministry of Public Health is definitely higher than that of universities. Therefore, the attraction to work at universities is low. The problem we are facing deals with many doctors who received our scholarship to continue their specialty and teach medical students

at the pre-clinical level. After working for a while, they realize that their compensation is not high ... (personal communication, January 8, 2018)

This is consistent with the comment of another administrator of the faculty of medicine as follows: ...To develop magnetism, the regulations of the Ministry of Public Health on compensation must be corrected... (personal communication, December 26, 2017)

#### 5) Engagement

One comment concerning the retention of medical professors of the Faculty of Medicine, University A involves the creation of a mechanism to attract former students, as shown in the following interview:

...The former students hardly work with us. More than 200 graduated students from the six batches work mostly at the Ministry of Public Health because they feel that the environmental factors are better. The faculty does not have any bond with its students. We produced students for three years. I taught them for three years and they moved to work at the provincial center hospitals for three years. We are, therefore, distant. We have an engagement to students for only three years. The bond is rather low. This must be reformed... (personal communication, December 26, 2017)

This corresponds to the comment of one administrator, as follows:

...We are waiting for former students, six batches of which have graduated. The first batch of students have repaid their scholarship and are in the process of training on becoming medical specialists. We are waiting for this group. A certain number from that group have received our scholarship. Senior doctors always tell medical students that the one-digit alumni play a great role in the faculty, as it is the foundation of the faculty. Medical professors are buying

time to wait for this batch. However, medical students from Ubon Ratchathani are also interesting. Those from Khon Kaen who work with us become a key force. The alumni from Khon Kaen University who have their hometown in Ubon Ratchanthani and Si Sa Ket have not been proved if they will stay longer. However, many of them do not tend to leave... (personal communication, June 1, 2017)

One solution to retain talented personnel of the Faculty of Medicine, University A involves the creation of a bond with the alumni. It is believed that this bond may attract former students to become medical professors and work at organizations longer.

In brief, the methods for retaining talented personnel of the Faculty of Medicine, University A deals with the overall picture of educational reform of health personnel. This idea is a holistic system. After educational reform, attitudes and the concepts of medical professors should be adjusted to understand the context of the faculty, its vision and missions in order to understand the work in the same work direction and to build a connection. In addition, at the same time, hospitals should be developed in order to promote a positive work atmosphere among medical professors. More importantly, their compensation should be adjusted to suit their workloads and the labor market. Finally, it is necessary to create engagement through a mechanism to attract former students.

#### 5.3.2.2 Faculty of Medicine, University B

According to the interviews with three administrators from the Faculty of Medicine, University B, the retention of talented personnel can be summarized by this researcher, as follows:

##### 1) Balanced Workloads

The major tasks of medical professors include teaching, research and services, which are acknowledged by all medical professors. The faculty of medicine has a duty of supporting and promoting them to work happily. Due to a lot of workloads and different individual preferences, medical professors should be

promoted to carry out their preferred tasks, as stated by one administrator of the Faculty of Medicine, University B.

...The retention of medical professors is possible by providing them with what they want. Suppose they prefer teaching more than treatment--give them what they want. Or, one wishes to treat more patients but teach less, or half treatment half research. However, what we are facing now is that most of them have to repay their scholarships, so they cannot resign... (personal communication, February 8, 2018)

Another comment from one administrator is in the same direction.

...Actually, concerning jobs, all medical professors realize their tasks or missions or the context. They know that they have to teach medical students. Secondly, they have to do research, which is supported by universities. Thirdly, they have to provide medical services. They have to balance these three workloads because we don't force them how much they have to teach. However, they are required to teach in accordance with their preference or willingness. They are free to do what they want ... (personal communication, February 9, 2018)

## 2) Work Atmosphere

Work atmosphere is a significant factor for working at the Faculty of Medicine, University B because the work atmosphere of the new medical schools does not contribute to medical professors' work. The Faculty of Medicine, University B has realized that it is the real cause of resignation. As a result, the work atmosphere has been continuously improved. Additionally, their livelihood is not equivalent to that at the old medical schools. However, all facilities are relatively complete. Here is an interview with one administrator:

... We have to consider the work atmosphere, which makes medical professors work happily, such as the work environment and equipment. As we are respectful and we will facilitate infrastructure, we have to create a work atmosphere or happy workplace so that they are happy and work longer ... (personal communication, February 9, 2018)

### 3) Management Structure

The Faculty of Medicine, University B has an advantageous management structure, as the management of the educational unit is separated and belongs to the academic field. As for the hospital, it is under the supervision of the university. The hospital is separated similar to Banphaeo General Hospital, where the director can independently manage the hospital because the university is autonomous and differs from other two universities, which rely on the rector and universities. All personnel can be managed by administrators in accordance with the university policies. The administration is driven in a united manner because of its structure. However, it is under the policies of doctor teams and university. The hospital director has a rather authoritarian power in terms of management of finance, personnel, performance evaluation and punishment. This is an advantage for the Faculty of Medicine, University B because of its agile management. It is easier and flexible to carry out policies to retain and attract talented medical professors compared to other new medical schools.

### 4) Compensation

As a result of an advantage with the management structure of the Faculty of Medicine, University B, as well as being a university under public supervision, personnel's income and compensation is higher than that of other universities. This factor is a major magnet to attract and retain talented personnel, e.g., medical professors, to work for organizations because compensation is still a basic significant factor for working people's lives. Although doctors are a top five profession with respect to high compensation, their compensation in comparison with their skills, abilities and risks may not be a final answer to attract them to continue

working, as stated in the interview with one administrator of the Faculty of Medicine, University B.

...Our compensation for medical professors is relatively higher than the public sector, but not as high as that in the private sector. This is a gap. The compensation from the Ministry of Public Health and the private sector is six times different. To offer the same compensation as that of the Ministry of Public Health, it is difficult to retain medical professors... (personal communication, February 9, 2018)

This is in line with the statement of one administrator, as follows:

...Suppose that doctors work for the Ministry of Public Health, you just provide medical services but not do research. If you work at the university, you have two additional tasks: teaching and research. If you get the same compensation, it will be difficult to retain them. We have to add compensation to them to let them know that their mission has more meaning, but their compensation must be about 1.5-1.7 times higher compared to that of the public sector, but not the private sector. This is another point to keep them to enable them to survive. They don't have to be physician on duty at private hospitals and don't have to get a wink of sleep. With this compensation, you can stay home preparing teaching or doing research... (personal communication, February 9, 2018)

In summary, the methods for retaining talented personnel of the Faculty of Medicine, University B includes balanced workloads and a positive work atmosphere. In addition, another advantage involves the management structure, which results in flexible management pertaining to high compensation and proper workloads of medical professors.

### 5.3.2.3 Faculty of Medicine, University C

According to the interviews with two administrators from the Faculty of Medicine, University C, the retention of talented personnel can be summarized by this researcher, as follows:

#### 1) Introduction of Roles and Missions

The first method to help in the retention of talented personnel of the Faculty of Medicine, University C is to enable medical professors to know their workloads, namely teaching, research and medical services. Thus, after knowing their roles and missions, this can mitigate the resignation problem. Since some do not realize that they have to teach students at the pre-clinical level, they may be dissatisfied with their workloads and eventually resign. The guideline for the Faculty of Medicine, University C involves an effort to promote medical professors to realize the benefits of this faculty. They are also asked about their demands in life. They know what they will receive when working here and what their career path will be. As medical schools have many workloads, they have to work hard, teach students and treat patients, as expressed in the interview with one administrator of the Faculty of Medicine, University C.

...There are many factors. In fact, some medical professors know from the beginning that they want to teach students. As some have a definite intention and attitude, they can continue working. Some may not be serious about money, they may be happy to do this job. The main reason is they haven't thought before that they will become professors. They want to come here due to their specialty. After graduation, they work and have discovered that they have not developed their skills. As a result, they switch to work in the private sector or a government position, if one is vacant... (personal communication, January 27, 2018)

#### 2) Hospital Development

Although the new medical schools in the northeast have their own hospitals, due to limitations involving service quality, budgets and other

limitations, it is difficult to develop hospitals to be equivalent to the faculties of medicine of the old medical schools or provincial hospitals. However, the hospitals of the faculties of medicine of the new medical schools are a major factor in the first priority affecting the retention of medical professors, as stated in the following interview with one administrator:

...The faculty has made an effort to establish a hospital equipped with facilities. As we know that one new physician will return, we have to find out what he or she specializes in or which operation he or she has performed. What we lack, we try to provide it to him or her. However, it is not quick, as the purchasing and provisions department cannot provide such tools so quickly. Finally, we don't have a proper budget. We try to provide necessary facilities and career paths to university professors, which are different, such as teaching, administration, research and arts and culture maintenance. Do they like doing research? Do we have any funds for the research? Do we support them to receive any external research funds? If we have, can we provide them other income sources to increase their compensation? However, the increasing amount cannot be equal to that of private hospitals... (personal communication, January 27, 2018)

### 3) Compensation

Compensation is still a basic major factor for people's work lives, although doctors are one of the professions with the highest salary in the country. Compared to skills, ability and risks, compensation may not be the final answer to attract doctors to work in the system. Similarly, as universities must be autonomous, the compensation of medical professors depends on the university regulations. In some cases, the compensation may not be sufficient to their necessity. As a result, some of them resign to work in the public or private sector, which offer higher compensation. The administrators of the Faculty of Medicine, University B, therefore, have adjusted their guidelines and sought ways to increase compensation for medical professors in order to attract and retain them, as shown in the following

interview with one administrator of the Faculty of Medicine, University C concerning this issue:

...As for compensation, we try to formulate our own income regulations because the university cannot afford us due to a flat payment rate. We provide the same rate as that of the Ministry of Public Health by providing a top up to medical professors. We have written our own regulations. The university acts are similar. The acts have authorized the University Council, which controls the university. We, therefore, formulate our own regulations of the faculty of medicine and submit them to the University Council for approval. If approved, it can be done ... (personal communication, January 27, 2018)

In summary, the methods for retaining talented personnel of the Faculty of Medicine, University C involves the introduction to medical professors' roles and missions so that they know their tasks, followed by hospital development to facilitate them and create a positive work atmosphere for them, as well as compensation adjustments to attract or retain them, respectively.

With reference to the above-mentioned statements, the retention of talented personnel of each new medical school in the northeast is different, as detailed in Table 5.10.

**Table 5.10** Summary of the Retention of Talented Personnel in the Three Medical Schools in the Northeast

No	Faculty of Medicine, University A	Faculty of Medicine, University B	Faculty of Medicine, University C
1	Educational reform	Balanced workload	Mission and role introduction
2	Attitude adjustment	Work atmosphere in the building	Hospital development
3	Hospital development	Management structure	Compensation
4	Compensation	Compensation	
5	Engagement building		

Table 5.10 indicates that the retention of talented personnel in each new medical school in the northeast is different. As for the Faculty of Medicine, University A, the overall retention in terms of education and attitudes is taken into consideration. Additionally, engagement is considered through a mechanism to promote and attract former students to work at the faculty. The Faculty of Medicine, University B focuses mainly on workloads in order to balance their workloads and create a positive work atmosphere. University B also has an advantage in terms of a management structure that is flexible for management. The Faculty of Medicine, University C has a key principle for the retention of talented personnel by introducing the roles and missions for medical professors before starting work. This can lessen the resignation problem.

The common issues involve the development of the faculties of medicine at hospitals A and C. Both universities have the same opinion that hospitals must be developed to be ready and suitable for the talent of the medical professors. Lastly, the three universities agree unanimously that compensation should be adjusted in

accordance with talent and workloads of the medical professors. If this can be implemented, medical professors can be retained for a longer time.

#### **5.4 Guidelines for Developing the Retention of Talented Personnel in the New Medical Schools in the Northeast**

The retention of talented personnel in the new medical schools in the northeast to continue working as long as possible is the organizational ability to motivate them to be loyal to their organizations. Organizations have a duty to provide safe work systems and provide a good work environment in order to promote personnel's physical and mental health, as well as to provide good quality and quantity of work back to the organizations. This can imply the company's potential to retain talented personnel to survive in the competitive route. However, these methods and processes may not be smooth and successful due to many issues and obstacles. Therefore, it is the duty of administrators to adjust strategies and seek effective development guidelines to cope with these issues and obstacles.

##### **5.4.1 Guidelines for Developing the Retention of Talented Personnel in the New Medical Schools in the Northeast**

###### **5.4.1.1 Faculty of Medicine, University A**

###### **1) Hospital Development**

At present, the Faculty of Medicine at University A Hospital only provides services at outpatient buildings. In reality, medical schools should be ready for complete medical services to serve as a major provincial hospital and to lessen the burden on provincial hospitals. On the contrary, new medical schools are not ready to provide a wide variety of services, which have a direct effect on medical professors because this cannot answer the question concerning their career path. The Faculty of Medicine at University A Hospital understands this problem well. As a result, the retention of talented personnel emphasizes promotion and development of hospitals to meet the demand of medical professors, who want to use their skills and

ability to treat patients and solve health problems in rural areas, as expressed in the following comment from one administrator concerning the solution to this problem.

...It must be accepted that our doctors were produced using a Western teaching and learning system that stressed specialty study. Therefore, when comparing working at medical schools in rural provinces with private hospitals, medical schools in large hospitals, doctors at private hospitals can provide better services than ours, which are newly opened. It is certain that doctors prefer working at private hospitals with ready facilities and high compensation. The salary at private hospitals is as high as six digits baht, while it is only five digits baht here ... (personal communication, May 18, 2017)

## 2) Image Building

The new medical schools in rural provinces have not been successful in terms of acceptance. In particular, the new medical schools, which are adjusting their administration of the faculty of medicine to be consistent and accepted by local people in order to meet the required standards. At the same time, they must be consistent with the production of medical graduates to provide services and to solve health problems. Therefore, the building of a good image for, and trust in, the new medical schools is necessary, as stated by one administrator of the Faculty of Medicine, University A in the following comment on this issue:

...We have to try to encourage doctors to work at this faculty of medicine. Now, the hospitals are focusing on building a good image and public trust in the new medical schools, but we have to build faith first so that doctors apply to work here. Before building faith, we have to build a good image and public trust. Only the concept may not be enough but we have to show them that we are in the process of initiating it, so that doctors move to work with us. Then, we will have more doctors and nurses. It is a common problem everywhere.

However, Khon Kaen and Songkhla don't face this problem anymore because they have passed that period... (personal communication, May 18, 2017)

### 3) Manpower Increase

The Faculty of Medicine University A Hospital is currently facing a shortage in manpower. In particular, the employment rate of medical professors, who are working and taking a study leave, has led to an amount that is less than 20 doctors. An increase in manpower is, therefore, an urgent issue that needs to be addressed. Due to many reasons, medical professors do not wish to work at the new medical schools. The existing hiring and employment rate cannot retain doctors to work for a long time. One administrator of the faculty of medicine commented on this issue, as follows:

...I will not say that how I will accomplish retaining medical professors because this is a persuasion at the end. In my opinion, medical school systems can produce acceptable medical teachers. To be accepted involves the production of medical teachers, who have their goals. If they can achieve their goals, they will be proud of themselves, love their organizations and will not leave ... (personal communication, May 18, 2017)

### 4) Special Compensation Increase

Medical professors' compensation should be adjusted to be flexible and suitable for their workloads in order to motivate them to continue working and reduce the resignation rate. One administrator from the Faculty of Medicine, University A commented on this topic, as follows:

...Concerning compensation, we try to propose the university to consider it as a special case. The compensation cannot be equal to that of other professors because we are facing a shortage of medical professors. The supply and demand are considered. In case of too low of compensation, to compare it with

that of other professors, it will not be equal. We must accept this. Based on equality, the problem cannot be solved... (personal communication, January 8, 2018)

#### 5.4.1.2 Faculty of Medicine, University B

##### 1) Excellent Center

The development of talented personnel at the Faculty of Medicine, University B involves the promotion of medical professors' knowledge and ability to develop the hospital to be an excellent center because the heart of the medical profession is the hospital. If there are no hospitals, it can be compared to soldiers who have no weapons to fight against enemies. Similarly, doctors must have hospitals to train their skills, especially hospitals equipped with tools and equipment. If it is accomplished, the resignation rate of doctors will decrease, as shown in the following statement of one administrator of Faculty of Medicine, University B.

...I think in the future this university will become similar to Prince of Songkhla University, Khon Kaen University and Chiang Mai University. The medical school here will be an excellent center in the province. In Chiang Mai, there are Nakronping Hospital and the provincial hospital, while in Khon Kaen there are Khon Kaen Regional Hospital and Srinagarind Hospital. In Songkhla, there are Songkhla Hospital and Hat Yai Hospital. Here, there are Maharat Nakhon Ratchasima Hospital and University Hospital. In the future, it will serve as a center to become a medical school that stresses teaching, learning and research on complicated diseases, as well as a transferring center. The resignation rate of medical professors will likely to decrease or to be very low... (personal communication, February 9, 2018)

##### 2) Personnel Maintenance and Increase

Doctors are part of a profession that requires professional skills and the skilled doctors are in high demand by the labor market. The number of skilled doctors is not able to meet this demand, however, because the profession is

currently experiencing a shortage in the number of skilled doctors. It is the organization's duty to apply methods to attract and retain medical professors to work at the organization as long as possible. When they resign, they have to be replaced in order to continue carrying out the operation smoothly. One administrator of the Faculty of Medicine, B University commented on the retention and increase of manpower, as follows:

...I think that new medical schools nowadays have to struggle more to exist because the regulations favor the old medical schools in that they receive more budget monies because they have readiness and can recruit more medical students.. The budget tends to be gradually lower. To exist, the existing personnel must be maintained and the replacement of new staff must be promoted. However, the new medical schools have to struggle to survive...  
(personal communication, February 8, 2018)

### 3) Engagement Building

As for the retention of the Faculty of Medicine, University B's personnel, the analysis of the causes of medical professors' resignation indicates that some of them resign to move to their domicile. The recruitment, therefore, has to be adjusted to recruit local residents or be related to the province in order to promote indirect engagement of medical professors that results in them continuing to work for a long time, as shown in an example comment of one administrator of the faculty of medicine.

... Later, we have given a great importance on domicile. If their hometown is not here or there is no connection with this province, the other candidate, who lives here but other profiles are not different, will be selected. Local residents will be considered first. We are afraid of those living far away. If they are former students and have good grades, we will be confident that they will have organizational engagement since they were former students. It will be easy to keep them. Others graduated from here but will not become teachers

automatically. We cannot refuse that if there are two candidates: the first is our former student with good grades and habits, while the other may come from Siriraj Hospital, with their hometown being Bangkok and we have never known him or her, that we certainly prefer the first candidate... (personal communication, February 9, 2018)

#### 5.4.1.3 Faculty of Medicine, University C

##### 1) Talent Management

The administrator of Faculty of Medicine, University C mentioned that the development and retention of talented personnel is based on talent management. It is noted that the administrator has realized the importance of medical professors and that the context of management should be more flexible than that of professors in other fields. Because of their roles, duties, workloads, expertise, shortage and brain drain, the talent management principle is an appropriate method, as expressed in the following interview of one administrator from the Faculty of Medicine, University C.

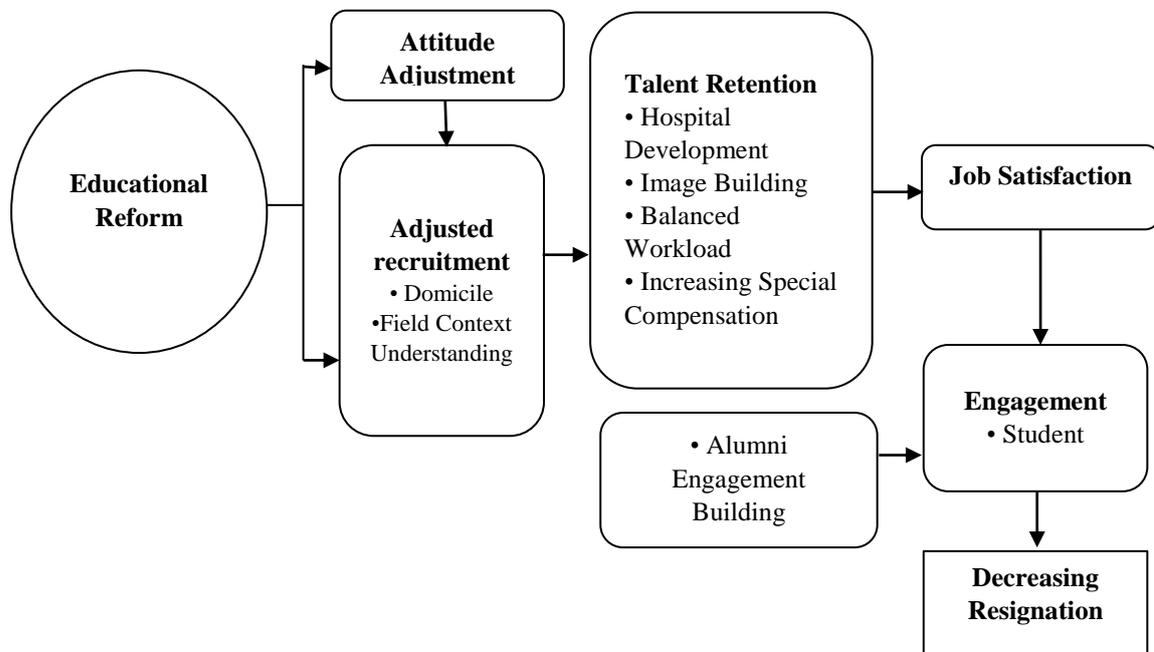
...The talent management principle must be clear. This group is called a talent group. Therefore, it cannot be treated like other general groups. We have to clarify to all staff that the same standard cannot be applied. You must accept the fact that it involves talent management. You cannot use the same principle. You have to dare to tell all the staff about talent management, otherwise others will question why this group. You have to accept that you cannot claim for equality... (personal communication, January 27, 2018)

**Table 5.11** Summary of the Methods for Retaining Talented Personnel in the New Medical Schools in the Northeast

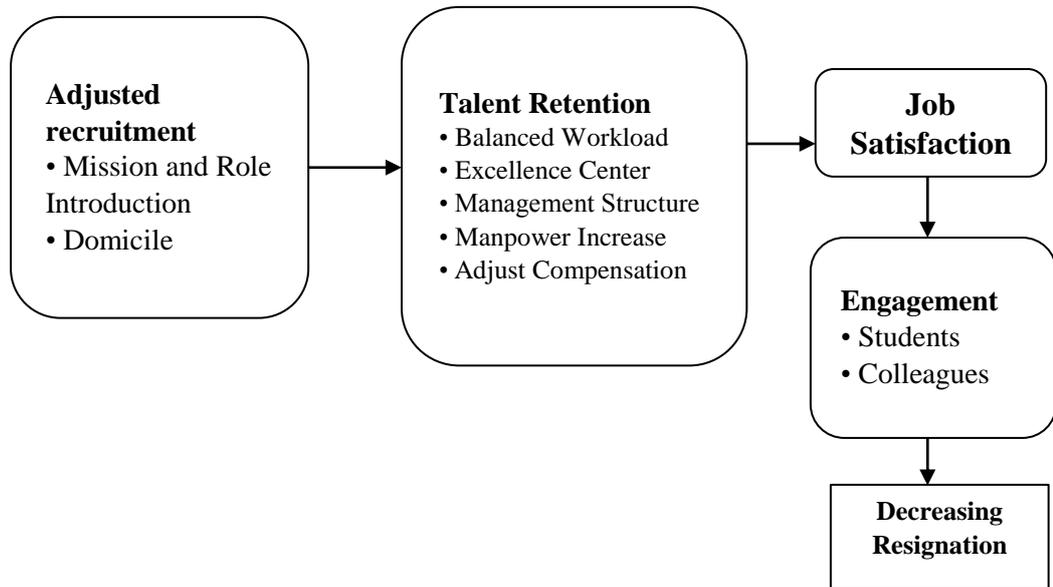
No	Faculty of Medicine, University A	Faculty of Medicine, University B	Faculty of Medicine, University C
1	Hospital Development	Excellent Center	Talent Management
2	Image Building	Manpower Retention and Increase	
3	Increasing Manpower Rate	Engagement Building	
4	Increasing Special Compensation		

With reference to the above statements, it can be concluded that all faculties of medicine at each of the universities have a point of view towards medical professors in the same direction; that is, their retention must differ from that of other faculties. As a result of the medical profession, the Faculty of Medicine, University C has applied the talent management guideline to retain medical professors. Similarly, University B viewed that talented personnel should be retained by promoting and developing the hospital to become an excellent center. The Faculty of Medicine, University A has the same concept that medical professors should receive more special compensation than other professions.

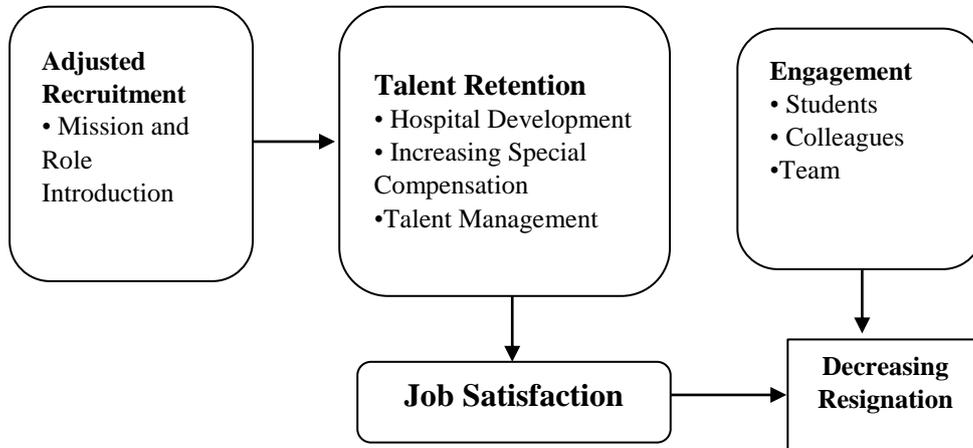
### 5.5 Summary of the Models for Retaining Talented Personnel in the New Medical Schools in the Northeast



**Figure 5.1** Model for Retaining Talented Personnel in Faculty of Medicine, University A



**Figure 5.2** Model for Retaining Talented Personnel in Faculty of Medicine, University B



**Figure 5.3** Model for Retaining Talented Personnel in Faculty of Medicine, University C

## **CHAPTER 6**

### **CONCLUSIONS, DISCUSSION AND RECOMMENDATIONS**

In this chapter, this researcher has presented the conclusions, a discussion and recommendations pertaining to the results of the study, starting from the results of the study concerning the three new medical schools in the northeast. The key informants of this research include a total of 38 personnel: 27 medical professors who are working at the new medical schools in the northeast, nine administrators from the new medical schools in the northeast and two qualified experts.

This researcher has addressed the following research objectives – 1. to study factors affecting the retention of talented personnel in the new medical schools in northeastern Thailand by understanding the context of the medical professors' resignation, as well as the causes and factors for their resignation, and by analyzing how those causes affected the medical professors' retention. The results of qualitative research in Phase 1 were used as a guideline for the analysis of relevant concepts, theories and research. The revised guideline was applied to the study in Phase 2. After that, the second research objective was met, that is, to study how to retain talented personnel in the new medical schools in northeastern Thailand. The medical professors' resignation data acquired from Phase 1 was analyzed and developed to be a guideline to be used as an aid for the retention of talented personnel in the new medical schools in the northeast. In Phase 2, the retention method of talented personnel in each new medical school in the northeast was unveiled. The third research objective, to study the development guidelines for retaining talented personnel in the new medical schools in northeastern Thailand, was met. Following the study in Phases 1 and 2, this researcher analyzed factors which had positive impacts on the retention of talented personnel in the new medical schools in the northeast, so as to formulate a guideline to aid in the retention of talented personnel in the new medical schools in the northeast and to provide additional information from

qualified experts in medical education. The guideline for developing talented personnel in the new medical schools in the northeast will be adjusted to be as complete as possible to summarize the results of the study.

Afterwards, this researcher discussed the results of the study in accordance with the research objectives and then has proposed recommendations in terms of management and policies, as well as suggestions for further research, as outlined below.

## **6.1 Conclusions of the Research**

### **6.1.1 Factors Affecting the Retention of Talented Personnel in the New Medical Schools in Northeastern Thailand**

With respect to the factors affecting the retention of talented personnel in the new medical schools in the northeast, this researcher summarized four factors: external factors, such as state policies, the health labor market and technology; internal factors, e.g., university policies, administration systems and organizational image; the two factors directly related to medical professors: task-related factors, such as workload, job characteristics, environment and work atmosphere, compensation and welfare, career path and work-life balance; and individual factors, namely age, family and domicile.

After the factors affecting the retention of talented personnel in the northeast were ranked, it became evident that the first priority factor involves the environment and work atmosphere, especially the unpreparedness of hospitals under the Faculty of Medicine, followed by job characteristics and workload, family and domicile, and compensation and welfare, respectively.

## **6.1.2 How to Retain Talented Personnel in Each New Medical School in Northeastern Thailand**

### **6.1.2.1 Faculty of Medicine, University A**

As for the Faculty of Medicine, University A, overall retention methods involve education reform of health personnel, as well as adjustment of medical professors' attitudes and concepts so that they understand the context of the faculty of medicine, its vision and its missions to link with the operation direction. Hospital development is also required to promote a positive work atmosphere. Additionally, compensation should be properly adjusted to suit their workload and the labor market. Finally, engagement was considered through a mechanism to promote and attract former students to work at the faculty.

### **6.1.2.2 Faculty of Medicine, University B**

The Faculty of Medicine, University B focuses mainly on balanced workloads and a positive work atmosphere. University B has also an advantage in terms of its flexible management structure that results in the management of compensation which suits their workloads.

### **6.1.2.3 Faculty of Medicine, University C**

The method for retention of talented personnel of the Faculty of Medicine, University C is the introduction of the medical professors' roles and missions; development of hospitals to facilitate medical professors and create a positive work atmosphere; and adjustment of their compensation to attract them to continue working and to be consistent with their workloads.

## **6.1.3 How to Develop the Retention of Talented Personnel in Each New Medical School in Northeastern Thailand**

### **6.1.3.1 Faculty of Medicine, University A**

The first guideline for developing retention of talented personnel for the Faculty of Medicine, University B involves the development of hospitals to be ready to provide services, followed by buildings are a liable image to attract and retain personnel, increasing the hiring rate to replace the employees who had resigned and increasing special compensation to motivate talented personnel.

#### 6.1.3.2 Faculty of Medicine, University B

The development of talented personnel at the Faculty of Medicine, University B involves the promotion of medical professors' knowledge and ability to develop the hospital to be an excellent center. Organizations have to attract and retain medical professors as long as possible. In case of any resignation, new personnel must be recruited to replace those who had resigned to ensure smooth operation. In addition, the recruitment has to be adjusted to recruit local residents or others residing in the province in order to promote indirect engagement of medical professors that results in them continuing to work for a long time.

#### 6.1.3.3 Faculty of Medicine, University C

The development and retention of talented personnel is based on talent management. It is noted that the administrator realizes the importance of medical professors and that management should be more flexible than that of professors in other fields.

Additionally, the problems and obstacles related to the retention of talented personnel in the new medical schools in the northeast include a lack of acceptance, lack of manpower hiring rate, lack of flexible workloads and limitations associated with regulations and policies.

## **6.2 Discussion**

With respect to the results of the study, this researcher presents a discussion of the results in accordance with the research objectives as follows:

### **6.2.1 Factors Affecting the Retention of Talented Personnel in the New Medical Schools in Northeastern Thailand**

The retention of talented personnel in the new medical schools in the northeast is a challenging issue for organizational administrators because talented personnel, who are the main target groups required to be retained as long as possible, include medical professors. There are also other direct and indirect factors affecting their

retention. Direct factors affecting the retention of talented personnel include task-related factors and individual factors.

#### 6.2.1.1 Task-related Factors

In this research, the causes of the resignation of talented personnel in the new medical schools in the northeast are directly related to work. This is in line with the concept presented by Mowday, Porter, and Steers (1982, pp. 45-50), who mentioned that individual turnover is caused by major factors, e.g., affective responses to the job, which are the cause of resignation, such as job satisfaction and engagement. The results of the study revealed that after prioritizing the factors affecting the retention of talented personnel in the new medical schools in the northeast, the first priority task-related factors involve the work environment and work atmosphere. The unpreparedness of hospitals associated with the faculty of medicine is the first important factor affecting their decision in continuing to work or resign. Due to the unpreparedness of hospitals, medical professors with a specialty cannot perform medical procedures that they are good at. Because of the unpreparedness of the work environment in terms of buildings and medical technology in the early stage of the establishment of the new medical schools, specialty doctors, who graduated and worked for their scholarship, resign every year, especially surgeons and anesthesiologists. This corresponds to the concept of Mano-Negrin and Kirschenbaum (1999, p. 695-698) stating that the professional purpose is a driving factor that may have the highest effect on the resignation. This is inconsistent, however, with other relevant research, most of which involve doctors' workloads. However, in this research, the new medical school areas have specific characteristics and are not ready in many aspects. This is different from other general hospitals or the old medical schools. Most medical professors need a clear professional career path, which is consistent with the opinion of Morgan and Zeffane (2003, pp. 56-57), who stated that all personnel require a career path. Therefore, each employee is expected to receive an opportunity from his or her organization, especially with respect to efficient training and development, as well as they want to know that they can be promoted to higher positions

Task-related factors having direct effects on the retention of medical professors that are less significant, include workloads and job characteristics. Each medical school has to bear the burden of producing graduates and treating patients, as well as cooperating with other external organizations. As a result, management is not clear and some doctors who are not good at some tasks have to resign. According to the interviews, most of the remaining medical professors in the new medical schools like teaching. This corresponds to Dahlstrom, Dorai-Raj, McGill, Owen, Tymms, and Watson, A. (2005), who expressed that teaching satisfaction is the most important motivation.

Another important factor involves workloads. Various research works indicate that workloads have the highest impact on doctors' resignation. Arkardjang (2013, p. 47) stressed that occupational status and work relationships influence resignation. It does not concern compensation or personal life, which is misunderstood by many people. However, the factors that have led to government doctors' resignation include excessive workload, lack of a career path and administrators or supervisors. This is consistent with the concept of Allen, Hale, Herzberg, and Paice (1999, pp. 80-82) who found that a large number of doctors want to resign due to excessive workload or too many work hours. They have to be patient with task-related pressure because of their changing tasks and unclear management, or lack of absolute authority. All of these reasons are in the same direction. Due to the fact that they are medical professors at universities, they have to carry out all tasks, such as teaching, research and medical services. This partly affects their decision to stay or leave. In particular, universities which have relatively high readiness with respect to the new medical schools have a lot of workloads in all aspects, especially medical services.

The last task-related factor, which involves compensation and welfare, is an organizational factor that leads to doctors' resignation because they may be dissatisfied with this compared to their responsible workloads. Compensation is, therefore, a major factor affecting resignation. This is in line with Virasombat's concept (2009) stating that the workloads of doctors in community hospitals must be matched with attractive compensation for supporting the hospital quality development

policy. Balancing their life and their workloads must be taken into consideration. Additionally, the problem is similar to the issue of retention of talented personnel at the Office of the Civil Service Commission, whereby compensation and welfare is the most important obstacle (Srisawad, 2013, p. 47). However, as for the medical profession, compensation and welfare is not an influencing factor like other factors, e.g., workloads, because compensation for the medical profession is higher than that of other professions. This corresponds with the research of May, Mand, Biertz, Hummers-Predier and Kruschinski (2012, pp.5-8), which questioned the motivation for teaching medical students, as well as compensation payment. This revealed that these factors are unrelated, but welfare has some effects in some cases. For example, medical professors at the medical schools, who are under the Ministry of Education, are ready for being an autonomous university under the supervision of the public sector. Thus, their welfare is different from that of government officers, but it is not an overall problem.

#### 6.2.1.2 Individual Factors

Individual factors have a direct effect on the retention of medical professors because they mostly relate to their identities. However, they cannot be controlled by organizations due to non-work factors, such as marriage necessity and family engagements. The individual factors that have the highest impact on their retention include domicile and family. According to the interview with medical professors from the new medical schools, who are working, most of them have their domicile in the same province (48.15%) or the surrounding provinces of their workplaces (18.52%).

One main cause of medical professors' resignation from their medical schools involves their domicile in order to take care of their parents and relatives. This is consistent with Ingkharat Sikheawsukwongkot's research (2559, p. 194) which found that parents are the second priority, while friends are the first priority because they have the greatest influence concerning the turnover of physicians in Thai public hospitals. Their marital status is another reason for their resignation. In particular, female medical professors who are married usually move to accompany their husbands. Their marital status is, therefore, a major reason for resignation. This is in

line with the research of Ezzedeen and Ritchey (2009, pp. 396-397) who mentioned that marital status is a key factor affecting the balance of work and life of female administrators under the leading global organizations in the United States.

Age-related factors have only a slight effect. Based on the data collection, most of the medical professors who continue working are 31-35 years old and 30-40 years old, respectively. Most of them are Generation Y. Many administrators of the new medical schools noted that many resigned medical professors are associated with Generation Y, who require challenges and compensation that suits their work lives, so some of them have resigned.

#### 6.2.1.3 Internal Factors

Internal factors include university policies, management systems and organizational image, which are the major reasons that affect the management of medical schools because the retention of medical professors is very vital. This is consistent with the concept of Virasombat (2009) who stated that administrators play a key role in creating motivation by either allowing all staff to take part in decision making with respect to key organizational missions or by improving staff compensation in accordance with their workloads under the hospital quality development policy, which has been continuously and clearly implemented. The new medical schools have to cope with the management policy provided by the university. Some policies may not be suitable for medical professors, such as using the same performance assessment system used by the entire university. Due to different medical professors' workloads concerning medical services, they feel dissatisfied and resign. This corresponds with Guthrie & Datta's statement (2008, pp. 118-120) that the higher turnover rate of each organization is caused by lack of a personnel development policy or poor personnel recruitment planning, lack of operational guidelines and complaint procedures, and lack of motivation. All of these may lead to the intention to resign.

Organizational image becomes a key factor for attracting and maintaining talented personnel. Medical schools usually have a good and trustworthy image, especially older medical schools because they are the national doctor production institutes. However, the image of the new medical schools cannot be

compared to the older ones or large provincial hospitals due to their newness and unpreparedness. Thus, developing a good image of organizations is emphasized by medical school administrators because it cannot only attract and retain excellent medical professors, but it also affects the reliability of medical students who graduated from the new medical schools. This is consistent with the study of Karemu, Kachori, Josee and Okibo (2014) on the retention of medical personnel at the National Hospital in Nairobi, Kenya. This study found that factors linking organizational atmosphere and learning, career path, training and self-development, as well as compensation are the major causes of personnel's decision to stay at their organization. At the same time, new strategies for talented personnel management must be formulated, along with an effort to build a good image through the provision of complete services in order to retain doctors and nurses because this profession is in shortage throughout all areas in Kenya and intense medical competition takes place around the world.

#### 6.2.1.4 External Factors

External factors such as state policies, health labor and technology have indirect effects on the retention of talented personnel. However, these factors cannot be controlled by organizations. The medical schools can only adapt themselves and deal with situations and changes associated with the aforementioned external factors. The administrators play a role in leading organizations and retaining talented personnel to continue working with the highest efficiency. However, with respect to the new medical schools, they are not ready in various aspects. This is in line with the opinion of Emmerson, Brown, Whiteford, McVie, and Kuipers (1996) who expressed that the decision of most physicians in the United Kingdom to resign is because they want to move to non-metropolitan areas due to family and social reasons. This covers their field of work, lack of independence, and responsible workloads that do not suit their compensation. Family and external society relate to the relocation to a different area; for example, some doctors have moved to accompany their families. Thus, it can be mentioned that area factors affect resignation. This corresponds to the concept of Wotruba and Tyagi (1991) concerning task-related factors. Apart from job characteristics, other factors that have an effect on a decision to leave a job include

work skills, professional status, organizational size, the distance between housing and workplaces, topography and work structure. For example, those working in large cities have less job satisfaction than those working in small cities.

## **6.2.2 Retention of Talented Personnel in the New Medical Schools in the Northeast**

### **6.2.2.1 Retention of Talented Personnel**

Concerning the methods for the retention of talented personnel, this researcher interviewed the key informants comprising medical professors working in the new medical schools and administrators. As for the medical professors, the questions involved factors that affect their retention. Berger and Berger (2004, p. 403) stated that having an understanding of personnel's expectations and having a connection to plans or human resource management systems and organizational goals, along with communication systems between organizations and personnel, are a key strategy to drive organizations. With respect to the study, it is evident that the first priority factors affecting the retention of medical professors involve their domicile, followed by pioneering participation, job characteristics, scholarship repayment and colleagues, respectively. Additional factors affecting the retention of medical professors include job satisfaction and organizational engagement.

1) Factors that influence an employee's decision to stay include job satisfaction involve job characteristics. This is consistent with the study of Wotruba & Tyagi (1991) which concluded that marketing personnel at all levels of direct sales business in Kerala, India take into consideration job characteristics that relate to their responsible positions, which lead to expected job satisfaction due to age conditions. If job characteristics are not challenging or not related to other factors, they will have an intention to resign immediately. This corresponds to the findings of this research. Job characteristics of medical professors consist of three tasks: teaching, research and services. Some medical professors may dislike all tasks, but they may enjoy teaching only or like research only.

2) Factors that influence an employee's decision to stay involve engagement: The results of the study indicate that pioneering participation

and colleagues lead to medical professors' engagement and retention. This in line with Welbome's statement (2007) that organizational engagement was developed based on the Role Theory that links to various organizational roles, which can be categorized into five types: job holders, team members, entrepreneurs, career roles and organization members. This implied that management and pioneering participation in the medical schools from the beginning made medical professors have a sense of engagement and have a feeling as if they were entrepreneurs or organization members who help to drive the organization. Good colleagues and good teamwork also lead to organizational engagement. This corresponds to McCauley's concept (2013) that emotional factors connect to individual satisfaction and inspiration, as well as pride in becoming a member or part of an organizational assignment. In particular, personnel in famous organizations with an external good image, led by ethics and attentive managers, will be pleased to be assigned to carry out particular tasks and to take part in the decision making. These organizations usually allow their employees to regularly grow and develop, as well as maintain their quality of life at the same time. In addition, this is consistent with Sikheawsukwongkot's opinion (2016, pp. 183-184) that organizational engagement involves an internal factor having the most effect on the resignation of doctors from Thai hospitals in the government system.

Satisfaction and engagement are key factors that made medical professors continue working at the same medical schools. Medical professors are satisfied with workloads and balanced lifestyles, although they have to perform different tasks, such as teaching, research and patient treatment. All of them are satisfied with their administrators' and organizations' support. Additionally, each medical professor must seek new directions to develop themselves, their tasks and their organizations. This is a challenging job in order to solve problems and achieve the objectives in accordance with the specified policies. They, therefore, devote themselves to their jobs and the missions of the medical schools to successfully carry out goals and policies. It can be a challenge for the medical professors to have a wide variety of tasks, be given a chance to use their creativity and problem-solving skills, and have total job satisfaction. If they can meet all of these challenges, it is a reason

for individual satisfaction (Dyk, Coetzee, & Takawira, 2013, p. 62). At the same time, numerous medical professors have engagement with colleagues, administrators and students, which leads to a feeling of 'family' engagement because of value realization, opinion acceptance and mutual respect. Due to the above reasons, they are major factors that lead to medical professors' decisions to stay at the medical schools (McGuire, Houser, Jarrar, Moy, & Well, 2003).

#### 6.2.2.2 Retention of Talented Personnel

The study revealed that each northeastern medical school has different retention methods. As for the Faculty of Medicine, University A, the retention involves the big picture of education, attitudes and engagement through a process that promotes and attracts former students to work at the organization. The Faculty of Medicine, University B emphasizes tasks to balance workloads and build a positive work atmosphere. This corresponds to Price and Mueller (1986), who stated that over workloads, repetition, decentralization and career path may affect job satisfaction and organizational engagement. In addition, this is consistent with the concept of Miller, Erickson and Yust (2001, p. 42) that a good organizational environment and atmosphere promotes organizational ownership.

Additionally, the Faculty of Medicine, University B has an advantage in terms of a flexible management structure. This is consistent with Taha, Gajdzik, & Zaid (2015, p. 98), who found that the organizational size affects the application of the management process of talented personnel in different dimensions, namely 1) training and development to address increasing competition and changing trends in the medical profession, which take place all the time, 2) personnel preparedness or preparation of personnel to be suitable for the tasks for which they are responsible, and 3) performance assessment management under the various regulations and laws. The Faculty of Medicine, University C has a principle for the retention of talented personnel which involves introducing their roles and missions before working as medical professors. When they realize their roles and missions, this can reduce their resignation.

The common issues involve hospital development. The Faculty of Medicine, University A and University C have the same opinion that they want their

hospitals to be developed to have readiness and potential in accordance with the talent of medical professors. This is in line with Schultz's concept (2002) expressing that organizational management affecting job satisfaction includes work conditions, e.g., light, climate, temperature, work hours, noise and other environmental conditions covering equipment, tools and facilities. The last factor involves compensation. All three universities agreed they should be properly adjusted in accordance with their talent. This corresponds with the concept of Gardner, Van Dyne, Pierce (2004) that compensation and payment are a motivation and a technique for creating morale because they may change their mind about resigning. Apart from that, medical professors' workload may influence medical professors to stay longer. Similarly, Selesho's research (2014, p. 302) on the job satisfaction of university professors in South Africa was conducted by selecting 80 professors with more than 10 years of experience in education. The findings indicate that compensation, organizational support and leadership have an effect on job satisfaction of university professors in South Africa.

### **6.2.3 Guidelines for the Retention of Talented Personnel in the New Medical Schools in the Northeast**

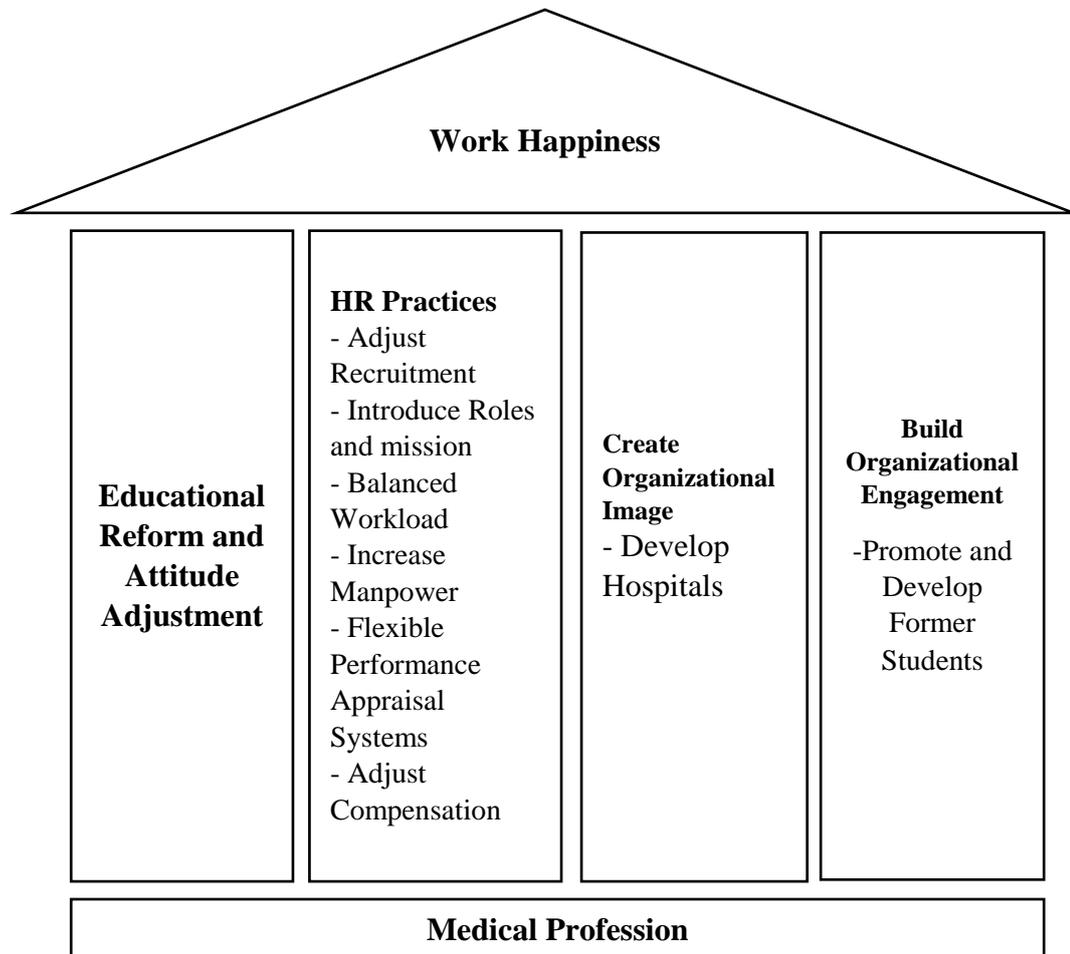
The faculties of medicine at each of the universities have the same view concerning medical professors-- that their retention must differ from professors at other faculties because of the fact that they are in the medical profession. The Faculty of Medicine, University C adopted talent management to retain medical professors. The Faculty of Medicine B also focused on talent management by promoting the development of its hospital to become an excellent center. The Faculty of Medicine, University A had an idea that medical professors should receive more compensation than other fields. Based on the results of the study relating to the overall retention of talented personnel, each of the universities directly or indirectly applied talent management. According to Gubman (1998, p. 48), the management framework for retaining talented personnel includes the following: strategy implementation based on talent management; identification of talent or recruitment of competent personnel by assessing individual talent in accordance with organizational competency, e.g.,

medical professors who are talented personnel required by the new medical schools, followed by development of talent, such as, assignment of challenging jobs; rewarding talent (compensation to suit their talent) and retaining talent, respectively. Retaining talent involves motivation management, along with giving importance to these personnel. Overall, it is a guideline used by the new medical schools to retain talented personnel like medical professors because what they really need is work happiness or to do what they wish to do and what meets their expertise and knowledge. This corresponds to the concept of Samuel and Chipunza (2009, pp. 413-415) stating that other significant factors affecting the retention of talented personnel include training and development, challenging tasks, opportunities to use independent creativity and job security.

In summary, based on the researcher's findings, the best retention of talented personnel in the new medical schools involves organizational engagement. As commented by McCauley (2013), employees' organizational engagement stresses on individual feelings and behaviors in accordance with their roles and responsibilities. This may start from job satisfaction to commitment. Finally, job satisfaction at the beginning becomes strong and permanent engagement, which focuses on participation and responsibility according to formal and informal roles. The results of the research imply that all medical professors who continue working have organizational engagement because they have feeling that they took part in pioneering in the new medical schools from the start. In addition, many medical professors have engagement with students. They are happy and proud of the success and growth of their students. Thus, they continue working in order to develop their students that represent the next generation. Therefore, money is not the final answer for the retention of medical professors, rather it is promotion and engagement that lead to medical professors' staying. This is consistent with the concept of McGuire, Houser, Jarrar, Moy, and Well (2003) that many administrators have a misunderstanding that only compensation makes personnel satisfied and engaged. In brief, if there is any encouragement or mental cohesion, staying at organizations for a long time may not be a difficult issue for medical professors any longer.

### 6.2.4 Methods for the Retention of Talented Personnel in the New Medical Schools in the Northeast

With respect to the research on the retention of talented personnel in the new medical schools in the northeast, this researcher found that suitable methods for the retention of talented personnel in the new medical schools are different from other organizations related to medical services, such as the old medical schools or public hospitals, e.g., provincial hospitals, since the new medical schools are in the process of constructing strong foundations. This researcher has summarized the guidelines and identified methods for the retention of talented personnel in the new medical schools in the northeast, as shown in Figure 6.1.



**Figure 6.1** Methods for the Retention of Talented Personnel in the New Medical Schools in the Northeast

The retention of talented personnel in the new medical schools consists of four aspects.

Firstly, education must be reformed and doctors' attitudes must be adjusted because most of the doctors in Thailand currently favor being specialty doctors due to various factors. The point of view concerning holistic health systems should be adjusted in the medical education system. In other words, treatment should not be emphasized only, but prevention and rehabilitation must be also concerned so that people have good health rather than treatment after being sick. The medical education system in the new medical schools must be consistent with service hospitals in order that doctors, who have finished their studies, can solve health problems which vary according to each area. This can solve the problem of an over-concentration of doctors in the capital.

Secondly, the management of human resources should involve an adjustment concerning recruitment, starting with selection. Local people, or those who have their domicile or family in the same province or nearby, should be specially considered. Workloads, roles and responsibilities should be also clarified to medical professors so that the interested medical professors can evaluate themselves prior to employment and decide whether they are suitable or not for such jobs. Workloads should be adjusted to be flexible and suitable for their specialties. This will make them satisfied with the assigned workloads because they can manage time in a balanced manner. They do not have to bear the burden of pressure and stress all the time, while some medical professors are satisfied that they can completely work with the organizational support. Additionally, they can act in multi roles, namely teaching, research and treatment. This is a challenging job because it does not concern their profession only, but manpower must be sufficiently and flexibly planned and managed to suit their tasks. However, the compensation must be suitable as well.

Thirdly, a positive organizational image is necessary for the new medical schools, as their function is to produce medical graduates to provide health services to people. Having a good image will result in reliability and security of the medical schools. It also partly attracts competent medical professors to work at their organizations. Unpreparedness of the new medical schools hinders some doctors from

doing research in case studies that they are interested in. Or, the results may not cover all dimensions. Medical professors are, therefore, dissatisfied with their jobs and are bored with the organizational environment. The development of hospitals to be modern and complete with respect to services to serve local users and other users will result in not only better health of people but also job satisfaction of medical professors and a set career path for the doctors.

Fourthly, the key to the retention of talented personnel in the new medical schools in the northeast includes organizational engagement through the administrators' management. All employees should have a chance to take part in the decision making with respect to organizational missions. This is a major factor that leads to medical professors' job satisfaction and colleague engagement. Such engagement may link administrators because of value realization and participation in organizational development. In addition, the new medical schools must use strategies for developing and promoting former students to become medical professors because no one loves his home as much as someone with a house in their hometown. These former students are engaged and proud to be part of developing their hometown area.

The above-mentioned issues must be addressed as part of the topic concerning work happiness because talented medical professors wish to perform tasks that they are good at, or which are challenging. If anything affects their minds or feelings, it can influence their retention. Additionally, they all must be under the foundation of the medical profession. Lastly, administrators must teach or give advice to medical professors by themselves in order to create trust, acceptance and confidence among all employees in the medical schools. This positive concept can promote harmony in carrying out operations in accordance with organizational policies and plans under a creative and integrated culture. Although the three medical schools have different contexts, the types of methods used to improve the retention of talented personnel in the new medical schools in the northeast can be also basically applied for the retention of talented personnel in all medical schools

## **6.3 Recommendations**

### **6.3.1 Policy-based Recommendations**

6.3.1.1 Public policies: The public sector should emphasize the issue of an inequality in health services and doctor distribution to rural areas, rather than the production of additional doctors. If the production of doctors is still focused on in the future, there may be new medical schools which will face the same problems. The Ministry of Public Health should not only promote and support medical education at the clinical level, but also take part in promoting teaching and learning of medicine at the pre-clinical level. In some cases, at some universities or the new medical schools, which are facing a shortage of personnel, there may be cooperation in exchanging learning and teaching. Additionally, the Medical Council of Thailand should adjust the regulations concerning the control of teaching and learning of the medical profession to better contribute to the management of the new medical schools. However, the quality of doctor production should not be reduced.

6.3.1.2 University policies: The universities that the new medical schools belong to should formulate human resource management policies pertaining to compensation regulations and flexible performance appraisals. The faculty should be autonomous to formulate regulations because some professional fields are suffering from a shortage and, therefore, are in high demand. It is therefore necessary to retain these personnel.

6.3.1.3 Organizational policies: Administrators should promote major policies via the organization's vision and mission so that personnel are informed of the operational guidelines and practices. Policies must be stable and promote the strong points of the medical schools. In addition, they should not be always changed when administrators are changed.

### **6.3.2 Management Recommendations**

Human resource management in the new medical schools

6.3.2.1 Recruitment: Required characteristics of medical professors should be clearly identified. Such characteristics should be explained to applicants so that they understand their basic roles and the organization's mission to screen out those who are not interested in the system.

6.3.2.2 Career path promotion, such as scholarships, should include regulations and requirements for scholarship repayment, as well as the screening of scholarship receipts to avoid resignations after repayment.

6.3.2.3 Work atmosphere and environment, e.g., medical equipment and facilities, as well as the shortage of medical personnel in some fields, must be urgently solved by the medical schools. When the medical schools can provide services to the general public, medical professors can use their talent to treat patients and organizations can produce doctors to sufficiently meet the number of patients treated at public hospitals nationwide.

6.3.2.4 Justice: Medical professors should be fairly treated by the medical schools in order to reduce risks and pressure from complaints, prosecution and litigation so that medical professors can perform their tasks under a feeling of professional security and organizational responsibility.

### **6.3.3 Recommendations for Further Research**

6.3.3.1 The retention of talented personnel in the new medical schools at a wider level, e.g., national level, should be studied to see the overall retention and to compare the regional retention in order to exchange learning and to find the best practice to serve as a model for the sustainable retention of talented personnel.

6.3.3.2 The context of the development of talented personnel in the provincial old medical schools in the past should be studied and compared in order to realize the problems and views to be applied to development in further study.

6.3.3.3 Factors affecting the retention of talented personnel in large-scale medical schools should be studied to be beneficial for the study, development and management of organizational personnel.

6.3.3.4 Factors affecting the retention of talented personnel in other professional fields related to public health should be studied to better understand the differences.

6.3.3.5 Since this research involved qualitative research, which has limitations with respect to the number of individuals in the study population, a quantitative study cannot be used in parallel. For further research, if the quantitative research is mixed, the research will be more reliable. In addition, if more areas are increased from only the northeastern areas to include all areas nationwide, the results of the study will be able to answer the question and clearly explain problems, which can result in effective problem solving.

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## **APPENDICES**

**APPENDIX A**

**INTERVIEW QUESTIONS**

## **INTERVIEW QUESTIONS**

### **1. Interview Question for Medical Professors of the new medical Schools in the Northeast**

- 1) Does the location of the medical school influence your current work?
- 2) Are you planning to further study? Or, have you planned opportunity at work?
- 3) Do you feel satisfied in your work?
- 4) The workload of responsible in organization affects consideration between quitting and continual working at your organization? And please explain.
- 5) Do you relate to this medical school? Why?
- 6) What factors make you continue working at the organizations?
- 7) What are the factors concerning the resignation of medical professors in the new medical schools?
- 8) What factors make you continue working at the organizations?

What are your opinions about the following issues (compensation, welfare, performance assessment systems, work characteristics, work environment and career path?)

- 9) What are your suggestions about the organization's personnel retention policy?
- 10) What will you suggest for the future management of new medical schools?

### **2. Interview Question for Administrators of the New Medical Schools in the Northeast**

#### **Organization Context**

- 1) In your opinion, how is the situation concerning medical professors' resignation within your organization?
- 2) Does your organization face a shortage of medical professors?
- 3) Are medical professors necessary for your organization? How?

4) What are the problems and causes of medical professors' resignation?

5) In your point of view, what factors make medical professors want to still work at your organization?

#### **Human Resource Management Policy Context**

1) What are the current concrete models pertaining to medical professors' retention at your organization?

2) Does your organization face problems and obstacles relating to the retention of medical professors? How?

3) What are the trends towards developing the management of talented personnel, e.g., medical professors? What are your suggestions and guidelines for the retention of such personnel, which are different from the traditional ones?

### **3. Interview Question for Qualified Personnel Relating to Medical Schools**

1) In your opinion, how is the situation concerning medical professors' resignation in Thailand?

2) Are medical professors necessary for New Medical Schools? How?

3) In your point of view, what factors make medical professors want to still work at New Medical Schools?

4) According to your view, how the role of the public sector, such as the ministry level and Medical Council should contribute to develop the issues and solve professors' turnover?

5) What are the trends towards developing the management of talented personnel, e.g., medical professors? What are your suggestions and guidelines for the retention of such personnel, which are different from the traditional ones?

**APPENDIX B**

**CERTIFICATE OF APPROVAL FOR HUMAN RESEARCH**

## CERTIFICATE OF APPROVAL FOR HUMAN RESEARCH



มหาวิทยาลัยอุบลราชธานี  
หนังสือฉบับนี้ให้ไว้เพื่อแสดงว่า

ชื่อข้อเสนอการวิจัย ภาษาไทย	การรักษาบุคลากรที่มีศักยภาพสูงของโรงเรียนแพทย์ใหม่ ในเขตภาคตะวันออกเฉียงเหนือ
ชื่อข้อเสนอการวิจัย ภาษาอังกฤษ	Talent Retention in New Medical Schools in the Northeastern Thailand.
รหัสข้อเสนอการวิจัย	UBU – REC – 33 / 2560
สังกัด	คณะรัฐศาสตร์
ผู้วิจัยหลัก	นางสาววิญญกิส รัชตะวรรณ
หมายเลขใบรับรอง	UBU – REC – 33 / 2560
วันที่ให้ใบรับรอง	30 ตุลาคม 2560
วันหมดอายุใบรับรอง	31 ตุลาคม 2561

ข้อเสนอการวิจัยดังกล่าวนี้ ได้รับการพิจารณาจากคณะกรรมการ  
จริยธรรมการวิจัยในมนุษย์ มหาวิทยาลัยอุบลราชธานีแล้ว คณะกรรมการ ฯ มีความเห็นว่า ข้อเสนอ  
การวิจัยที่จะดำเนินการ มีความสอดคล้องกับหลักจริยธรรมสากล ตลอดจนกฎหมาย ข้อบังคับและ  
ข้อกำหนดภายในประเทศ จึงเห็นสมควรให้ดำเนินการวิจัยตามข้อเสนอการวิจัยนี้ได้

(ผู้ช่วยศาสตราจารย์น้องเล็ก คุณวราดิศย์)  
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30 ต.ค. 2560

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