



A STUDY OF CRITICAL AREAS THAT MAY EXPERIENCE AGEING ACADEMICIAN SHORTAGE IN PUBLIC UNIVERSITIES, MALAYSIA

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ABSTRACT

The reduction in the supply of experienced senior academicians will have an impact on the country's education sector in critical study areas, thereby affecting the country's production of future generations that are skilled, innovative, high quality, and competent. Therefore, the objective of this study is to identify the critical areas that are facing academician shortages in public universities under the categories of research universities, focus universities, and comprehensive universities. Qualitative methods were used, particularly in-depth research with university registrars and data analysis using NVIVO software 12. The results showed that the critical areas are medicine, dentistry, pharmacy, engineering, law, architecture, surveying, creative industry management, hospitality management, and veterinary medicine.

Key words: critical fields, senior academicians, public universities, labour supply, and education sectors

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1. INTRODUCTION

Ageing is a phenomenon that is faced by every nation in the world. The main factor that contributes to population ageing is the reduction in the death rate, which is closely related to the increase in lifespan and the reduction in population fertility rate. Generally, labour reduction in the market is expected to happen from 2015 to 2035 as the baby boomers, the generations born two decades after World War II are retiring (Angeloni and Borgonovi, 2016). In Malaysia, the labour force born from 1946 to 1964 makes the biggest group of retirees that will exit the labour market. Most of these generations are working in public universities (Hashim and Wok, 2011). Based on the Malaysian Statistical Department, the population aged 60 and above has increased from 5.2 percent in 1970 to 6.3 percent in the year 2000, and it was projected to increase to 9.9 percent in 2020. Additionally, the number of the ageing population has increased twofold in twenty years (1970-1991) from 546,000 in 1970 to 1.03 million in 1991. Besides, it was projected that the ageing population would be increased twofold to 3.4 million in 2020 and 5.8 million in 2030. The increased ageing population, characterised by a population aged 60 years and above in 1990 to 2025, is seven to eight times in developed nations, such as in the United Kingdom and Sweden (Jabatan Perangkaan Malaysia, 2015). Looking at the demographic shift, the ageing labour force in Malaysia is increasing. Malaysia is currently in the third stage, and Malaysia still has 14 years before it reaches a stage where 15 percent of the national population reaches 60 years and above in 2030 (Leng, Swee, Khan, Vergara & Khan, 2016).

Meanwhile, a study by Kinsella and He (2009) and the United States Census Bureau (2014) has shown that Malaysia would be an ageing nation in 2020, as seven percent of the population will be 65 years and above. After it reaches 7 percent, the rate of the ageing population will accelerate and double to 14 percent in 2043, which is faster than other developed nations such as France, which took 115 years, and Sweden, which took 112 years to double from 7 percent to 14 percent. The education sector is one of the most important sectors that develop a nation by producing graduates who will work in other sectors. As stated by the Congress of Unions of Employees in the Public and Civil Services (CUEPACS, 2016), “*Professionals such as lecturers, these people possess specific expertise. If they let go of this expertise, the country will lose out*”. Thus, if such a phenomenon continues, this will reduce the supply of academicians in public universities, and Malaysia is forced to rely on non-local academicians, thereby causing the failure of the nation to produce future generations. At the same time, the percentage of the skilled labour force is still considered low at 28 percent compared to the developed nations. This will worsen the situation if the entire ageing population retires from the labour force within the year 2015 to 2035. Therefore, this study aims to research the fields that are experiencing academician shortage and retaining ageing their retirement age. This method is anticipated to reduce the issue surrounding the shortage of academicians in the national education sector.

2. LITERATURE REVIEW

To the best of the researchers' knowledge, there are limited empirical studies regarding fields that are facing a shortage of labour supply in public universities. A similar situation is also observed in studies involving developed and developing nations. Past studies often focus on the ageing population, their issues, and re-entering the workforce. For instance, Earl, Taylor, and Cannizzo (2017) studied labour force in the ageing population at public universities in Australia and reported that the senior individuals were encouraged to work even at their late age. Their study explored how age would form the attitude of these individuals and how Human Resources Management (HRM) manages this type of working force. An interview was conducted with twenty-two managers from the Human Resources Department of the universities and based on their findings, Australian universities had reportedly neglected the value of retaining ageing academicians in the universities. The department also neglected the potential and the performance of the ageing academicians based on the assumption that ageing academicians have a negative correlation with age. Most low-ranked institutions are prone to offering jobs to their ageing academicians; hence, the study found a shortage of policies in the universities to retain their ageing academicians. Besides, the employment of academicians depends on the aim and strategy of the institutions that will benefit them accordingly. The offer to retain ageing academicians also depends on their outstanding records, especially in their research performance. Usually, ageing academicians who failed to perform in their research areas would not be offered future employment.

Besides the study by Armstrong-Stassen and Cattaneo (2010), the percentage of ageing population joining the labour force in the context of developed nations is different according to each nation. In most European nations, the rate of labour entry comprising the ageing population is low. At the same time, the fertility rates are decreasing and, coupled with the increase in average lifespan, leading to an increase in the number of ageing population. The increasing population aged 65 years and above has also increased the liability rate of the nations. While the ageing population is considered a potential labour force, the decrease in labour force is expected to be recorded at 10 percent from the year 2020 until 2050. Besides, the ageing population involving 50 to 64 years old is expected to increase in 2050, representing the potential 32 percent of the labour force compared to the 25 percent of the potential labour force in 2000 (Kooij, Lange, Jansen & Dijkers, 2008). Further, it was expected that in 2050, one-third of the population of the advanced nations would reach 50 years old and above. This projection shows that the decrease in the labour force and the need to retain ageing workers have become a priority in advanced nations.

A study by Kaskie, Walker, and Andersson (2016) has shown that the labour force involving ageing academicians has become a relevant and crucial discussion point in outlining the policy of higher education in the United States. Additionally, large-scale formal studies on the policies and programs designed to retain the population of ageing academicians in higher education institutions in the United States have been conducted. For instance, one study found that human resources experts in 187 colleges and universities in the United States were indifferent and unconcerned about the ageing population involving academicians in the education sector. However, three out of eight campuses have worked on outlining policies and programs that target the ageing population, and this effort is mostly conducted in institutions with a high number of ageing academicians. The human resources department provides courses and training to their ageing academicians to increase their awareness regarding the issues among ageing academicians. Some studies have also looked into the entry of ageing academicians in private institutions and found that most of them are motivated to reenter the workforce due to financial factors and the desire to rejoin the service (Murthy, Abdullah, and Abdullah, 2020). For instance, based on a study by Murthy, Abdullah, and Abdullah (2019) in

the Malaysian context, several factors that influence the reentry of the ageing population into the workforce after retirement are age discrimination, working intention after retirement, health factors, and education level. Previously, the authors have also asserted that the contributions of ageing workers to the social and the economic elements of private universities are related to work and life balance, work experience, financial situation, and work environment that encourage their entry into the workforce in the context of Malaysia (Murthy, Abdullah, and Abdullah, 2019). Therefore, appropriate measures and ways to encourage the participation of the ageing workforce to remain contributing and working in the labor market are very important. According to Sim (2008), the ageing workforce in Malaysia is still healthy and active to continue working even after retirement. In fact, the retirement age in countries such as Singapore, India, and the Philippines ranges from 60 to 65 years.

Notwithstanding, studies on ageing academicians in higher learning institutions are limited; hence, more studies are needed to enlighten the interested parties regarding this issue. Therefore, this study aims to fulfill the crucial gap involving the limited studies on ageing academicians relative to the critical fields in Malaysian public universities.

3. DATA AND METHODOLOGY

This study used a qualitative approach through interviews to get an in-depth explanation of the critical fields that are facing understaffing issues. A pilot study was conducted to test the effectiveness of the interview questions to gather information. The samples were selected using thematic analysis through in-depth interviews and this method was chosen considering the lack of literature that contributes to field enrichment. Six (6) universities participated in this study under the categories of Research Universities (Universiti Malaya and Universiti Sains Malaysia), Focus Universities (Universiti Utara Malaysia and Universiti Malaysia Kelantan), and Comprehensive Universities (Universiti Teknologi MARA and Universiti Islam Antarabangsa Malaysia). The respondents interviewed in this study are the Registrars who have given detailed explanations to help the researchers gather crucial information regarding this issue. The interviews aim to unearth the information about the critical fields that are having an influx of ageing academicians in Public Universities. A combination of structured, semi-structured, and non-structured interviews was used in this study. After conducting the interviews, all information was assembled and processed using NVIVO software version 12. The best way of obtaining data is difficult, especially when the issue is sensitive and the questions are complicated (Mathers et al., 2002). In this study, the interview sessions are critical for obtaining the relevant information, views, opinions, and knowledge from the upper-level management of the universities to understand this issue clearly and systematically. All of the registrars also have sufficient experience to enlighten the researchers and their inputs are valuable for the development of the nation.

4. CONCLUSION AND IMPLICATIONS

This study has found that the critical fields that contribute to the development of a high-income nation are medicine, dentistry, pharmacy, engineering, law, architecture, and surveying, specifically in Universiti Malaya since these are science fields; hence, research in these fields is crucial for the development of the nation. Based on the findings, the engineering field is developing rapidly as seen from the inception of engineering campuses in USM. Apart from that, studies in the medical field in Malaysia are also crucial. Currently, USM is conducting numerous studies on cancer treatment even though studies related to cancer treatment have long been conducted. Additionally, the average age of workers in UM and USM is between 55 to 60 years old with about 300 academicians. The lack of academicians is also due to the turnover factor and the difficulties faced in replacing them.

Even though academicians with a doctorate receive numerous allowances provided by the universities, they are still keen to exit the government service and the main factor influencing their decision to choose private universities after retirement is the salary offer. Besides, some academicians also choose to serve at foreign universities as they were offered a huge bump in their salaries.

Meanwhile, according to the registrar in UUM, the fields of creative industry management and hospitality are experiencing a shortage due to insufficient experts with a doctorate. On the other hand, the critical field observed in UMK is architecture and according to the registrar, this issue was due to the difficulty in procuring candidates/academicians with a PhD. Most of the experienced academicians with substantial experience in the industry choose to work in private universities due to better salary offers compared to public universities. In UiTM, the critical fields identified are medicine, pharmacy, dentistry, and engineering, while UIAM experiences an academician shortage in medicine and dentistry fields. This information is important to obtain the number of active academicians who are still working in these critical fields so that a suitable and effective policy can be outlined to retain these academicians. Table 1 presents the respective critical fields identified in Malaysian public universities.

Table 1 The critical fields in Malaysian Public Universities

University	Critical fields
Universiti Malaya	<ol style="list-style-type: none"> 1. Medicine 2. Dentistry 3. Pharmacy 4. Engineering 5. Law 6. Architecture 7. Surveying
Universiti Sains Malaysia	<ol style="list-style-type: none"> 1. Medicine 2. Dentistry 3. Pharmacy 4. Engineering 5. Law 6. Architecture 7. Surveying
Universiti Utara Malaysia	<ol style="list-style-type: none"> 1. Creative Industry Management 2. Hospitality Management
Universiti Malaysia Kelantan	<ol style="list-style-type: none"> 1. Architecture 2. Veterinary
Universiti Teknologi MARA	<ol style="list-style-type: none"> 1. Medicine 2. Pharmacy 3. Dentistry 4. Engineering
Universiti Islam Antarabangsa Malaysia	<ol style="list-style-type: none"> 1. Medicine 2. Dentistry

5. SUMMARY AND SUGGESTIONS FOR FUTURE STUDIES

By using a qualitative method through an in-depth interview with the university registrars and selecting two public universities from each university category such as Universiti Malaya and Universiti Sains Malaysia to represent research universities, Universiti Utara Malaysia and Universiti Malaysia Kelantan to represent focus universities, and Universiti Teknologi

MARA and Universiti Islam Antarabangsa Malaysia to represent comprehensive universities, the researchers found that the critical fields that are experiencing academician shortage are medicine, dentistry, pharmacy, engineering, law, architecture, surveying, creative industry management, hospitality management, and veterinary.

The suggestion to increase the participation of ageing academicians in the critical fields of the Industrial Revolution 4.0 was made due to Malaysia's ongoing efforts in developing its growth in the respective fields. As the STEM approach highly concentrates on science, technology, and mathematics; the participation of the ageing academicians is crucial to maintain the teaching and learning of these subjects. Currently, the lack of experts in these fields with only 28 percent of the total workforce in Malaysia is a real issue as Malaysia highly depends on the local experts rather than foreign experts. Therefore, there is a need for a policy to be outlined at the Ministry level that allows the ageing academicians to remain in service in order to help produce the future supply of experts in Malaysia.

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