

The Push and Pull Factors Regarding Community Involvement in Lifelong Learning (LLL) in Selangor, Negeri Sembilan and Melaka

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Abstract--*This study aimed to identify the push and pull factors which influenced community involvement in lifelong learning (LLL). Some 305 LLL participants from polytechnics, community colleges and Open University Malaysia (OUM) were chosen as the study sample. In this study, the analysis factor method or the factor component analysis was utilised to assess whether an item could be categorised according to the same features such as measuring the same item as well as deleting items which were not relevant with the study. Previously, the Kaiser-Meyer-Olkin (KMO) test and the Bartlett Sphericity test were conducted to measure the significance of each item in the variables identified. The study findings showed that the factor analysis managed to extract 3 push factors : interest and attitude, family and friends which influenced the decision to enrol in lifelong learning. On the other hand, the factor analysis also managed to extract four pull factors : curriculum and teaching staff, career prospects, promotions and facilities which attracted community involvement in lifelong learning. The study also showed that the push and pull factors were all important in influencing community involvement in lifelong learning in Malaysia. The independent t-test findings also indicated that there was a significant mean score difference for the curriculum and teaching staff factor based on ethnicity.*

Key words--*lifelong learning, polytechnics, community colleges, factor analysis, push-pull factors.*

I. INTRODUCTION

A comprehensive and accurate LLL concept is rather hard to be defined although some researchers have attempted to do so such as Aspin & Chapman, (2000), Longworth & Davies (1996), Osborne & Morgan-Klein (2007) and Doukas (2010) as it involves multiple dimensions like education, society, economy and culture. Additionally, in certain countries, lifelong learning is viewed as informal adult education and is not related to higher education (Longworth & Davies, 1996; Candy et al., 1994). In the Malaysian context, LLL is usually viewed from the economic perspective. As such, LLL is defined as learning which involves the whole community regardless of gender, age, race and socio-economic background. These lifelong learners are between the ages of 15 to 64 years old and they do not follow formal learning such as the type conducted in schools, colleges and universities. As we already know, those who follow formal education in schools, colleges and universities have a target to graduate with a certificate, diploma or degree to enable them to get a job, while

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those who are 64 years and above are usually pensioners or those who are not working (Abdol Latif et al., 2012).

LLL was introduced in developed countries such as the United States and Germany in the 1980s due to the rapid growth of globalisation and technology as well as the changes which occurred to the job market and job characteristics. LLL was introduced in Malaysia in the new millennium to produce quality human capital who are able to face challenges in a global economy knowledge-based era. In line with that, the LLL agenda has been outlined in many government policies such as the Eighth Malaysia Plan (8MP) to the Eleventh Malaysia Plan (11MP), The Third Outline Perspective Plan (OPP3), Malaysia's Knowledge-Based Economy Master Plan (KEMP), The Malaysian National Higher Education Action Plan (NHEAP) and The Malaysian National Higher Education Strategic Plan (NHESP). For example, under the Malaysian National Blueprint (2011), the people were encouraged to actively get involved to help the economy prosper. In addition, LLL culture has been selected as the third pillar of the country's human capital development and its implementation has been conducted in formal and informal forms by many government bodies.

It is interesting to note that formal education at schools and higher education institutions are no longer sufficient to provide complete knowledge and skills for an individual to face global challenges in a fast-moving world (Ivanova, 2002). As such, the citizens as human capital whether they are workers, housewives, pensioners or the disabled should strive to update and upgrade their skills and knowledge to enhance their personal quality and competitiveness as well as being able to contribute to the well-being of the people and the nation. Additionally, in the 21st century, the initiative to continue one's education is no longer a choice, it's now a must (Buntat et al., 2013).

II. MOTIVATION OF THE STUDY

The growth of global economy these days is very much influenced by globalisation which is translated into interdependence between countries in trade, goods production and services. This interdependence between countries in trade and production is becoming more popular as the trade cost decreases due to the abolition of trade restrictions, rapid growth of ICT and decreasing transportation costs (Abdul-Aziz *et al.*, 2019; Abdul-Aziz & Zulkifli, 2017). The decreasing trade costs would cause the production of goods in a neighbouring country with cheaper and efficient resources to become more efficient. This has led many multinational countries especially those from Japan, the United States and Europe to build factories in other countries with cheaper resources. Investors also now focus more on the workers' education and skill levels before taking the decision to invest in another country.

As such, the Malaysian government has drafted up many plans and strategies to develop human capital in Malaysia as well as to cultivate a society with a first-class mind. One of the nation's most important agendas to fulfill this objective is via the LLL culture. Through NHESP, the Ministry of Higher Education has set four strategies to ensure that LLL would become the practice of the Malaysian society by 2020. The strategies include the upgrading of mechanism and infrastructure, increasing community This initiative by the Malaysian government has caused student enrolment into institutions which conduct LLL to increase yearly. Based on the statistics from the Malaysian National Blueprint (2011), student enrolment in LLL programmes in local universities in 2009 was 223,400. However, this increased to 483, 526 in 2013. This was 45 percent out of the

overall full-time local universities' intake for that year. According to Ali (2015), the increase in enrolment for the LLL programmes was due to globalisation and technology pressure factors which caused the society to feel the need to increase knowledge and skills to face the ever-challenging working world. Therefore, this study would look at the push and pull factors of student participation in the LLL programmes in Malaysia.

III. LITERATURE REVIEW

Before the 1980s, the public did not pay much attention to LLL. At that time, education was regarded as a means to acquire certificates to enable one to acquire a job. However, Knowles (1975) predicted that LLL would one day become the principle for the organisation of all education. Now it has become clear that LLL is becoming more important and it has emerged as the main challenge for a knowledgeable society in the future. As such, UNESCO has included LLL as one of the main issues in its plan. Additionally, the G7-G8 countries have also included LLL as the main strategy in the battle against unemployment. As for the Malaysian government, it has conducted many programmes to inculcate and empower LLL in the country as outlined in NHESP.

To ensure the effectiveness of LLL implementation, many important elements have to be focused on with lots of relevant adaptation. According to Cornford (2000), effective LLL can happen if the individual is taught on how to study and acquire informative effectively. As stated by Hargreaves and Shaw (2001), there is a need for a strong and innovative curriculum which takes into account aspects of new skills. They also emphasised on the need for trained teaching staff who would deliver curriculum content to the students in class. Additionally, the drafted curriculum should also include extensive information which covers the content and the study skills which should be acquired by the students in order to handle global challenges (Cornford 2000, Hargreaves & Shaw 2001). LLL also helps to inculcate a more meaningful education if it is able to combine learning with mastery of relevant new skills.

The development of sophisticated facilities like e-learning can help to encourage community involvement in LLL. Liao et al (2011) conducted a study on Taiwanese LLL students' attitude regarding web-based e-learning. The study findings indicated that the system function and the system response influenced the students' perception of LLL. Furthermore, the study also outlined the importance of attitude for the students themselves. The significance of the facilities factor in attracting interest and the community attitude towards LLL were also focused on in the study by Smidt and Sursock (2011) and Candy (1995). According to them, the facilities such as the ICT infrastructure could help the students to acquire information, becoming more independent students, more knowledgeable and more interested to continue their studies. Candy also stressed on the cultural structure factor and attitude as important factors.

Additionally, other factors also encouraged an individual to be involved in LLL. Some of them are interest and attitude. According to Ajzen and Fishbein (1991), interest was a factor which could encourage and push a person to change his/her attitude. As such, one would probably be doing an activity if he or she is very much interested in it. Haque *et al.*, (2015a) also stated that the interest for one to be involved in LLL usually comes from his or her intention to acquire more knowledge and skills. Sawar et al. (2016) also outlined the importance of the interest factor as a major push for an individual to take part in LLL programmes.

Ajzen et al. (2009) and Haque *et al.* (2015b) stated that an individual with a positive attitude towards something would usually be involved in the related activity. Everyone is different in his or her attitude as it depends on his or her beliefs on a particular issue. Attitude usually determines one's choice whether he or she can commit himself/herself on a particular activity or otherwise (Kim & Choi, 2005). Nowadays, the working culture has changed whereby workers need to be more flexible, more multitasking, knowledgeable, IT-savvy and business-smart. In other words, the working world now requires mastery of high and multiple skills. As such, a positive attitude towards the working world would encourage one to be involved in LLL to acquire new skills and knowledge (Chang *et al.*, 2012). The study also found that those with a positive attitude in their career activities would also have a positive attitude in LLL. A study by Sawar et al. (2016) on 210 staff members from various organisations in the Klang Valley found that attitude was one of the important factors in workers' involvement in LLL.

Previous studies also found that other factors such as employment opportunities, increase in salary and peer influence also affected community involvement in LLL especially those from the younger generation. For example, Houler (1988) stated that acquiring a job, peer influence, education and family background were all important factors which drove the younger generation to continue their education. Ting et al. (2015) also stated that salary increase and promotion, acquiring work opportunities and the intention to open small businesses were some of the factors which drove the individuals to take part in LLL programmes.

IV. METHODOLOGY

This study utilised questionnaires as an instrument in collecting data. The first section displayed questions related to student background and demographics. The second section displayed 39 questions related to factors which influenced community involvement in LLL in Malaysia. A 5-point Likert scale was utilised to acquire data about the level of respondents' agreement for each item. The alpha Cronbach item for each construct was between 0.827 and 0.968. The pilot study was also conducted at Politeknik Sultan Azlan Shah. The study sample was chosen randomly from formal LLL programme participants at community colleges, Polytechnics, and OUM. The sampling technique to be applied was the two-stage random sampling method.

The factor analysis method was utilised to find out whether the item could be categorised according to the same features such as measuring the same items while at the same time deleting items which were irrelevant with this study. The Principal Component Analysis was conducted on the items using the STATA software. The varimax rotation method was utilised to acquire a meaningful and interpretable factor. Thompson (2004) found that in most cases, the rotation of factors improved the interpretation by decreasing the obscurity in unrotated factors.

Before the factor analysis was conducted, the Kaiser-Meyer-Olkin (KMO) and the Bartlett Sphericity tests were conducted to measure the significance of each item in all the variable used. The variables in the study were considered significant if the value of $p < 0.05$ was achieved in the Bartlett Sphericity test and the KMO value exceeded 0.5. Generally, the values between 0.5 and 0.7 were normal, while the values between 0.7 and 0.8 were good. The values between 0.8 and 0.9 were considered very good (Field, 2007). Additionally, these two tests could assess whether factor analysis could be used for this study.

V. RESULTS

The empirical findings could be divided into 2 categories which were push and pull factors based on the Principal Component Factor Analysis (PCF). In this study, the 3 push factors were interest and attitude, family and friends. On the other hand, the 4 pull factors were curriculum and teaching staff, career prospects, promotions and facilities. The suitability of the factor analysis was tested with the KMO test and the Bartlett Sphericity test. In the end, the Cronbach Alpha was also taken into consideration showing reliability. All the factors showed good internal consistency and were considered reliable as all the factors had Cronbach Alpha coefficient exceeding 0.58 (Cortina, 1993, in Field, 2007). The findings showed that the KMO test results and the Sphericity Bartlett results for the push and pull factors were high at 0.925 and the significant statistical value showed that the factor analysis for the pull factors were appropriate to be carried out.

5.1 The Pull Factors

Based on Table 1, the factor analysis had identified 4 factors under the construct of pulling factors. The curriculum and teaching staff factor were the main factors. The three factors had been extracted from the Rotated Component Matrix and this meant that the matrix component had been tested twice. The relationship between each item with the factor could be shown with the loading factors.

Table 1: The loadings factor (Push and pull factors)

Item				Factor			
	Curriculum and teaching staff	Career prospects	Interest and attitude	Promotion	family	Facilities	Peer
s21	0.814						
s20	0.760						
s22	0.738						
s18	0.734						
s23	0.645						
s19	0.626						
s25	0.573						
s26	0.539						
s17	0.446						
s34		0.733					
s37		0.670					
s33		0.657					
s35		0.616					
s32		0.487					
s39		0.472					
s4			0.746				
s2			0.726				
s1			0.608				
s36			0.604				
s3			0.551				
s38			0.436				
s29				0.819			
s28				0.794			
s30				0.761			
s27				0.710			
s5					0.763		
s6					0.732		
s7					0.670		
s8					0.619		
s16						0.804	
s13						0.717	
s15						0.656	
s11							0.854

s12							0.845
s10							0.532
s9							0.472
% Variance							
% Cumulative	0.069						
	0.710						

The main factor for the pull factors were curriculum and teaching staff factors. There were 10 items which had high factor loadings for this factor. Items s21, s20 s22 and s18 had factor loadings more than 0.7. Meanwhile, items s23 and s19 had factor loadings more than 0.6. As for items s25, s26 and s17, they had factor loadings more than 0.4. Based on the variance value, the curriculum and teaching staff factor explained the push and pull factors as much as 15 percent and was the most important factor.

Four other items had high factor loadings in the second factor for the push factor. Items s21, s22, and s24 had factor loadings more than 0.7. Meanwhile, items s23, s30 and s29 had factor loadings more than 0.55. Additionally, items s25 and s28 had factor loadings more than 0.47. All the items were related with the perspective in career advancement when they took part in LLL. As such, the second factor could be named as the career prospect factor and this could explain the push and pull factors as much as 12 percent.

Four items had high factor loadings value in the third factor for the category of pull factors. Items Item s29 had factor loadings more than 0.8 while items s28, s30 and s27 had factor loadings more than 0.7. The third factor for the pull factor named as promotions factor could explain the push and pull factors as much as 10 percent.

The fourth factor for the pull category is the facilities factor which was made up of 4 items. Item s16 had factor loadings more than 0.8 while item s13 had factor loadings more than 0.7 and item s15 had factor loadings more than 0.6. The facilities factor explained the push and pull factor as much as 7 percent.

5.2 The Push Factors

Based on Table 4.1, the factor analysis identified 3 factors under the construct of push factors which were identified as the interest and attitude factor, family and friends. The first factor for the push factor category was the interest and attitude factor which had 6 items. Items s4, s2, s1, and s36 had factor loadings more than 0.6. As for items s3 and s38, they had factor loadings more than 0.4. Based on the variance value, the interest factor could explain the push and pull factors as much as 11 percent.

Items which had a high relationship with the second factor for the push category s5, s6, s7 and s8 with factor loadings more than 0.6. the factors were named as family factors as they comprised items related to the influence and support from parents and family members to take part in LLL. Based on the variance value, the family factor influenced the push and pull factors as much as 9 percent and this was the third most important factor after interest and attitude.

Items which had a high relationship with the third factor for the push factor were items s9, s10, s11 and s12 with factor loadings more than 0.4. These factors were named as the peer factor as they comprised

items which were related with influence/encouragement and support from friends to take part in LLL. Based on the variance value, the family factor influenced the push and pull factors as much as 7 percent and this was the third most important factor after interest and attitude and family.

To measure the difference in mean scores for the main factor which was the curriculum and teaching staff based on gender, the mean score for curriculum and teaching staff for male students and female students would be compared. This was done by testing the null hypothesis H_{01} : there was no difference in mean score for the curriculum and teaching staff factor between male and female students, opposing H_{a1} : there was a mean score difference for the curriculum and teaching staff factor between the male students and female students. To measure the difference in mean score for the curriculum and teaching staff factor based on ethnicity, the same would be done whereby the null hypothesis H_{02} stated : there was no difference in mean scores for the curriculum and teaching staff factor for the Bumiputera students and non-Bumi students, while the opposing H_{a2} stated : there was a mean score difference for the curriculum and teaching staff factor for Bumiputera students and non-Bumiputera students. Meanwhile, for the null hypothesis H_{03} : there was no mean score difference for the curriculum and teaching staff factor between the students with a high socioeconomic status and low socioeconomic status, opposing H_{a3} : there was a mean score difference for the curriculum and teaching staff factor between the students with high socioeconomic status and low socioeconomic status ; the students in both groups would be tested to see if there was a difference in mean scores for the curriculum and teaching staff factor based on socioeconomic status. Lastly, H_{04} : there was no mean score difference for the curriculum and teaching staff factor between the students with high education background and those with low education background; opposing H_{a2} : there was a mean score difference for the curriculum and teaching staff factor for students from high education background and those from low education background.

Based on the t-test results in Table 2, H_{01} , H_{03} dan H_{04} failed to be rejected as their p-values were significant at a meaningful level of 1%. This showed that there was no significant mean score difference for the curriculum and teaching staff factor based on gender, socioeconomic level and education level. However, based on t-test results in Table 2, H_{02} was rejected as the p-values were significant for the curriculum and teaching staff factor based on ethnicity. This showed that there was a significant difference in mean scores for the curriculum and teaching staff factor based on ethnicity. This meant that the Bumiputera ethnic put more emphasis on the curriculum and teaching staff aspect as the main reason why they took part in LLL programmes based on non-Bumi ethnic groups.

Table 2: Analysis of Independent t-test on the Curriculum and Teaching staff factor based on Gender, Ethnicity, Socioeconomic and Education background

Independent variable		N	Mean	Standard deviation	t	P-value
Gender	Male	116	4.371	0.638	0.946	0.345
	Female	139	4.309	0.463		
Ethnicity	Bumiputera	287	4.355	0.558	1.980	0.049
	Non-Bumiputera	18	4.092	0.632		
Socioecono	High	119	4.399	0.542	1.384	0.167

mic	Low	186	4.307	0.578		
Education background	High	24	4.379	0.597	0.332	0.739
	low	281	4.339	0.563		

VI. CONCLUSION AND DISCUSSION

This study aimed to identify the push and pull factors for students' participation in LLL programmes in Selangor, Negeri Sembilan and Melaka. The findings indicated that all the pull factors (curriculum and teaching staff, career prospects, promotion and facilities) and push factors (interest and attitude, family and peer influence) played an important part in influencing student participation in LLL. However, the curriculum and teaching staff factor was the most important factor in influencing student participation in LLL in the relevant institutions. Additionally, the findings also showed that the Bumiputera ethnic emphasised more on curriculum and teaching staff to influence them to participate in LLL programmes compared to non-Bumi ethnic groups.

Based on the findings, the relevant authorities should review and revamp the existing curriculum to fulfil the current needs and requirements. In line with that, the curriculum designed in LLL should take into account elements of skills and knowledge, self-esteem and acceptance of lifelong values. A curriculum based on memorisation of facts with a pass-fail philosophy should be upgraded whereby the examination conducted was a small part of the learning process. With this strategy, individual failure could be avoided and substituted with an upgrade in self-esteem. Additionally, one could make full use of technology whereby the advances in information technology, computer and multimedia should be combined in order to provide a more independent and open learning process. so that the learning process could become more effective and efficient

Additionally, involvement from the industry is also important in curriculum design so that the designed curriculum could fulfil the current industry requirements. As efficient and competent teaching staff is very important to drive more people to join LLL, training for the teaching staff should be given for the pre-service and in-service staff with the cooperation of other training institute. To achieve this, the management in LLL institutions should have planning related to the upgrading of skills and knowledge for the teaching staff continuously. Additionally, improvement in the curriculum and efficiency and competency for the teaching staff should be conducted in order to attract non- Bumi participants to take part in the LLL programmes as their participation in LLL programmes is limited compared to the Bumiputera participants.

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