THE ROLE OF HIGHER LEARNING INSTITUTIONS IN DEVELOPING B40 & M40 COMMUNITIES LIVING NEAR HIGHER EDUCATION INSTITUTIONS

JS Keshminder[1], Nurshamshida Md Shamsudin[2], Mohd Syuhaidi Abu Bakar[3], Wan Nor I'zzah Wan Mohamad Zain[4], Roziah Mohamad Janor[5], and Siti Aekbal Salleh[6,7*]

[1]Faculty of Business & Management,
[2]Faculty of Education,
[3]Faculty of Film, Theatre & Animation,
[4]Faculty of Medicine,
[5]Faculty of Computer Science and Mathematics,
[6]Faculty of Architecture, Planning, and Surveying,
[7]Institute for Biodiversity and Sustainable Development, Universiti Teknologi MARA, Selangor, Malaysia.

Abstract

Higher learning institutions have often led to community development. The interactions and strategic partnerships of higher learning institutions profoundly affect the social status of the B40 and M40 communities. This study employed a mixed-methods approach involving site observation and a survey questionnaire to investigate the role of higher learning institutions in enhancing the socio-economic status of the local community. This focused on the aspects of improved public transportation and facilities; development in the areas around the campuses; propelling business and services; knowledge building; income generation and employment creation. A stratified sampling technique was used to collect data from four UiTM campuses within Selangor State. The findings indicate that all the aspects were highly attained, given the positioning of the higher learning institutions, which were near the residential areas. The study suggests that collaboration between the local authorities and the state government is needed to improve the ways university-community partnerships can stimulate societal progress.

Keywords: Higher learning institutions, university-community partnership, social development, socio-economic development, UiTM Selangor Campus

Introduction

Higher education institutions (HLIs) are often thought to facilitate economic and social development. Modern economic growth theories have acknowledged the positive relationship between human capital and economic development (Agasisti & Bertoletti, 2020). Theories of economic development, whether referring to social or economic development, have often emphasized that resources, human capital development, and innovation are significant development factors for both society and the economy (Ranis & Fei, 1961). Investment in tertiary education and the expansion of higher education opportunities have been among the key regional development policies in most countries, including Malaysia.

Higher learning institutions play a crucial role in producing an educated community, which is vital in the modern context of knowledge-based economics and for developing the regional economy (Bramwell & Wolfe, 2008). The importance of universities can be explained by the rapid increase in their number compared to the early period of Malaysia's independence. This increase explains why the current economy now urgently needs a highly educated community to meet the demand for highly knowledgeable and skilled workers. The country is now driven by a productivity-based economy. Human capital development through education and training has become a critical indicator of the availability of knowledgeable and skilled human resources in a particular place (Kruss et al., 2015). Therefore, as one type of higher education institution, the university plays a vital role in influencing the availability of human capital and the competitive advantage that can be generated in a particular location when a university campus is built.

Goddard and Chatterton (2003) noted that one of the most noteworthy contributions to regional development derives from the capacity of universities to join territorial features, whether this involves transportation, local development, or nearby residents' income. Inside an institution, profitable synergies exist between teaching, science, and community service. There are connections in the area between expertise, creativity, and culture. The essence of a university's contributions to human resource programs is intensely politicized, with power over its courses and purpose relating to its underlying administration framework. However, it is still vital to establish well-positioned universities since they make substantial contributions to their local economies (Arbo & Benneworth, 2007). Therefore, higher learning institutions contribute significantly to improved public transportation and facilities, development in the areas around the campuses, propelling business and services, knowledge building, income generation, and employment creation.

In the case of Malaysia, the development of branch campuses of Universiti Teknologi MARA (UiTM), mainly in peri-urban areas, has been instrumental in developing the lower-income households living in these peri-urban or rural areas, which are classified as the B40 income group

(Abd Rahman et al., 2019). In Malaysia, B40 represents the bottom 40% of income earners while M40 refers to the middle 40%. New higher learning institutions have played a significant role in developing the B40 and M40 communities in Malaysia. Besides providing the best education for students, institutions under the Ministry of Higher Education and other government-linked agencies have supported reskilling and upskilling programs for youths and unemployed workers in their local communities. These initiatives have benefited the communities by raising income levels among the B40 and M40 groups and accelerating Malaysia's economic development.

Even though the link between HLIs and regional economic development has been explored in previous studies (Abd Rahman et al., 2019; Bramwell & Wolfe, 2008), studies in the Malaysian context are limited. This lack of emphasis has hampered the identification of the role HLIs play in developing the socio-economic status of the B40 and M40 communities. Addressing this gap, this paper discusses the role of higher education institutions, specifically UiTM campuses in Selangor (UCS), in developing the B40 and M40 communities. A mixed-methods research approach was used for the study. Data were collected using a survey questionnaire and observation. Descriptive statistics and observation data were used to present the findings and thereafter to discuss the role of UCS in uplifting the economic status of those living in the areas surrounding the campuses.

The remainder of the paper is organized as follows: Section 2 reviews the roles played by HLIs in promoting socio-economic development. Meanwhile, Section 3 presents the methodology used in the study. Then, Section 4 presents the findings and discussion, and the last two sections provide potential policy implications and the conclusion, respectively.

Literature Review

The Bottom 40% and Middle 40% Income Groups

According to the income group classification by the Department of Statistics Malaysia, B40 refers to the bottom 40 percent of all income earners, and M40 refers to the middle 40 percent of all income earners. The last group is the top 20 percent of all income earners, which is referred to as T20. Figure 1.0 shows the threshold for each income group; each of the thresholds is further divided into sub-tiers.

Using aggressive economic development policies, the Malaysian government has undertaken various activities to improve citizens' socio-economic mobility, intending to move households from the B40 income group into the M40 group and move those in the M40 bracket into the T20 group. The purpose of developing UiTM campuses across Malaysia in peri-urban and rural areas was to provide education to the least-privileged and uplift the socio-economic status of the communities living around each campus. As the UiTM campus projects encourage the

development of businesses surrounding the campus and provide entrepreneurial opportunities to the B40 community living in those areas, it can be concluded that the UiTM branch campuses help the economy to grow (Simon, 2012).

Group		Median	Average	Income Range
B40	B1	RM1,929	RM1,849	Less than RM2,500
	B2	RM2,786	RM2,803	RM2,501 – RM3,170
	B3	RM3,556	RM3,561	RM3,171 – RM3,970
	B4	RM4,387	RM4,395	RM3,971 – RM4,850
M40	M1	RM5,336	RM5,346	RM4,851 – RM5,880
	M2	RM6,421	RM6,477	RM5,881 – RM7,100
	M3	RM7,828	RM7,841	RM7,101 – RM8,700
	M4	RM9,695	RM9,730	RM8,701 – RM10,970
T20	T1	RM12,586	RM12,720	RM10,971 – RM15,040
	T2	RM19,781	RM24,293	RM15,041 and above

Figure 1: Malaysia Income Group Classification
Source: Department of Statistics Malaysia

In Malaysia, the differences in household income between and within states are mainly due to two factors, urbanization and human capital (Khazanah, 2018). More urbanized states or areas with highly skilled human capital record higher income levels. UiTM has played an essential role in urbanizing and increasing the human capital skill sets among those living where the campuses are located. Based on Figure 2.0, it is evident that B40 and M40 household incomes experienced vast growth between 1970 and 2016. In 1970, the B40 household group's mean income was 10.3% of the mean household income of the T20 group. The mean household income for the B40 had increased significantly by 2016 compared to the T20 group's mean household income, reaching 17.7%. Similarly, the M20 group showed an impressive increase in mean household income compared to the T20 mean household income from 1970 to 2016, recording 29.4% and 40.4% at the start and end of the period, respectively.

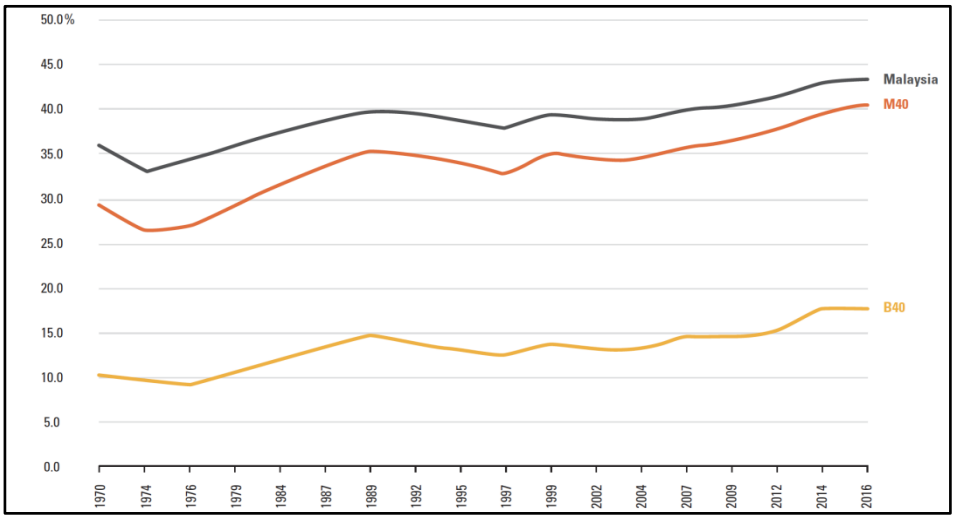

Figure 2: B40 and M40 mean household income as a share of T20 mean income, 1970 – 2016
Source: Adopted from Khazanah (2018)

In 2016, the then Prime Minister Dato Sri' Najib Razak expressed the view that UiTM had contributed to the community and economic development. According to him, UiTM had led to national social mobility and the promotion of social equality. The Malay and Bumiputera, who are primarily part of the B40 community, were able to improve their living standards, which had considerably transformed the Malaysian economic landscape (Bernama, 2016).

In improving the B40 and M40 communities' socio-economic status, higher learning institutions have played a significant role. These institutions have either directly or indirectly promoted various factors (see Figure 3.0) that have contributed to the socio-economic development of the community living near each campus.

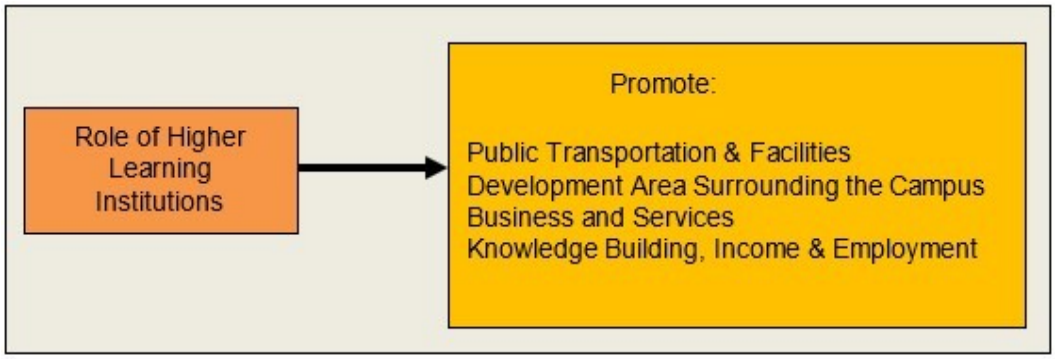

Figure 3: Role of Higher Learning Institutions

Improved Public Transportation & Facilities

Higher Learning Institutions (HLI) play a positive role by offering better transportation and other facilities to their surrounding communities. Improving or creating new strategies to address issues related to these features can be highly valuable to the adjacent surroundings. While universities have long been deemed to have the aptitude to promote local community expansion positively, it is unclear which outlook individual universities (including UiTM) should assume. The landscape surrounding universities is constantly changing. However, colleges, such as the University of Arizona offer diverse transportation incentives to decrease the traffic flow within its neighboring communities (University of Arizona, 2019).

One example of university-community engagement through transportation is the railway system leading to the MetLife Stadium in New York (MetLife Stadium, 2019). For events estimated to attract over 50,000, the Meadowlands Rail service opens up to offer fans the choice to park away from the stadium. However, they still have direct access to the stadium (MetLife Stadium, 2019). This is an alternative mode of transportation that increases the well-being of and reduces the ecological impacts on, the surrounding communities.

The establishment of higher learning institutes and their branch campuses has helped communities increase their access to academic and technical training and utilize various facilities, especially those related to sport, information technology, lecture halls, and others (Grapragasem et al., 2014). Teaching hospitals and dental clinics have been established, which has benefited the university's local community and expanded the students' insights into community health problems through their learning, service, and research in the community, thus improving community health (Atuyambe et al., 2016).

Besides, Roma Tre University has worked on a sustainable mobility plan in collaboration with Rome's Municipality. This has been effective in reducing the usage of private vehicles in favor of collective forms of transportation. The scheme provides sustainable modes of transportation, such as collaborative public transportation. To further embrace low-carbon communities, bicycles, hybrid bikes, as well as carpooling and car-sharing applications, are provided in higher education institutions (Papantoniou et al., 2018).

Development of Areas Surrounding the Campus

According to Mbah (2016), a university's effectiveness cannot be restricted to how effectively it runs its learning and study plan and how this transforms into it becoming a leader of social change within the context of its community accountability and revolutionary purpose. Interconnections across the university's community may expand the institution's capacity to improve local growth. This should be achieved for both aspects of the university, as well as for the broader population.

The prevailing ideology of a university trailing knowledge for its own sake must also focus on people's developmental concerns for their surrounding community. Universities must pursue an academic agenda, be involved in improving local living conditions, and work for the ordinary people living around them (Mbah, 2016). Therefore, universities must consider the urban growth that results from changes to a community's physical, emotional, fiscal, and environmental circumstances (Christenson & Robinson, 1989). Institutions may play a critical role in facilitating democratic development by encouraging a participatory model of democracy, as well as allowing the expression of the needs of the various university stakeholders and enabling various community parties to discuss shared issues (Ostrander, 2004).

Universities and colleges are frequently regarded as vital agents in a city's land development plans (Cortes, 2004). Furthermore, the development of university campuses influences the development of residential areas. University campuses are often strategically located within city centers, which potentially increases rental occupancy rates. Housing developers often scout for factors that enable them to increase house prices. Therefore, developing properties close to university campuses pushes prices higher due to the university-community partnership (Ambrosius et al., 2010). Another reason for residential areas to build a university campus is that they can stimulate business expansion in the surrounding area. This, in return, automatically inflates the property prices and makes the possession of local housing more attractive.

Propelling Business and Services

Once a university campus is established in an area, it automatically contributes to business development. Massive university complexes bring with them the multiple needs of the students and staff, requiring various businesses to cater to their demands. Furthermore, universities have often stimulated growth in high-tech industries and the development of "smart zones", like in Silicon Valley (MIT) and the Research Triangle Park (Duke University) in the United States (Cortes, 2004), while they often improve a city's image (Bromley & Kent, 2006). Barbato et al. (2019) suggested that university research and community engagement stimulate local demand for knowledge-intensive services.

The increased population, especially of students, automatically increases the demand for various products. Businesses are often keen to locate their premises in areas populated by students because the proprietors are confident that they will receive continuous interaction. Students are highly dependent on external parties to fulfill their needs as they are far from home and out of their comfort zone.

Knowledge Building, Income, and Employment

Higher learning institutes play an essential role in the development of skilled and knowledgeable human capital. These institutes can provide education that can accommodate greatly diverse individual qualifications, motivations, expectations, and career aspirations (Jongbloed et al., 2008). The establishment of higher learning institutes has reduced local student migration to overseas institutions and attracted international students to study at local institutions (Garrido-Yserte & Gallo-Rivera, 2010; Grapragasem et al., 2014). Higher learning institution partnerships with communities can develop interventions and programs that embrace both scientific and technological education and local experience (Lewis et al., 2016).

Universities may play a visible role in fostering economic development because schooling has come to be regarded as a personal right, intended to pave the way for other modes of social involvement, as well as offer the advantages of individual choice, appropriate employment, wealth, and social prestige (Spiel et al., 2018). As a result, universities continue to recruit and buy locally, investigate the commercialization of their studies, and participate in the wider community's long-term economic growth strategies. In a university-industry relationship, corporate transactions can be quantified, goals can be established, and social values can be communicated more comfortably to local business representatives and public officials (Dubb et al., 2013).

The development of universities does not just provide employment and entrepreneurial opportunities to the B40 community. University development also plays a vital role as they are the leading producers of scientific knowledge and new technologies. The development of universities can become a source of the ideas and human resources needed to launch a new business (Trifonova et al., 2020). Besides that, the development of universities also leads to better services in the surrounding communities. Government capital is often directed at supporting universities in the ways they serve the local community's needs and educational demands, as well as improving the regional economy and social conditions (Secundo et al., 2017).

The locations of the UiTM campuses are strategically determined so that besides nurturing human capital, they transform underdeveloped areas into advanced townships and cities. UiTM, one of the largest universities in Malaysia, has successfully transformed many rural areas into urban and industrial zones, primarily in Selangor (Azazi *et al.*, 2018). Developing entrepreneurial graduates has always been the core aim of UiTM. This has assisted the growth of new business ventures and knowledge transfer, thus helping to improve the livelihoods of the low-income communities living near the campuses. However, no single study has yet captured the aspect of socio-economic development that UiTM has contributed. Therefore, this study investigated the four aspects of development that HLIs can potentially propagate: (1) Public transportation and facilities (Theme 1), (2) development near the campus areas (Theme 2), (3) propelling business and services (Theme 3), and (4) knowledge building, income generation, and employment creation (Theme 4). These

aspects also align with UiTM's mission to enhance the knowledge and expertise of the Bumiputera (Abdullah et al., 2020).

Methodology

Table 1: Operational Definitions of Variables

Variables	Operational Definitions
Improved Public Transportation & Facilities	The development of the UiTM campus is helping to improve public transportation and other facilities surrounding the campus area.
Development of Area Surrounding the Campus Area	The development of the UiTM campus is an impetus for the development of residential areas surrounding the campus.
Propelling Business and Services	The development of the UiTM campus increases the business activities surrounding the campus
Knowledge Building, Income and Employment	The development of the UiTM campus heightens the knowledge capital, employment opportunities and income surrounding the campus.

A mixed-methods approach was used for the study, whereby a quantitative research technique was used for the descriptive survey research, while a qualitative research technique, primarily site observation, was used to triangulate the quantitative findings. The survey questionnaire used for data collection was adapted from the institution's instrument (UiTM). UiTM has developed a survey questionnaire to assess the impact of the university establishments on the surrounding communities. The operational definitions of the variables are presented in Table 1.0. The study population was the community living around the UiTM Cawangan Selangor (UCS) facilities, consisting of four UiTM branch campuses, namely UiTM Puncak Alam Campus, UiTM Puncak Perdana campus, UiTM Dengkil campus, and UiTM Sg. Buloh campus. Each respondent was the head of the household, that is, a family senior member and the principal earner in the family. The unit of analysis for the study was the head of the household.

For the sample selection, first, the total number of houses within a five-kilometer (population) (N) radius of each UCS campus was manually calculated. Communities living closer to the campuses experienced a more significant trickle-down effect of the expansion and development once the branch campuses were built. Therefore, attention was given only to the houses closest to the campus. The total number of houses was 200 units. Next, a sample size calculator from

SurveyMonkey[1] was used to calculate the sample size. The sample size required was 102 (heads of household) (population size = 200, confidence level = 85% and margin of error = 5%). A random sampling technique was used for data collection. Of the 200 respondents, only 156 respondents returned the survey and the response rate was 78%. After treating the data for missing values, only 112 responses were suitable for analysis.

Table 2: Online Survey Questionnaire Items

No	Items
Theme 1: Improved Public Services	
1.	*The existence of UiTM has a positive impact on the level of public transport services around the campus (buses, taxis, rental cars etc.)*
2.	*The public facilities provided have been enhanced to facilitate the use of the residents here*
Theme 2: Development Surrounding the Campus Area	
1.	*The existence of UiTM, in general, has influenced development around the campus*
Theme 3: Propelling Business and Services	
1.	*More businesses and services are opened to meet the needs of UiTM citizens*
2.	*The growth of business (commercial) companies around residential areas originally depended heavily on the existence of UiTM / ITM*
Theme 4: Knowledge Building, Income and Employment	
1.	*The existence of UiTM has increased the tendency of teenagers/youth in the surrounding area to increase knowledge*
2.	*The existence of UiTM has increased the income of the residents in the surrounding area*
3.	*The existence of UiTM has increased employment opportunities in the surrounding area*

A guided online survey on Google Forms was used for data collection. The hired enumerators engaged with each head of household face-to-face to explain the purpose of the survey. They then shared the survey link with the respondent (via WhatsApp/email) and assisted them to answer the online survey if necessary. The online survey questionnaire consisted of five demographic-related questions and eight items to gauge the impact of the UiTM campuses on the households surrounding the campuses. The nine items were clustered based on 4 themes (see Table 2.0). The four themes are improved public transportation and facilities (Theme 1), development in the areas around the campuses (Theme 2), propelling business and services (Theme 3), as well as knowledge building, income, and employment (Theme 4). Themes 1 and 3 consist of two items each, theme 2 consists of one item, and theme 4 consists of three items. Each item was assessed on a five-point

[1] Website: https://www.surveymonkey.com/mp/sample-size-calculator/

Likert scale, with 1 referring to strongly disagree and 5 referring to strongly agree. The Cronbach's alpha value obtained for the scale was 0.851, indicating that the scale was reliable.

Data analysis for the study used frequency analysis and descriptive analysis. SPSS software version 26 was used to conduct the analysis. The total mean score was used for the data interpretation. According to Rubin (2004), interpreting a five-point Likert scale necessitates the use of equal-sized categories. Mean scores lower than 2.33 (5-1/3+lowest var (1) were deemed low, scores with the highest value (95)-(5-1/30) were considered to be high, while scores lying between the two were deemed moderate. Mean scores of 1.00-2.33 were regarded as low impact while a range of mean scores between 2.34 and 3.66 was considered to reflect a moderate impact. Lastly, scores of 3.67-5.00 were considered to reflect a high impact.

For observation, each researcher was responsible for one branch campus (a total of four branch campuses were under UCS). The researchers' task was to observe the development that had occurred close to each campus and record the types of businesses operating in these areas. McKechnie (2008) indicated that observation is a meaningful way of collecting data using one's senses which, in the case of this study, involved looking. Before the observation, a list of aspects that required observation was prepared. During the observation, the researchers observed predetermined elements and took field notes.

Results and Discussion

Respondents Demographic Information

The demographic profile of the respondents is presented in Table 3.0. The response rate was 78% (156 /200). From the responses, only 112 responses were suitable for analysis (n = 112). The UiTM Puncak Alam and UiTM Puncak Perdana campuses recorded the highest cumulative response rates. These campuses have more registered students than the other two UCS campuses. Therefore, the responses from the former two campuses contributed substantially to the study, as these campuses are located close to each other, and higher population densities and more businesses surround them than surround the other two. The respondents were 53.6% male and 46.4% female. Among them, 72.3% were married, 25.9% were single, and 1.8% were either divorced or separated. Interestingly, all the respondents had completed their university/college and secondary school education. In total, 82.1% of them had completed their university or college education, and the rest had completed their secondary education. UiTM lecturers might be among the 82.1% of the respondents who had completed university as most of them live near the campuses.

In terms of the income distribution, 43% of the respondents fell under the B40 income group. The highest rates were those in the B1 and B2 sub-tiers, with 17.9% and 16.1%, respectively. The

income range for tier B1 was less than RM2,500, and for tier B2 it was between RM2,501 and RM3,170. The M40 income group, comprised about 37% of the respondents, with those in sub-tiers M1 (10.7%) and M4 (16.1%) being the two largest segments of the group. Sub-tier M1 accounted for those with incomes between RM4,851 and RM5,880 and sub-tier M4 referred to those with incomes between RM8,701 and RM10,970. Lastly, 20.5% of the respondents were from the T20 income group.

Table 3: Respondents' Demographic Information

Demographic	Frequency (n=112)	Percentage (%)
Campus		
Puncak Alam	40	35.7
Puncak Perdana	55	49.1
Dengkil	11	9.8
Sungai Buloh	6	5.4
Gender		
Male	60	53.6
Female	52	46.4
Marital Status		
Married	81	72.3
Single	29	25.9
Divorced/Separated	2	1.8
Education		
University/College	92	82.1
Secondary School	20	17.9
Income Group		
B1	20	17.9
B2	18	16.1
B3	3	2.7
B4	7	6.3
M1	12	10.7
M2	7	6.3
M3	4	3.6
M4	18	16.1
T1	11	9.8
T2	12	10.7

UiTM's role in developing the B40 and M40 Communities

Based on the findings, the first item in the improved public transportation and facilities theme (see table 4.0) exhibited a total mean score of 4.03. The mean score is high, indicating that the existence of UiTM has a positive impact on the level of public transport services around the campuses. This

includes public transportation like buses, taxis, and rental cars. The influx of students and university staff living near the campuses increases the demand for public transport in the local area. Furthermore, this increased demand has also led to improved roads and more efficient public transport services.

The next item under this theme assessed whether the public facilities provided had been enhanced to facilitate residents' use. The mean score for this item was 3.57, which represents a moderate improvement. Besides public transport, other public services, such as healthcare are under construction. Once the UiTM hospital is functional, the UCS community will benefit tremendously since there are no public hospitals near any branch campuses except UiTM Sungai Buloh. The new hospital will cater to the community, especially those living near the UiTM Puncak Alam and Puncak Perdana campuses. Shortly, when the UiTM hospital is fully functional, more investment is expected to flow into the local area. Assessing the second item again in the future may produce a higher score.

Table 4: Improved Public Transportation and Facilities

Response	Frequency (N=112)	Percentage (%)	Skewness	Kurtosis	Mean	Std. Deviation
Item 1: *The existence of UiTM has a positive impact on the level of public transport services around the campus (buses, taxis, rental cars etc.)*						
Strongly Disagree	2	1.8				
Disagree	8	7.1				
Neutral	6	5.4	-1.324	2.149	4.03	.885
Agree	65	58.0				
Strongly Agree	31	27.7				
Item 2: *The public facilities provided have been enhanced to facilitate the use of the residents here*						
Strongly Disagree	5	4.5				
Disagree	15	13.4				
Neutral	23	20.5	-.636	-.215	3.57	1.071
Agree	49	43.8				
Strongly Agree	20	17.9				

Note: The skewness and kurtosis are still within the recommended range of ± 3 (Klien, 2011)

Past studies have emphasized that the development of a university campus leads to an improved transportation system. Transportation is an integral part of campus life for most students at higher education institutions. The Munich Metropolitan Area (MMA) is embarking on becoming a more polycentric urban region due to the development of nearby higher learning institutions. There have been changes in transportation flows around Munich. One of these emerging centers is in the town of Garching, which hosts a large campus attached to Munich's Technical University. This may

indicate that workplaces and the need to attend university are the main driving forces behind Munich's emerging polycentric structure (Bentlage et al., 2020).

The second theme examined was the development of the area around each campus (see Table 5.0). The item in this theme was to determine whether the existence of UiTM has, in general, influenced development around each campus. The mean score for this item was 3.95, which represents high development. Therefore, UCS has had a significant impact on the local development that the community has experienced. Considerable development has been in the real estate sector. Residential property has taken a quantum lead in these areas and local house values are rising. Besides residential property, business parks have also expanded, bringing retail stores closer to the community. There are better facilities like parks, malls, and sports complexes so the community can engage in leisure activities alongside the developments.

Table 5: Development in the areas around the Campuses

Response	Frequency (N=112)	Percentage (%)	Skewness	Kurtosis	Mean	Std. Deviation
Item 1: *The existence of UiTM, in general, has influenced development around the campus*						
Strongly Disagree	1	.9				
Disagree	11	9.8				
Neutral	3	2.7	-1.308	2.020	3.95	.837
Agree	75	67.0				
Strongly Agree	22	19.6				

Note: The skewness and kurtosis are still within the recommended range of ± 3 (Klien, 2011)

The third theme explored how far UCS has propelled business and services in the surrounding communities (see Table 6.0). With a mean score of 3.88, the first item assessed whether more industries and services had opened to meet the needs of those connected to UiTM. From the high score, it is evident that the growth of businesses depends highly on citizens from the campus. UiTM campuses have large pools of students. For UCS specifically, the total number of students registered as of June 2020 was 28,865. Therefore, UCS supports business growth and economic development within the localities. Based on observation, there is massive demand from the students for products and services from the following businesses:

i. Maintenance and repair of motor vehicles
ii. Mini markets
iii. Convenience stores
iv. Retail sales of computers, computer equipment, and supplies
v. Retail sales of telecommunication equipment
vi. Retail sales of household furniture
vii. Retail sales of books, newspapers, and stationery

viii. Retail sales of sports goods and equipment
ix. Restaurants
x. Fast-food restaurants, food stalls/hawkers
xi. Laundering and dry-cleaning, pressing

The second item under a similar theme assessed whether the growth of commercial businesses around residential areas originally depended heavily on the existence of UiTM / ITM. The mean score for this item was 3.42, which indicates moderate dependence. While UiTM contributes somewhat to the commercial business in the localities, most retail businesses were located in the peri-urban areas due to the lower operational costs. Rental rates and wages are relatively lower in these areas. Even though UCS facilities are not located in urban areas, they are located strategically in regions that connect to major highways, port facilities, commercial business parks, and warehouses. These are the reasons for the business companies to operate there.

Table 6: Propelling Business and Services

Response	Frequency (N=112)	Percentage (%)	Skewness	Kurtosis	Mean	Std. Deviation
Item 1: *More businesses and services are opened to meet the needs of UiTM citizens*						
Strongly Disagree	2	1.8				
Disagree	12	10.7				
Neutral	9	8.0	-1.068	.926	3.88	.941
Agree	64	57.1				
Strongly Agree	25	22.3				
Item 2: *The growth of business (commercial) companies around residential areas originally depended heavily on the existence of UiTM / ITM*						
Strongly Disagree	8	7.1				
Disagree	17	15.2				
Neutral	19	17.0	-.732	-.279	3.42	1.096
Agree	56	50.0				
Strongly Agree	12	10.7				

Note: The skewness and kurtosis are still within the recommended range of ± 3 (Klien, 2011)

The final theme examined the knowledge building, employment creation, and income generation capacity of UCS facilities (see Table 7.0). The first item determined whether the existence of UiTM has increased the tendency of teenagers or youths in the surrounding area to increase their knowledge. The high mean score of 3.79 indicated that UCS has been instrumental in terms of its knowledge-building capacity. UCS has motivated teenagers and youths to increase their knowledge and achieve excellent academic performances to pursue their higher education at university. Higher learning institutes can provide education and qualifications to individuals and raise motivations, expectations, and career aspirations (Jongbloed et al., 2008). UiTM students

actively organize community engagement programs with schools in the areas near the campuses. There is also an extensive industry-community network that each faculty in UiTM manages. The networks are used to engage with various industries so both parties can work with the community, especially the underprivileged.

The next item within the same theme examined whether the existence of UiTM had increased the income levels of residents in the surrounding areas. The mean score of 3.88 strongly indicates that UCS has assisted such households to earn more. Economic development that occurred near the campuses has provided employment and entrepreneurial opportunities to the community. The employment opportunities item connects to the last item in the theme. This item measured whether the existence of UiTM has increased the employment opportunities in the surrounding areas. Based on the mean score of 3.63, its respondents moderately agreed that UCS facilities have created employment opportunities. It is evident that employment creation exists; however, it is still lacking.

Table 7: Knowledge Building, Income, and Employment

Response	Frequency (N=112)	Percentage (%)	Skewness	Kurtosis	Mean	Std. Deviation
Item 1: *The existence of UiTM has increased the tendency of teenagers/youth in the surrounding area to increase knowledge*						
Strongly Disagree	1	.9				
Disagree	6	5.4				
Neutral	28	25.0	-.576	.541	3.79	.821
Agree	58	51.8				
Strongly Agree	19	17.0				
Item 2: *The existence of UiTM has increased the income of the residents in the surrounding area*						
Strongly Disagree	8	7.1				
Disagree	17	15.2				
Neutral	19	17.0	-.865	.923	3.88	.846
Agree	56	50.0				
Strongly Agree	12	10.7				
Item 3: *The existence of UiTM has increased employment opportunities in the surrounding area*						
Strongly Disagree	1	.9				
Disagree	14	12.5				
Neutral	26	23.2	-.516	-.192	3.63	.910
Agree	55	49.1				
Strongly Agree	16	14.3				

Note: The skewness and kurtosis are still within the recommended range of ± 3 (Klien, 2011)

Research implications and recommendations

The development of the university campus has provided the right impetus to developing the B40 and M40 communities. Universities have long-held social responsibilities, which have in some way emphasized their responsibility for educational, cognitive, labor, and environmental impacts

by linking society's needs at different levels and creating activities aiming to achieve high sustainability (Thanasi-Boçe & Kurtishi-Kastrati, 2021). Continuous commitment by the university contributes to improving the quality of life of the local community and society at large. In return, constant development in the surrounding communities assists the universities in re-engineering their existing performance systems and generating an environment of collaboration with industry and government (Secundo et al., 2017), thus creating a symbiotic environment for all parties: the universities, communities, industries, and government.

The synergy between the university and community development is deeply rooted in a university's mission and vision. For example, African higher learning institutions recognize their role in, and contribution to, promoting active community participation, specifically to uplift poor and marginalized communities. The list below details several African higher learning institutions and their missions.

1. Kafrelsheikh University has the mission to provide services to the community, as well as applied research services that enhance the local community's visibility and contribute to constructing the knowledge economy.
2. Alexandria University emphasizes the building of a modern human being and society's cultural rehabilitation.
3. The University of KwaZulu-Natal has the mission to critically participate with society.
4. Covenant University has the mission to create knowledge and restore the dignity of the black man.
5. The University of Nairobi hopes to provide quality university education and training and embody the aspirations of the Kenyan people.

Government legislation has been the prime factor influencing universities to drive the growth and development of society. For example, legislation in Tunisia and Morocco requires universities to bridge the job skills gaps in the community. Responding to the call by the government, the University of Tunis El Manar, Tunisia, provides training and disseminates vital information to the community (Vasudeva & Mogaji, 2020). Based on the input obtained from poverty-stricken countries, it can be concluded that university campus development is vital for community development, especially among the B40 and M40 groups. The development of university campuses can improve public services, increase economic activities and motivate youths to obtain higher education qualifications.

However, to ensure effective community development, it is recommended that the government thoroughly study a location before establishing a new campus. By understanding the geography and community of a place, the government can create suitable facilities and university courses. This would automatically provide better-targeted community development. Advancing the

understanding of community needs and undertaking more applied research to find solutions to local problems would improve the university's role in developing the B40 and M40 communities.

For campuses that are already operational, universities must engage in more community research and translate the research output into practical ideas to develop the community. For instance, the translation of primary research findings can be scaled up into practical action, since communicating the research findings to the surrounding would contribute to boosting the university's image. This would automatically attract more university-industry partnerships, leading to more business development. Furthermore, community-university engagement motivates youths to pursue higher education

In addressing sustainable development goals (SDGs), a higher learning institution could form a cohesive community relations committee with representatives from across campus and the community. They could quickly build a page on a website that explicitly states how groups can reach a higher learning institution and form collaborations. This university-wide change proposal is an inherently complex activity and will involve input and cooperation from relevant stakeholders. Where necessary, higher learning institutions should employ an arbitrage strategy. It is hoped that implementing such a strategy would allow higher learning institutions to implement sustainable and engaging measures that encompass each institution's knowledge ecosystem (Delaney & Horan, 2020). Additionally, such collaborative engagement should allow the sharing of experience; reviews, and the integration of theoretical and practical knowledge; active engagement in ongoing experimentation; and strategic and systemic thinking (Coghlan et al., 2019).

Conclusion

Higher learning institutions can contribute to the knowledge economy and local socio-economic development wherever a university campus is built. Too few studies have examined UiTM's role in developing the B40 and M40 communities living near the branch campuses. To bridge this gap, the current study investigated the role of UiTM Cawangan Selangor (UCS) in developing B40 and M40 households. Using a mixed-methods approach via a survey instrument and observation, this study utilized four sub-themes, namely public transportation and facilities (Theme 1), development in the areas around the campuses (Theme 2), propelling business and services (Theme 3), as well as knowledge building, income generation, and employment creation (Theme 4) to investigate the role of UCS.

The study found that UCS has played several significant roles in assisting the development of B40 and M40 households: first, by improving the public transportation services; and second, by increasing development in the areas around the campuses in terms of residential properties and

avenues for leisure activities like parks, malls, and sports complexes. Next, UiTM citizens provide a considerable demand for goods and services, which has helped businesses flourish. Lastly, UCS has enhanced the knowledge-building capacity among youths and teenagers living near its campuses. Several other factors were found to moderately affect nearby households and lead to, for instance, employment creation, higher household incomes, and improvements in other residential facilities.

Based on the findings, it is evident that UCS plays a critical role in developing the communities living in the areas around the campuses. However, UCS is still considered new and more time is required for the trickle-down effect to become fully apparent throughout the community. The efforts of UCS to increase knowledge among youths and teenagers via community engagement programs must be intensified as these have a positive spillover effect. As UiTM increases its student intake to achieve its 200,000-enrolment target, it will automatically stimulate local demand and allow businesses to reap the benefits. It has been an astute policy to build campuses in peri-urban areas to uplift the socio-economic status of nearby B40 communities. Local governments must cooperate with UiTM branch campuses to provide shared facilities like sports complexes, local libraries, and others that can benefit UiTM students and the surrounding community; this would also indirectly promote knowledge transfer. Future studies might consider expanding the sample size, which is the main limitation of this study. Also, other development indicators could be included to measure the trickle-down effect beyond the five-kilometer radius of each university campus.

Acknowledgments

The study was supported by Universiti Teknologi MARA (UiTM) under the Bestari Research Grant (600-RMC/DANA 5/3/BESTARI (TD) (003/2019)) for a UiTM 20-year Impact Study. The authors would like to thank UiTM for its financial assistance.

References

Abdullah, A., Mohd Janor, R., Tuan Mat, T. Z., Mohamadd, N., & Mohd Noor, Z. (2020). *Determinant Factors of UiTM Graduates' Performance. International Journal of Innovation, Creativity, and Change, 13*(3), 1071–1089.

Abd Rahman, N. A. S., Ridzuan, M. R., Kong, L. K., & Ju, S. Y. (2019). The impact of UiTM Raub campus upon local economy: A study on students' expenditure. *Gading Journal for the Social Sciences*, *22*(00), 93–96.

Agasisti, T., & Bertoletti, A. (2020). Higher education and economic growth: A longitudinal study of European regions 2000–2017. *Socio-Economic Planning Sciences*, 100940.

Ambrosius, J. D., Gilderbloom, J. I., & Hanka, M. J. (2010). Back to black… and green? Location and policy interventions in new neighborhood housing markets. *Housing Policy Debate*, *20*(3), 457–484.

Arbo, P., & Benneworth, P. (2007). Understanding the regional contribution of higher education institutions: A literature review. In *OECD Education Working Paper*. OECD. https://doi.org/https://doi.org/10.1787/161208155312

Atuyambe, L. M., Baingana, R. K., Kibira, S. P. S., Katahoire, A., Okello, E., Mafigiri, D. K., Ayebare, F., Oboke, H., Acio, C., & Muggaga, K. (2016). Undergraduate students' contributions to health service delivery through community-based education: A qualitative study by the MESAU Consortium in Uganda. *BMC Medical Education*, *16*(1), 123.

Azazi, N.A.N., Ahmad, H. and Jusoh, H. (2018), "Higher Education Institutions in Developing Experience Economy)", *E-Bangi*, Vol. 15 No. 5.

Bank, L., & Sibanda, F. (2018). Universities as city-builders: The city-campus development opportunity in East London–Buffalo City, South Africa. *Development Southern Africa*, *35*(5), 701–715.

Barbato, G., Fumasoli, T., & Turri, M. (2019). The role of the organizational dimension in university positioning: a case-study approach. *Studies in Higher Education*, 1–15.

Bentlage, M., Müller, C., & Thierstein, A. (2020). Becoming more polycentric: public transport and location choices in the Munich Metropolitan Area. *Urban Geography*, 1–24.

Bernama. (2016). *"UiTM changes Malay, bumi communities" soci0-economic landscape'*.

Bramwell, A., & Wolfe, D. A. (2008). Universities and regional economic development: The entrepreneurial University of Waterloo. *Research Policy*, *37*(8), 1175–1187.

Bromley, R., & Kent, R. B. (2006). Integrating beyond the campus: Ohio's urban public universities and neighborhood revitalization. *Planning, Practice & Research*, *21*(1), 45–78.

Christenson, J. A., & Robinson, J. W. (1989). *Community development in perspective* (1st Ed.). Iowa State University Press.

Coghlan, D., Shani, A. B. R., & Hay, G. W. (2019). Toward a social science philosophy of organization development and change. In *Research in organizational change and development*. Emerald Publishing Limited.

Cortes, A. (2004). Estimating the impacts urban universities on neighborhood housing markets: An empirical analysis. *Urban Affairs Review*, *39*(3), 342–375.

Delaney, K., & Horan, C. (2020). Implementing UN Sustainability Development Goals Through Engagement within University Communities of Practice. *European Conference on Knowledge Management*, 149–XVIII.

Dubb, S., McKinley, S., & Howard, T. (2013). *The anchor dashboard: Aligning institutional practice to meet low-income community needs*. Democracy Collaborative.

Eichler, M. (2007). *Consensus organizing: Building communities of mutual self-interest*. Thousand Oaks, Sage Publications.

Garrido-Yserte, R., & Gallo-Rivera, M. T. (2010). The impact of the university upon local economy: three methods to estimate demand-side effects. *The Annals of Regional Science*, *44*(1), 39.

Goddard, J. B., & Chatterton, P. (2003). The response of universities to regional needs. In R. Rutten, F. Boekema, & E. Kuijpers (Eds.), *Economic Geography of Higher Education: Knowledge Infrastructure and Learning Region* (pp. 19–41). Routledge.

Grapragasem, S., Krishnan, A., & Mansor, A. N. (2014). Current Trends in Malaysian Higher Education and the Effect on Education Policy and Practice: An Overview. *International Journal of Higher Education*, *3*(1), 85–93.

Jongbloed, B., Enders, J., & Salerno, C. (2008). Higher education and its communities: Interconnections, interdependencies and a research agenda. *Higher Education*, *56*(3), 303–324.

Khazanah. (2018). *The State of Households 2018: Different Realities*. http://www.krinstitute.org/assets/contentMS/img/template/editor/FullReport_KRI_SOH_2018.pdf

Klien, R. B. (2011). *Principles and Practice of Structural Equation Modeling* (3rd ed.). The Guilford Press.

Kruss, G., McGrath, S., Petersen, I., & Gastrow, M. (2015). Higher education and economic development: The importance of building technological capabilities. *International Journal of Educational Development*, *43*, 22–31.

Lehmann, E. E., Meoli, M., Paleari, S., & Stockinger, S. A. E. (2020). *The role of higher education for the development of entrepreneurial ecosystems*. Routledge.

Lewis, L. A., Kusmaul, N., Elze, D., & Butler, L. (2016). The role of field education in a university–community partnership aimed at curriculum transformation. *Journal of Social Work Education*, *52*(2), 186–197.

Mbah, M. F. (2016). Towards the idea of the interconnected university for sustainable community development. *Higher Education Research & Development*, *35*(6), 1228–1241.

McKechnie, L. E. F. (2008). Observational research. In Given, L. M. (Ed.), The Sage encyclopedia of qualitative research methods (pp. 573–577). Thousand Oaks, CA: Sage.

MetLife Stadium. (2019). *Public Transportation*. New Your JETS. https://www.metlifestadium.com/getting-here/public-transportation

Ostrander, S. A. (2004). Democracy, civic participation, and the university: A comparative study of civic engagement on five campuses. *Non-profit and Voluntary Sector Quarterly*, *33*(1), 74–93.

Papantoniou, P., Vlahogianni, E., Yannis, G., Attard, M., Mora, P. V., Diaz, E. C., & Lancero, M. T. T. (2018). Investigating Mobility Gaps in University Campuses. *The 4th Conference on Sustainable Urban Mobility*, 378–385.

Ranis, G., & Fei, J. C. H. (1961). A theory of economic development. *The American Economic Review*, 533–565.

Rubin, D. B. (2004). *Multiple imputations for nonresponse in surveys* (Vol. 81). John Wiley & Sons.

Secundo, G., Perez, S. E., Martinaitis, Ž., & Leitner, K. H. (2017). An Intellectual Capital framework to measure universities' third mission activities. *Technological Forecasting and Social Change*, *123*, 229–239.

Simon, K. (2012, August 7). UiTM branch to be built to spur economic growth for Raub community. *Water*.

Spiel, C., Schwartzman, S., Busemeyer, M., Cloete, N., Drori, G., Lassnigg, L., Schober, B., Schweisfurth, M., & Verma, S. (2018). The contribution of education to social progress. In *International Panel on Social Progress, (ed.) Rethinking Society for the 21st Century: Report of the International Panel for Social Progress* (pp. 753–778). Cambridge University Press. https://doi.org/10.1017/9781108399661.006

Thanasi-Boçe, M., & Kurtishi-Kastrati, S. (2021). Social responsibility approach among universities' community. *Journal of Enterprising Communities: People and Places in the Global Economy*.

Trifonova, N. V, Khutieva, E. S., Proshkina, A. S., Irina, L. B., & Gunkova, P. I. (2020). Entrepreneurial Ecosystems of the Leading Universities. *International Session on Factors of Regional Extensive Development (FRED 2019)*, 266–270.

University of Arizona. (2019). *Arizona Football Parking Info*. University of Arizona.

Vasudeva, S., & Mogaji, E. (2020). *Paving the way for world domination: analysis of African universities' mission statement*.