



INTERNATIONAL JOURNAL OF ACADEMIC RESEARCH IN PROGRESSIVE EDUCATION & DEVELOPMENT



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ISSN: 2226-6348

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To Link this Article: <http://dx.doi.org/10.6007/IJARPED/v10-i3/10844>

DOI:10.6007/IJARPED/v10-i3/10844

Received: 14 June 2021, **Revised:** 18 July 2021, **Accepted:** 30 July 2021

Published Online: 21 August 2021

In-Text Citation: (Mohamad et al., 2021)

To Cite this Article: Mohamad, W. N., Aziz, N. A. A., Mahyideen, J. M., Idris, N. A., & Vijayarajoo, A. R. (2021). Local Economic Impact of a Public University: An Analysis of a Multi-Campus University. *International Journal of Academic Research in Progressive Education and Development*, 10(3), 739–751.

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Vol. 10(3) 2021, Pg. 739 - 751

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Local Economic Impact of a Public University: An Analysis of a Multi-Campus University

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Abstract

Today, the role of higher institutions of learning on the social and economic development of the communities surrounding them, cannot be understated. This paper focuses on assessing the economic impact by UiTM Negeri Sembilan campuses on their local communities. UiTM Negeri Sembilan is a multi-campus university that has three campuses in the same state differing in location and population size, and are managed mainly through a centralised administrative system, with a certain degree of local campus autonomy on certain aspects. The respondents comprised of business owners, managers, and workers from 62 local business establishments surrounding the University campuses. The findings show that all three campuses have impacted their local economy positively in terms of gross income to local businesses in varying degrees. UiTM Seremban recorded the highest impact due to its largest population and its urban location. This suggests that all campuses support the growth of businesses and the economic development within the local communities. The results contribute the knowledge that not all multi-campus universities would have the same impact on the local community. Despite the same administration, the same policies, yet the economic impact may not be the same showing the major factors influencing are location and student/staff population.

Keywords: Economic Impact, Local Community, Higher Institutions, Multi-Campus University, Social Development

Introduction

Higher institutions of learning play increasingly significant roles in present day society. They are seen not only as centres of transmitting knowledge and research but also in the economic sectors locally, regionally and at national levels. In recent years, considerable attention in the

research literature has on the economic impact of universities to their local communities, as opposed to merely the transmission of knowledge and research. This new focus illustrates the importance of this new field of contribution by universities. Steenhuis and Gray (2006) viewed higher institutions as important engines of economic growth of their local communities where their presence has impacted the local economy. Adding to the literature on economic contribution, Valero and Van Reenem (2019) explored the link between the university and economic growth. The findings showed that there was a positive association with increases in economic growth of the region where the institutions were located.

Beck, Elliott, Meisel and Wagner (1995) defined economic impact as *“the difference between existing economic activity in a region given the presence of the institution and the level that would have been present if the institution did not exist”*. As highlighted by Pallenberg (2005), the economic impact of a university could be categorized into different categories such as employment at the university, income and the expenditure of the university, income and expenditures of the universities' employees and businesses generated by the university. On the other hand, Stokes and Coomes (1998) classified universities' economic impact into two types namely, impact upon knowledge and impact upon local expenditures. Parsons and Griffiths (2003) pointed out that the economic impact of a university upon local economy could be direct, indirect or induced. Pastor, Pérez and Guevara (2013) stressed that the role of universities on economic development of their local communities is very significant. The researchers pointed out that universities contributed short-term and long-term economic benefits on surrounding communities.

UiTM Negeri Sembilan is a public multi-campus university that has three campuses. A multi-campus university is one with three or more campuses and managed mainly through a centralised administrative system, with a certain degree of local campus autonomy on certain aspects. The aim of this paper is to assess the economic impact of UiTM Negeri Sembilan campuses on their local communities. Since these campuses are not homogeneous but vary in location and population size, this paper also investigates whether different campuses give a variance to the local economic impact. Thus, this paper answers questions such as 'Does the existence of UiTM campuses have a significant impact on the local economy?', 'Do the three different campuses give a different impact on local businesses?' and 'If there are differences in the economic impact, what are the factors that contribute towards this?' The focus of this paper is on local economic impact driven by direct expenditure of the university, staff, students, and visitors. The data was obtained solely from business owners, managers and workers of local businesses operating nearby the University campuses. This new focus illustrates the importance of this new field of contribution by universities and the fact of looking at multi-campus universities, which have not been explored much before.

Establishment of Universiti Teknologi MARA (UiTM) Negeri Sembilan Branch

UiTM Negeri Sembilan is the largest public university in the state of Negeri Sembilan. As shown in Figure 1, Negeri Sembilan lies on the western coast of Peninsular Malaysia. It comprises three campuses namely Seremban Campus, Kuala Pilah Campus and Rembau Campus. These campuses are located in different districts of Negeri Sembilan. However, they share a common administration governed by a Rector and assisted by a Deputy Rector of Academic Affairs and a Deputy Rector of Student Affairs. These campuses offer various undergraduate programs in a wide variety of fields but adopt the same university vision: that is, to establish UiTM as a globally renowned university of science, technology, humanities,

and entrepreneurship. Presently, the campuses have a collective population of 11375 students and 778 staff members. The focus of this study is to investigate the impact of these campuses towards the local economic growth. The locations of these campuses are presented in Figure 2.



Kuala Pilah Campus

Kuala Pilah Campus is the main and the oldest campus of UiTM Negeri Sembilan. It is situated in Beting, that is 8.7 km from Kuala Pilah town and 46.4 km from Seremban City. Covering an area of 80 acres, this campus was officially in operation on 1 June 2009. It currently offers 9 programmes within the Faculty of Applied Science and another 4 programmes offered by The Academy of Contemporary Islamic Studies, The Faculty of Computer Science and Mathematics, The Faculty of Sports Science and Recreation and The Faculty of Business and Management. With a total enrolment of 2449 students, more than 80 per cent of this figure stay in university hostels while approximately 20 per cent stay off-campus as non-residents. At present, the campus has 285 staff members.

Seremban Campus

The Seremban Campus of Universiti Teknologi MARA Negeri Sembilan is located in Seremban 3 which is only 3.35 km away from Seremban City, 0.95 km to Seremban 2 town and 1.79 km to Rasah town. The construction of this 38-acre campus started on January 19, 2011 and was completed on 19 January 2014. There are 3 faculties in the Seremban campus namely the Faculties of Administrative Science and Policy Studies, Computer Science and Mathematics and finally, Sports Science and Recreation. These three faculties offer 17 programmes. This campus has the highest student enrolment with 5895 students where more than half of total enrolment or 55.34 per cent are non-residents. Majority of these non-residents' students are renting rooms or houses that are located close to the campuses.

Rembau Campus

The Rembau Campus is located at Pilin, a small town which is 0.48 km away from Rembau town, 11.92 km from Lubuk Cina, Melaka and 23.45 km away from Seremban City. It is the newest campus of UiTM Negeri Sembilan. This campus spans over 32.4 hectares and was officially operational on February 1, 2017. Currently, it offers 6 programmes through its three faculties: Faculty of Communication and Media Studies (FKPM), the Faculty of Information Management (FPM) and the Faculty of Business and Management (FBM). 3031 students are currently enrolled in this campus. Of these students, approximately 85 per cent stay in the university hostels. Currently, the campus has 158 staff members.



Figure 2: Location of Campuses

Rationale of the Study

Institutions of higher learning can greatly impact their surrounding communities directly and/or indirectly. Many studies on the local economic impact of higher institutions have been in foreign settings. To date, there is limited research done in Malaysia exploring the direct link between university presence and the local economic performance. Therefore, this study explores this aspect, on whether the University has impacted local businesses. Hence, this study intends to address the following research objectives:

Research objective 1: To assess whether the existence of the Negeri Sembilan UiTM campuses have a significant impact on the local economy.

Research objective 2: To determine whether there is a statistical difference in local economic impact between these three campuses and the corresponding local businesses.

Overview on The Economic Impact of Higher Learning Institutions on the Local Community

The application of impact studies on the establishment of higher learning institutions on the local community has been the subject of extensive studies. Many studies have reported that higher learning institutions have the capability to contribute towards the development of the economy of the surrounding communities. For instance, Ohme (2003) replicated a previous impact study conducted in 1999 to examine the full impact of expenditure by students and

staff of Delaware University on its community and state. It was found that the presence of the University of Delaware continued to bring benefits not only to its surrounding communities but also to the state as found in the 1999 study. This was attributed to the outcomes from direct and indirect spending effects. Local businesses have been found to receive the most benefits from the existence of the university and thus the key success factor of their business.

Deviating from previous studies, Steinacker (2005) conducted a study on the economic impact of a small urban college on its surrounding community. The results of the study showed that the presence of even a small college had a significant impact on its surrounding community. Khatibi (2015) examined the effects of universities on economic, cultural, and social development in the Hamadan province of Iran. The results showed that the highest impact was on urban development which included cultural development (55.97%), followed by social development (54.84%), and economic development (43.6%).

Saleh, Hashim, Nayan, Mohamad and Ngah (2013) studied the socio-economic impact of establishment of the Sultan Azlan Shah Campus (KSAS) and Universiti Pendidikan Sultan Idris (UPSI). The findings of the two studies suggested a rise in the economic status of the population particularly in terms of business opportunities and property values. Placing higher learning institutions in certain locations can act as a nucleus that brings development and changes to various economic and social functions (Morshidi, Hassan, Moha & Norizan, 2002; Fauziah, 2007; Roziah & Mohd Nazip, 2007).

Cunha et al. (2013) examined the impact of the existence of the Polytechnic Institute in Portugal to their surrounding community. Their findings showed that the existence of the Polytechnic Institute had increased the economic activity as well as the local GDP in the more deprived regions, demonstrating the greatest values. Garrido-Yserte and Gallo-Rivera (2010) used three different methods to evaluate the impact of the University of Alcalá, in Spain, upon its local economy. The findings showed the presence of the university resulted in positive economic impact to local businesses where the areas that experienced bigger impact were those that were situated closer to the university. The establishment of colleges and universities have also had a great influence on the local community in terms of income and expenditure flow. Higher income is generated through their spending on local goods and services. Employment opportunities can be provided through educational and research activities. Economic activity has a ripple effect on the local economy as the economic sector continued to respond to increased demand for goods and services (Othman et al., 2010). Ehinmowo and Eludoyin (2010) have researched the impact of the establishment of Adekunle University Ajasin, in Southwest Nigeria on the local community in Akungba Akoko. Their study found that the establishment of the university directly or indirectly had given employment opportunities to the community, increasing marketing and business activities while creating commercial activities.

The conceptual framework of this research is shown in Figure 1.

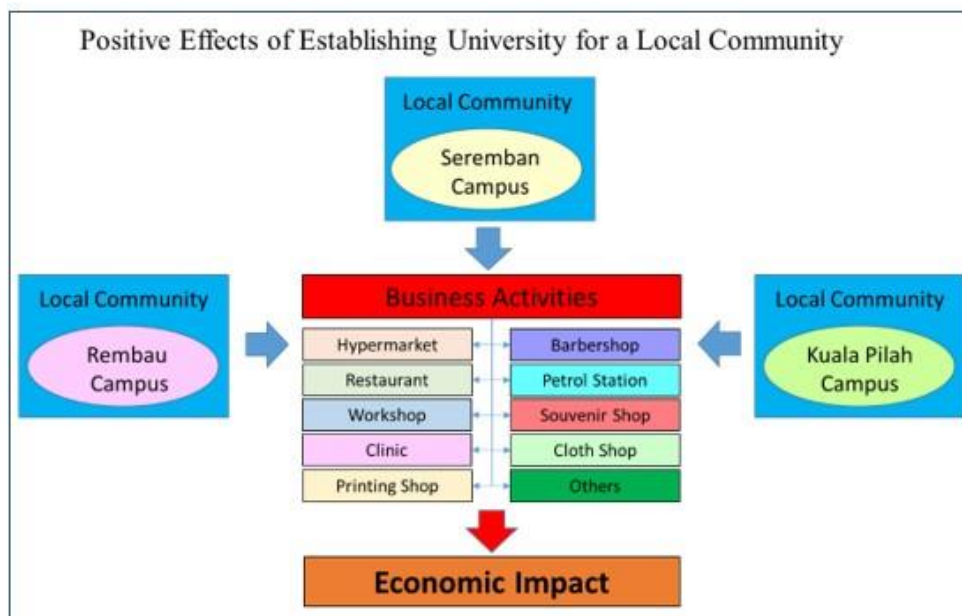


Figure 1: Conceptual Framework

The presence of UiTM Negeri Sembilan, through its three campuses, may have an economic impact on its local communities. The direct effect corresponds to the direct spending of the institution, staff and students for goods and services in the local area in 10 categories of business activities namely: hypermarket/grocery shops, restaurant/fast food outlets, workshops, clinics, printing shops, barbershops, petrol stations, souvenir shops, cloth shops and others. Local businesses can take advantage from the students and staff spending to a new business venture and maintain their business in the long run. These spending patterns is an important driver towards a profound effect on local business sustainability.

Methodology

This study was carried out in Negeri Sembilan. The data were collected through face-to-face interviews using a structured questionnaire distributed to the owners and workers of the businesses located nearby the three campuses, namely Seremban Campus, Rembau Campus and Kuala Pilah Campus. The questions were designed to assess the economic impact of these three campuses on their local communities. Descriptive analysis such as table and graphical presentation were used to present the results. Clustered bar chart was used to present the estimated percentage company's gross income earned from business nearby UiTM and stacked bar chart was used to compare the impact of campuses upon local businesses. Analysis of Variance (ANOVA) were conducted to determine whether there was a significant difference in gross income obtained (due to the presence of UiTM campuses) by local businesses operated around the three campuses. In addition, multiple comparison was tested to help identify which campuses where the local businesses are significantly different in term of gross profit.

Results and Discussion

The questionnaires were administered to business owners, managers and workers from 62 small and medium-sized businesses surrounding the University campuses where 20 businesses were located in the vicinity of the Seremban Campus while 21 businesses were

located near the Kuala Pilah and Rembau Campuses. The majority of the businesses (85.48 per cent) were small-sized businesses while the remaining (14.52 per cent) were medium-sized businesses. Types of businesses operated by respondents are listed in Table1.

Table 1: Types of Businesses Operated by Respondents

Type of business	Percentage
Grocery Shop/hypermarket	16.13
Restaurant/Fast Food	48.39
Workshop	3.22
Clinic	3.22
Printing shop	12.90
Barbershop	4.84
Petrol Station	1.63
Souvenir Shop	1.63
Cloth Shop	1.63
Others	6.41

To investigate the economic impact of the campuses on the local businesses, the respondents were asked to answer the question, ‘Does the presence of the UiTM campus help your businesses to grow?’. Figure 1 shows a vast majority of the respondents (91.94 per cent) stated that the UiTM campus had a positive effect in helping their businesses to grow. All the respondents (100 per cent) in Seremban admitted that the presence of the Seremban Campus contributed to the growth of their businesses while 90.45 per cent of the respondents in Kuala Pilah and 90 per cent respondents in Rembau Campus agreed with similar sentiments.

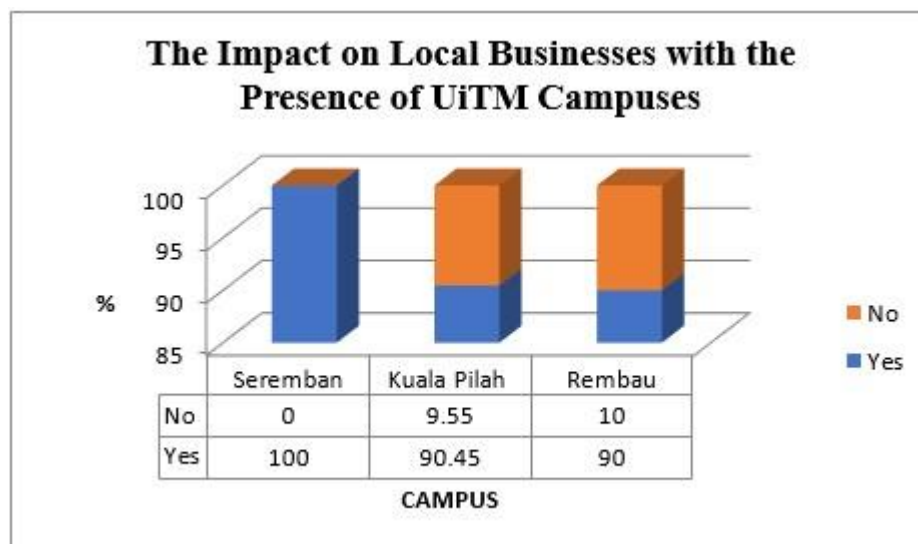


Figure 1: Economic Impact on Local Businesses

The respondents who answered “Yes” to the above question were asked to estimate the percentage of growth in gross income obtained due to the presence of the UiTM campuses. As can be seen in Figure 2, a total of 24 out of 62 respondents (38.71 per cent) estimated the percentage growth to be 39 per cent while 41.94 per cent estimated the growth to be higher, between 40% to 79% while the remaining respondents (19.35%) estimated growth to more

than 80%. These results suggest the presence of these campuses had a positive impact on local businesses.

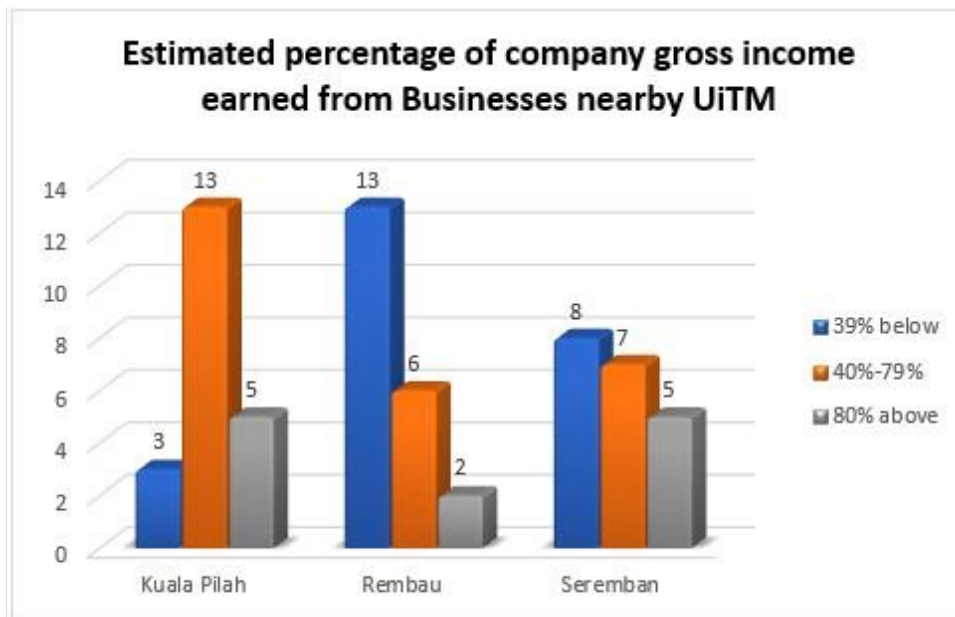


Figure 2: Estimated Percentage of Growth in Gross Income Obtained by Local Businesses

Table 2 exhibits the average estimated gross annual income obtained by local businesses due to the presence of these campuses. It is apparent from Table 2 that the business premises located surrounding Seremban Campus obtained the highest average gross income that was RM327879.00 followed by Kuala Pilah Campus (RM59183.81) and Rembau Campus (RM11214.29). This is probably due to the fact that the Seremban Campus has the largest population of students and staff, followed by the Rembau Campus and the least, in the Kuala Pilah Campus. Additionally, the Seremban Campus has the biggest number of non-resident students, more than half (55.34 per cent). These students mostly reside near the campus and consume more goods and services outside the campus, therefore boosting the overall local economy activities which resulted in the largest positive impact on the local economy. In contrast, the Rembau Campus has only 13.50 per cent of non-resident students, which restricts students' impact on the local businesses. The majority (86%) of the students reside within the campus. Hence, there is less opportunity for economic activities for these students who receive all that they need from the facilities within the University. Only a small percentage of non-resident students contributed to the local businesses.

The scene in the Kuala Pilah Campus is not very different from that of the Rembau Campus, with 19.27 per cent of the students being non-residents. Hence, the minority percentage contributed to the local business leaving the majority (80%) to be living on campus. The majority had all their needs within campus. Therefore, student expenditure in the two campuses (Rembau and Kuala Pilah) is relatively small compared to the Seremban Campus. The findings show that non-resident students in all three campuses have direct, indirect, and induced impact on local economies. These findings are in agreement with those obtained by Omar et al (2011) which showed that the economic impact of non-resident university students on the local neighbourhood could not be ignored. Additionally, the Rembau Campus is the newest campus. Both Rembau and Kuala Pilah campuses are located in rural settings where

less businesses are present and limited number of economic activities. The fact of a rural location also helps to explain the lesser economic impact on the surrounding community.

Table 2: Mean of Estimated Gross Income Obtained Due to the presence of UiTM Campuses

Campus	Mean	N	Std. Deviation
Rembau	11214.2857	21	11380.25860
Seremban	327879.0000	20	595651.74440
Kuala Pilah	59183.8095	21	68511.07578
Total	129611.9355	62	362650.12171

ANOVA test was used to determine whether there is a significant difference between the mean of gross income displayed in Table 2. The results are summarized in Table 3. The *p*-value obtained is less than the significant level of 0.05, indicating that there is a significant difference among the campuses. To fully understand the campus differences, multiple comparison test was performed. The results are displayed in Table 4 show there is a significant difference between gross income obtained by local businesses operated near Seremban Campus and business income obtained by local businesses operated near Rembau Campus at the level of significance 0.05 ($p < 0.05$). Similarly, the difference in gross income obtained by local businesses operated near Seremban Campus and Kuala Pilah Campus are also significant at the level of significance 0.05. However, there is no significant difference in gross income obtained by businesses operated near Rembau Campus and Kuala Pilah campus. It is a point of similarity that both Rembau and Kuala Pilah Campuses are situated in rural areas while the contrast is in the Seremban Campus, which is situated in the city that has many types of economy activities. Added to that is the fact that a large percentage of students in the Seremban Campus are non-resident students who live outside of campus. This itself is a way of generating more spending for the students, hence benefitting house owners, nearby eating and grocery shops and other businesses. In the other two campuses, where most of the students stay in the hostels, such spending is lesser. Nevertheless, in such circumstances, when students get the chance to go out, spending does take place and these are also calculated in terms of contributing to the economic status of the shop owners and small businesses in the vicinity of the campuses, but on a smaller scale.

Table 3: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Between Campuses	1184737189778.218	2	592368594889.109	5.111	.009
Within Campuses	6837684567389.522	59	115892958769.314		
Total	8022421757167.740	61			

Table 4: Multiple Comparisons

Campus (I)	Campus (J)	Mean Difference (I-J)	Std Error	Sig.
Seremban	Kuala Pilah	268695.19048*	106364.28094	0.037
	Rembau	316664.71429*	106364.28094	0.012
Kuala Pilah	Seremban	-268695.19048*	106364.28094	0.037
	Rembau	-47969.52381	105059.14832	0.892
Rembau	Seremban	-316664.71429*	106364.28094	0.012
	Kuala Pilah	47969.52381	105059.14832	0.892

*The mean is significant difference at the 0.05 level.

The respondents were asked to answer one significant question on their business sustainability that is whether their businesses would be affected with the absence of UiTM campuses. Their responses are displayed in Table 5. The majority of the respondents (93.55%) stated that their businesses would be affected in varying degrees. 14.56% admitted that their businesses would be very much affected followed by 32.23% of the respondents, who said that their businesses would be affected and 46.77% stated that their businesses would be minimally affected. The results suggest that the impact of these three campuses upon the economic development of the local communities, is very significant. The findings also strongly suggest that the establishment of UiTM Negeri Sembilan branch is considered to be one of the needed ventures in boosting the economic effects of the local community of Rembau, Seremban and Kuala Pilah.

Table 5: The Impact on Business with the Absence of UiTM

		What is the impact on your business if UiTM campus does not exist?					Total
		No Answer	Minimal affect	Very much affected	Affected	Not affected	
Campus	Rembau	1	11	2	4	3	21
	Seremban	0	10	6	4	0	20
	Kuala Pilah	0	8	1	12	0	21
Total		1	29	9	20	3	62

Conclusion

The findings showed that the local businesses around all campuses under study have benefitted from the presence of the campuses. These campuses have a key role in delivering economic growth to local businesses. This is mainly due to the purchasing power of the entire university which increased the turnover of local businesses. This group from the university, in total comprised, the academic and non-academic staff, the students and all other workers directly and indirectly involved with the university. They generated an economic impact as a result of the money that was spent in local businesses. While these university campuses are part of the same organization, this study also captured the diversity found within these universities. The diversities of these campuses included location, student and staff population size and hostel capacity, giving rise to the varying degrees of economic impact to their communities. The findings highlighted the importance of these campuses’ involvement, in advancing rural and urban economic development and sustainability.

A contribution of this study is the adding of new knowledge to the review of literature regarding the impact of university on local community. Many previous studies focused on single unit university and not many on multi-campus university, as such studies are scarce. This study is among the first implemented on the largest multi-campus public university in Malaysia. The analysis of this study added to existing research by confirming results of previous studies that the establishment of a university brings a positive impact on local community where it increases the turnover of the businesses. However, the present study also identified that for a multi-campus university, different geographical location gives different economic impact despite the same administration and the same policies. What this

study found was that where the multi-campus university was in an urban location, the economic impact was greater than that of the one located in a rural location. It is clear that the major factors influencing the degree of its economic impact are location and population where urban campus with largest population has the highest impact on local economy.

Undoubtedly, this study certainly become an important asset in establishing a good reputation of the university campuses that highlighted that the campuses communities play important roles in developing the local economy. Universities are assets to their local community where their students and staff play an important role in their local economies. They can bolster the economies of local communities, mainly because their staff and students spend money in their local areas. Universities have significantly contributed to the development and growth of the local economies. The findings are helpful to many quarters; the top management of the university, policy makers and other government agencies to better understand the economic impact of multi-campus universities to the local community and consider the next courses of action that can be taken to enhance a positive business impact to the local community.

Further research could look into the other multi-campus universities which exist in the unique network of UiTM establishments in the country. Further research could compare and contrast the economic impact of multi-campus universities and cite reasons for such, concentrating on working on enhancing the positive and tackling and minimising the negative, if found. Further research could also compare ordinary universities to multi-campus universities, from the economic stance and perhaps also in other areas as well. This study has opened the way for more research into multi-campus universities and the economic impact of such, which may not necessarily be the same or equal. Factors for variance have been cited and can be researched further for greater positive economic impact to the surrounding businesses, big and small.

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