The Economic Impact of UUM International Students' Expenditure on Business Activities in Changlun

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Abstract

This study examines the potential impact from the expenditure patterns of UUM international students in Changlun on local development particularly among Changlun businesses. For this purpose, the international students' expenditure patterns in Changlun are examined in terms of the estimated monthly expenditure, the location of spending and the frequency of spending. This study employs the quantitative method to analyze the primary data that were collected from questionnaires distributed to a sample of 150 UUM international students. Among others, the findings of this study reveal that their subsistence spending contributes substantial impacts on Changlun economy leading to continued developments of certain industries; foods and beverages, clothing, telecommunication, and entertainment in the short run. In view of the fact that UUM operations considerably influence the economy of the adjacent town of Changlun, it is recommended that the UUM administrators to strategically plan for increased admission of potential international students to pursue their undergraduate and postgraduate studies at UUM as a means towards continually promoting for intellectual and cultural diversity among UUM students as well as enhancing the economic performance of local businesses.

Key words: economic impacts, international students' expenditure, business activities, Universiti Utara Malaysia

Introduction

International education has become a notable phenomenon in recent years particularly for higher education. Higher education has become increasingly globalized with a growing number of students keen to pursue their undergraduate and postgraduate studies outside of their home countries. In the context of Malaysia, the country has served as the preferable host for some 150,000 international students in 2015 and the enrolment is projected to accelerate up to 200,000

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international students in 2020 (Department of Higher Education, 2016; Ministry of Higher Education, 2016). Without a doubt, international students represent an important source of economic contributions to both national GDP and export revenues of host countries and the respective educational institutions (Paltridge, Mayson & Schapper, 2012). Annually, the higher education sector yields around RM4.5 billion and the sector is estimated to generate RM10.0 billion given the increase up to 200,000 international students by 2020 (Afterschool.my, 2016). Being as one of the higher learning institutions in Malaysia, Universiti Utara Malaysia (UUM) has become a favourable destination of international students.

Figure 1 shows the number of international students at UUM. Statistically, UUM has hosted a growing number of international students, from only 22 students in 2007 to 2,469 students in 2017 (UUM, 2017). The trend has grown at the compound annual growth rate (CAGR) of 60.3 percent per year from 2007 to 2017. The international students at UUM come from 48 countries across the globe. As a result of the increasing number of international students and their diverse backgrounds, there is enriched intellectual and cultural diversity at the university. At the same time, their presence has brought economic, social and cultural benefits not only to the UUM community but are extended to the community of the adjacent town of Changlun as well.
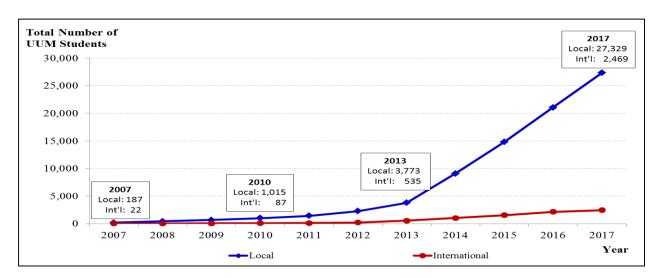

Figure 1

Total Number of Students in UUM by Nationality, 2007 - 2017

Source: UUM, 2017

The importance of universities for the local economies has long been recognized (Armstrong, Darrall & Grove-White, 1997). More importantly, the short-term economic benefits that an international student brings to a local university are analogous to those generated by an international tourist (Oxford Economics, 2013). In this study, the focus of interest is the economy of Changlun which is the nearest town to the university. Generally, the admissions of international students to UUM result in substantial injections of direct spending into the local economy. These injections mainly come from the subsistence spending[6] of international students during their studies at UUM. This spending is expected to support the economic activities of Changlun business operators in the short term.

In general, the Malaysia's public universities including UUM have tolerably supported for the internationalisation policy by enabling more enrolments of international students who are keen to be studying in the Malaysia's higher education system ranging from the Bachelor to PhD levels, respectively (Kassim, 2014; UUM, 2017). This is line with the collective effort of the Malaysia's universities as means to meet rising globalization needs and continually improve respective positions within the world's ranking in education. By and large, various initiatives have been undertaken over the years to compete among other universities across the globe and increase the enrolment of international students who are interested to be studying in Malaysia. As a result, the admissions of international students in particular have positively brought considerable economic and social impacts to the country and local communities, accordingly. However, it is later found out that the overall impact of international students on the economic and social aspects has not been formally documented thus far by any university in Malaysia.

The motivation to undertake this study primarily hinges upon the aim of analyzing the short term impacts from the expenditure patterns of UUM international students on Changlun business activities. The expenditure patterns are assessed in terms of the estimated subsistence spending, spending locations and spending frequency levels in a month.

The rest of this paper is structured as follows. Section 2 reviews the existing literature on the economic impact of international students on the local economy and Section 3 describes the methodology and data used in the study. The empirical results are reported in Section 4 and Section 5 wraps up with the policy implications and conclusions of this study.

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[6]Subsistence spending, which is interchangeably known as 'off-campus' spending, covers all expenses on goods and services excluding the tuition fees paid by international students.

Literature Review

International students have become an important source of economic contributions to the local communities and economies for many countries across the globe. Numerous countries, including Malaysia, have hosted a diverse group of international students as a means to function effectively in the age of globalization and to increase revenues (Harryba, Guilfoyle & Knight, 2011). According to Siegfried, Sanderson and McHenry (2007), the basic procedure of economic impact studies is to sum up the various expenditures of the university community notably by the students, faculty, staff and visitors created by the university's presence and multipliers are applied thereafter to account for the interdependency of economic activities in the local economy. Hence, the results constitute the estimated 'local economic impact.' Within the literature, inputs into a university impact analysis may come in the forms of direct employment and payroll less federal taxes, expenditures for equipment, supplies and services, construction costs, spending in the local community by students, administrative staff and faculty members, tuition fees paid by full-time and part-time students and expenditures by visitors, including alumni, who attend the academic and/or athletic events at the university.

The pioneer study on the estimation of the overall economic impact of a college or a university on the local economy was developed by Caffrey and Isaacs (1971). The work of Caffrey and Isaacs (1971) employed a systematic model, which was known as the American Council on Education (ACE) method, to handle the measurement of economic impacts. Using a system of equations (linear cash-flow formulas), the model uses the university's purchasing data, employees' payroll and local spending of students and visitors to determine the total university-related direct expenditures. Subsequently, regional economic multipliers were applied to the total expenditures to determine the overall economic impact (Abidin, Haseeb, Azam, & Islam, 2015; Abidin, Haseeb, & Islam, 2016; Abidina, Haseeb, & Jantan, 2016; Tarman & Yigit, 2013).

Since then, there have been a growing number of economic impact studies, each one adding innovations into the complexity and breadth of the studies. For instance, Rosen, William and Kramer (1985) undertook a study on the economic impact of the University of Wisconsin – Madison. Given the size of the campus with 44,000 students, Rosen *et al.* (1985) attempted to assess the impact by administering a series of surveys to local and international students, staff, residents and businesses, respectively, instead of adopting a snap-shot approach used by most of

the previous studies. Their 1985 study only reported the direct impact; there was no attempt to evaluate the multiplier effect using an input – output model of Dane, the county in which the University is situated. However, the multiplier of another county, Door, was used to evaluate the multiplier effect of the University. However, in an their updated study Rosen *et al.* (1991), the multiplier effects were arbitrarily assumed, i.e. 3.00 for the economic impact for the state and 2.25 for the local economy (Abidin, Bakar, & Haseeb, 2014, 2015; Abidin & Haseeb, 2015).

Williams (1989) embarked on a study to estimate the economic impact of Northwestern State University of Louisiana. A multiplier of 1.6 was adopted to estimate the economic impact of the students, employees and visitors spending. Their direct spending of USD39 million annually was translated into USD63 million annually on the community of Natchitoches. Later, it turned out that Williams (1989) took an average of the value of multipliers used in previous studies and considered the corresponding indicator to be reasonable for the local community. Later, a well-documented study on economic impact was presented by the Virginia Commonwealth University (VCU, 1992). After identifying the direct effects and the intangible or long run benefits, VCU (1992) however, went on to leave out the estimations of multiplier effects both for the state and the local community. The reasons behind the exclusion of multiplier effects were due to the problems associated with the arbitrary selection of a multiplier and the overall credibility of the results. Siegfried, Sanderson and McHenry (2007) argued that the complexity of impact studies leads to higher dispersion in measurements, implying more diversity among the universities than there actually is, thus raising concerns about the accuracy and reliability of those multiplier estimates.

In other parts of the world, for instance, Armstrong, Darrall and Grove-White (1997) conducted an in-depth study on the local economic, social and environmental impacts of Lancaster University in the United Kingdom. The work of Armstrong *et al.* (1997), which employed the input – output analysis, focused the North West region of England in the period 1991/1992 with the likely impact of its further expansion through 2001 being explored as well. From the findings of Amstrong *et al.* (1997), it was revealed that Lancaster University has major economic, environmental and social impacts as well as higher research employment and income multiplier effects on the local economy. Specifically, with regards to the economic aspect, the benefits generated by the existence of Lancaster University on the local area were increased local GDP and disposable income via the multiplier process as well as the prevailing positive effects

on the local construction sector during the period of rapid expansion in the number of students in the UK.

Meanwhile, Oxford Economics (2017) undertook the 2014/2015 study on the overall economic impact of international students in the United Kingdom (UK) universities on the UK economy as measured from their active spending on a wide range of goods, services and activities. With a total of 437,000 international students, i.e. from the EU and non-EU continents, this made up 19 percent of all registered students at UK universities in 2014/2015. Among others, the findings of Oxford Economics (2017) revealed that the total subsistence spending of international students including payments to the UK universities were estimated to yield Euro6.1 billion within the UK economy in 2014/2015. The students' subsistence spending were calculated using surveys on the expenditure patterns of students who attended the English, Welsh and Scottish universities multiplied by the corresponding number of international students. Also, the findings disclose that international students are found to significantly contribute substantial impacts to other British industries such as Euro750 million being added to the UK transport industry and Euro690 million being added to the retail industry.

Through a review of the literature, it is evident that there is a lack of studies that specifically examine the economic impact of international students studying in host countries' universities on the local communities and economies particularly for Malaysia. Therefore, the present study on the economic impact of UUM international students' expenditure on Changlun business activities, which is expected to bridge the existing gap in the literature, contributes to the new knowledge by highlighting the significant role that the UUM international students plays in the growth and development of the local and regional economy.

Methodology

Data and Sampling Method

This study utilizes primary data to examine the economic impact of UUM international students' expenditure on Changlun business activities. A survey was administered to a sample of 150 UUM international students in which the respondents were selected under a simple random sampling method. Subsequently, the data were collected from the questionnaires distributed to the respondents.

Method of Analysis

The data were analyzed using the quantitative method. The method allows for objective observation and precise measurements while the statistical analysis and verifiable truths are valued for their reliability and validity (Cavana, Delahaye & Sekaran, 2001). It is employed to collect demographic and numerical data on the economic aspects of the respondents. These data are measured in the forms of nominal, ordinal, interval and ratio scales. Next, the percentage values of the monthly expenditure patterns in Changlun of UUM international students as reflected through their monthly expenditures, spending locations and spending frequency levels in Changlun can be estimated thereafter.

Results

Table 1 shows the frequency and percentage values of the demography aspects of the 150 international students. On gender, male students comprise 65 percent of the respondents compared to female at 35 percent. Pertaining to nationality, the students come from 14 countries. A majority of the students are from Pakistan at 29 percent followed by Nigeria at 25 percent. A majority of the respondents (58 percent) are master students. Also, a majority of the respondents are currently in their second year of study (44 percent).

Given the focus of this study is on the expenditure patterns of UUM international students in Changlun, three different aspects concerning the UUM international students namely their monthly expenditures, spending locations and spending frequency levels in Changlun are closely examined and reported in this study.

Table 1

Demography and Characteristics of Respondents

Demography	Characteristics	Frequency	Percentage
Gender	Male	97	64.7
	Female	53	35.3
Nationality	Pakistan	44	29.3
	Nigeria	38	25.3
	Algeria	15	10.0
	Bangladesh	12	8.0
	Jordan	10	6.7
	Indonesia	7	4.7
	Yemen	5	3.3
	Iraq	4	2.7
	Somalia	4	2.7
	India	3	2.0
	China	3	2.0
	Libya	2	1.3
	Tanzania	2	1.3
	Syria	1	0.7
Program of Study	Bachelor	13	8.7
	Masters	87	58.0
	PhD	48	32.0
	Others	2	1.3
Year of Study	First Year	35	23.3
	Second Year	66	44.0
	Third Year	29	19.3
	Fourth Year	14	9.3
	Fifth Year and Above	6	4.0

Accordingly, Table 2 illustrates the respondents' subsistence spending on 14 selected items or services in Changlun in a month. Overall, the 'off-campus' spending of the respondents in Changlun in Table 2 provides a picture of the international students' expenditure patterns It is observed from Table 2 that about half (49.3 percent) of the respondents spend more than RM400 per month on food and beverages in Changlun while the other half (50.7 percent) are found to spend less than RM400 on food and beverages. Based on this pattern, food-related industries have a good growth prospect due to the demand of UUM international students.

For clothing, 68 percent of the respondents are found to spend less than RM400 per month while the other 32 percent spend at least RM400 on clothing per month. With over 30 percent of

the respondents spending at least RM400 per month on clothing, it is anticipated that the clothing industry has the potential to grow and expand further in the short term.

Pertaining to telephone, communication appliances, computer and accessories in Table 2, it is revealed that a majority of the respondents (55.3 percent) spent between RM400 – RM600. About 70 percent of the respondents spent less than RM400 on these items while another 30 percent spent more than RM400. The young generation are IT savvy and communication gadgets are essential items that support their lifestyles. Therefore, there is a high potential for growth for the service providers as well as for computer and communication-related industries in the short term. The expansions of these industries are assisted by the expenditure made by UUM international students.

Table 2

Monthly Subsistence Spending of Respondents in Changlun (RM)

No.	Item/Service	Less than RM200	RM200 – RM400	RM400 – RM600	RM600 – RM800	RM800 – RM1000	More than RM1,000
1.	Food and beverages	18.7	**32.0**	20.6	14.0	10.0	4.7
2.	Clothing	21.3	**46.7**	16.0	5.3	8.0	2.7
3.	Petrol	10.7	**71.3**	6.7	3.3	6.0	2.0
4.	Housing rent	38.0	**40.7**	12.7	4.0	2.0	2.7
5.	Furniture and home appliances	12.0	**71.3**	8.1	3.3	3.3	2.0
6.	Health services	10.7	**78.0**	6.0	1.3	2.7	1.3
7.	Telephone, communication appliances, computer and accessories	14.7	**55.3**	12.7	7.3	6.7	3.3
8.	Public transportation	11.3	**74.7**	8.7	3.3	0.7	1.3
9.	Recreation, entertainment and leisure	18.6	**52.0**	12.0	8.0	6.7	2.7
10.	Photocopying/Binding	12.6	**58.7**	12.6	6.7	6.7	2.7
11.	Car workshop	10.0	**70.0**	8.0	4.7	6.0	1.3
12.	Car wash	11.4	**70.0**	6.0	6.0	5.3	1.3
13.	Laundry	12.6	**68.7**	8.0	6.7	3.3	0.7
14.	Barber and beauty salon	10.0	**71.4**	7.3	5.3	4.7	1.3

Note: All figures shown are in percentage (%).

Next, for recreation, entertainment and leisure as well as photocopying/binding, about 30 percent of the respondents (29.4 percent for leisure goods and 28.7 percent for photocopying/

binding) spend more than RM400 in these categories while another 70 percent of the respondents (70.6 percent for leisure goods and 71.3 percent for photocopying/binding) are found to spend below RM400 interval in both categories. Their expenditure in entertainment-related industries and photocopying/binding-related industries in Changlun help the businesses to continually expand their businesses in the short term.

Interestingly, a major proportion of the respondents that are found to spend less than RM400 for certain items or services. These are health services (88.7 percent), public transportation (86.0 percent), furniture and home appliances (83.3 percent) and petrol (82.0 percent). Several reasons can be offered that explain this pattern. For health services, many of the respondents choose to utilize the free health service available at the University Health Centre located on the UUM campus so as to minimize their health spending at private clinics in Changlun. Apart from that, there is low spending on furniture and home appliances where many of the respondents spend between RM200 to 400 monthly which implies the availability and adequacy of such items already available at their residential places (if they rented a fully-furnished house) or they place lower priority on purchasing these items considering their stay in Malaysia is temporary and not permanent. For instance, certain electrical items such as washing machines are no longer a necessary household item since there are several self-service laundries and the traditional laundries available in Changlun now. This is corroborated by the spending pattern for laundry where 81 percent of the respondents spend up to RM400 for laundry services. Also, regarding the use of public transport where 86.0 percent of respondents spend less than RM400 per month on this item, this reflects that a considerable proportion of international students do make long distance travel but a majority are heavily dependent on public transport such as taxis and buses. However, international students also travel by car which is implied by the evidence on the expenditure on petrol. Cars are convenient because compared to public transport there is no time limit to use cars for travelling. Students may own a car or they may rent a car because there are many car rental services in Changlun now where students may rent a car by the hour or by the day. Normal car rental rate for students is RM120 per day or RM7 per hour. However, their spending on petrol is moderate with 82.0 percent of the respondents spend less than RM400 on petrol per month. It is worth noting that the remaining items and services in the list namely housing rent, car workshop, car wash, laundry and barber and beauty salon

indicate that less than 25 percent of the respondents spend above RM400 per month for these items.

To give a more comprehensive picture regarding the spending patterns of international students, Table 3 provides some insights on the likelihood of UUM international students to spend on items or services in Changlun at various locations of interest in a month.   With reference to the results in the table, it is revealed that certain items or services are primarily purchased from two locations namely shops and supermarket in Changlun. Accordingly, it can be deduced from Table 3 that the supermarket constitutes a popular spending location of the UUM international students to acquire the following general items; food and beverages, clothing, telephone, communication appliances, computer and accessories as well as recreation, entertainment and leisure. In this regard, several reasons can be put forward on why the supermarket is one of the favourite places of the international students. First, it is a convenient place to do shopping. Second, there is relatively easy communication and considerably low language barrier in interacting with the staff. These reasons may possibly explain the popularity of the supermarket as being the preferred spending location in Changlun among the respondents. There is currently only one supermarket in Changlun and it currently is a one stop centre that students can get their food supply, personal items, as well as leisure and entertainment.

Meanwhile, the rest of places; gas station, private clinics and shops represent key spending locations in Changlun among the respondents in a month as strategic means to acquire specific goods and services namely petrol, health services, furniture and home appliances, photocopying/binding, car workshop, car cleaning, laundry as well as barber and beauty salon. On the other hand, two spending locations; daily/night market and hawker are found to be the least preferred places to acquire items such as food and beverages, as well as clothing even though these items are widely sold in these locations. There may be several reasons behind this spending location pattern. Daily/night market and street side hawker posed several challenges to the international students as the business is being held in an open space and possibly filthy areas. There is also the added challenge of parking hassle and communication problems in terms of the language barrier in interacting with the locals that pose as a deterrent resulting in these locations being the least preferred ones in the eyes of the respondents.

Table 3

Spending Locations of Respondents in Changlun

No.	Item/Service	Shop	Daily/Night Market	Super-market	Hawker	Restaurant	Gas Station	Clinic	Cybercafé
1.	Foods and beverages	9.3	5.3	**63.3**	2.1	20.0			
2.	Clothing	33.3	3.3	**62.1**	1.3				
3.	Petrol						**100.0**		
4.	Housing rent	████	████	████	████	████	████	████	████
5.	Furniture and home appliances	**60.7**	3.3	34.0	2.0				
6.	Health services	12.0	0.7	3.3				**84.0**	
7.	Telephone, communication appliances, computer and accessories	45.3	1.3	**52.1**	1.3				
8.	Public transportation	████	████	████	████	████	████	████	████
9.	Recreation, entertainment and leisure	25.3	3.3	**59.4**	2.0	8.7			1.3
10.	Photostat/ Binding	**44.6**		26.7					28.7
11.	Car workshop	**94.0**		4.0			2.0		
12.	Car cleaning	**92.7**		4.0			3.3		
13.	Laundry	**88.0**		12.0					
14.	Barber and beauty salon	**87.3**		12.7					

Note: All figures shown are in percentage (%).

The results on spending frequency of the respondents in Changlun in a month are reported in Table 4. From the table, it is shown that 64.6 percent of respondents tend to shop for food and beverages more than six times in a month in Changlun. On the contrary, the rest of the respondents, i.e. 33.4 percent, are found to shop between one and five times in a month for food and beverages. Given the high frequency of shopping on food and beverages, it is predicted that the food-related industries have great prospects to further expand their business activities in the short term to satisfy the high demand for food and beverages among the UUM international students.

Table 4

Monthly Spending Frequency of Respondents in Changlun

No.	Item/Service	Never	1 – 5 times	6 – 10 times	11 – 15 times	16 – 20 times	More than 20 times
1.	Food and beverages	2.0	33.4	**56.7**	5.3	1.3	1.3
2.	Clothing	13.3	20.0	**64.0**	2.0		0.7
3.	Petrol	28.6	20.7	**46.0**	4.0	0.7	
4.	Housing rent	███████████████████████████████████					
5.	Furniture and home appliances	42.0	12.0	**43.3**	0.7	0.7	1.3
6.	Health services	41.3	8.0	**46.7**	3.3		0.7
7.	Telephone, communication appliances, computer and accessories	19.3	16.0	**60.7**	3.3		0.7
8.	Public transportation	21.3	22.0	**52.7**	2.0	0.7	1.3
9.	Recreation, entertainment and leisure	15.4	20.0	**57.3**	4.0	2.0	1.3
10.	Photostat/Binding	21.3	12.7	**61.4**	3.3	1.3	
11.	Car workshop	38.7	13.3	**44.7**	3.3		
12.	Car wash	40.7	14.7	**41.3**	3.3		
13.	Laundry	38.0	13.3	**48.0**	0.7		
14.	Barber and beauty salon	32.0	16.7	**50.0**	1.3		

Note: All figures shown are in percentage (%).

With regard to clothing, about 66.7 percent of the respondents tend to spend more than six times in a month for clothing. In contrast, a lesser proportion of international students, i.e. 20 percent, tend to spend between one and five times in a month. Because of the high proportion of the respondents that tend to purchase this item in Changlun at least six times and higher in a month, it is anticipated that the clothing industry to grow in size and capacity in the short term.

Looking at the expenditure pattern of the respondents for telephone, communication appliances, computer and accessories, it is observed that 64.7 them tend to spend more than six times in a month for these items while a smaller proportion or 16 percent, spend five times at the maximum for these items monthly. Hence, in consideration of the substantial impacts brought by the purchases of these items in Changlun, it is projected that the service providers as well as the computer and communication-related industries to be in a well-suited position to expand their businesses in Changlun in the short term.

As far as recreation, entertainment and leisure goods are concerned, 64.7 percent of the respondents are found to shop over six times in a month for these items while another 20 percent purchase these goods up to five times only in a month. Given the high proportion of the

respondents that shop at least six times in a month, this should provide considerably far-reaching effects on these businesses. It is forecasted that entertainment-related industries have an excellent prospect in expanding their business operations in the short term.

Pertaining to photocopying/binding, it is shown that 66 percent of the respondents tend to shop more than six times in a month compared to another 12.7 percent who are seen to be moderate by shopping for this item up to five times only in a month. Based on this observation, a higher proportion of respondents spend more frequently in a month compared to a lesser proportion that spend less frequently, thus this should produce high demand on this item in Changlun. Eventually, the high demand may foster additional growth in the photocopying/binding industry to cater for their customers' need in the short term.

The remaining items and services; petrol, housing rent, furniture and home appliances, health services, public transportation, car workshop, car wash, laundry and barber and beauty salon show that about half of respondents shop more than six times in a month.

Finally, to estimate the total expenditure made by the UUM international students in Changlun in a month, the results are reported in Table 5. To calculate the monthly estimated expenditure, the study used two variables namely the average spending per month on each item and the number of students. The amount used as the average spending is RM300 per month per student based on finding that a majority of the respondents spend in the RM200 – RM400 interval for all items in the list. To get the number of students for each item, the percentage of students in the RM200 – RM400 interval is multiplied by the total number of students. Based on the calculation, it is estimated that the total monthly expenditure made by international students in Changlun economy is close to RM6.4 million in 2017. Further, it is observed from Table 5 that all listed business activities in Changlun receive varying injections with health services receiving the highest injection.

Additionally, by looking at the respective percentages of respondents who spend in the RM200 – RM400 interval in Table 5, it is worth highlighting that there is a possibility of short term growth potential to be seized by certain businesses namely food and beverages, clothing, telephone, communication appliances, computer and accessories, recreation, entertainment and leisure and photocopying/binding since there is a high percentage of respondents who are spending above RM400 for these items per month. For example, only 32 percent of the

respondents spend in the RM200 – RM400 interval, but 57 percent are spending above RM400 for this item.

Table 5

Estimated Monthly Total Expenditure of International Students in Changlun in 2017

No.	Item/Service	RM200 – RM400 (in percentage)	RM200 – RM400 (in no. of students)	Total Expenditure (in RM)*
1.	Food and beverages	**32.0**	790	237,000.00
2.	Clothing	**46.7**	1,153	345,900.00
3.	Petrol	**71.3**	1,760	528,000.00
4.	Housing rent	**40.7**	1,005	301,500.00
5.	Furniture and home appliances	**71.3**	1,760	528,000.00
6.	Health services	**78.0**	1,926	577,800.00
7.	Telephone, communication appliances, computer and accessories	**55.3**	1,365	409,500.00
8.	Public transportation	**74.7**	1,844	553,200.00
9.	Recreation, entertainment and leisure	**52.0**	1,284	385,200.00
10.	Photocopying/Binding	**58.7**	1,449	434,700.00
11.	Car workshop	**70.0**	1,728	518,400.00
12.	Car wash	**70.0**	1,728	518,400.00
13.	Laundry	**68.7**	1,696	508,800.00
14.	Barber and beauty salon	**71.4**	1,763	528,900.00
Total estimated expenditure of international students per month:				**6,375,300.00**

Note: * is calculated based on a total 2,469 international students and an average spending of RM300.00 per month on each item and service in 2017.

Policy Implications and Conclusions

The establishment of UUM imparts substantial influence on the economy of Changlun where its operations directly or indirectly impact business activities there. In particular, as shown by Table 5, the international students' off-campus spending on goods and services constitute an engine for economic growth and development. This is clear in view of the high total expenditure made in the local economy by the international students. The estimated amount of spending at RM6.4 million per month, varying across items and services, is expected to spur the business activities of these enterprises in Changlun.

Based on the findings of this study, there are substantial impacts on Changlun economy brought by the UUM international students. In addition, based on their expenditure patterns,

certain industries are the direct recipients of those benefits which are likely to spur their continued growth. These industries are; food and beverages, clothing, telecommunication, entertainment and photocopying/binding located in Changlun. As such, these industries should plan suitable strategies to continue to attract the patronage of these international students at their business premises. Furthermore, these businesses should be more creative in trying to create new business opportunities. For example, international students usually consume different diets back home. Their cooking ingredients are different and are often not available in Malaysia, particularly in a small town like Changlun. Therefore, there is a great potential to be had in the food and beverages business if this demand for foreign imported goods can be catered for by local businesses. For example, currently there are many students from African countries such as Nigeria and Somalia as well as the Middle East studying at UUM. Based on the interviews with the international students, there are no shops supplying African food items in Changlun and they have to travel to Kuala Lumpur to get their supplies.

Given the evidence that international students bring substantial impact on the local economy based on their estimated subsistence spending locally, it is therefore recommended that the UUM administrators consider more aggressive ways to increase international student admissions to undergraduate and postgraduate studies in UUM as a means of continually promoting for intellectual and cultural diversity among the students besides enhancing the economic competence of local businesses.

In addition, the findings of this study particularly on the spending locations of interest from Table 3 offer important signals to the local authority (the Municipal Council of Kubang Pasu) to ensure for continued improvement in existing amenities and related-infrastructures notably in the surrounding area of the supermarket and other commercial places such as the daily/night market and hawker areas in Changlun. Also, to encourage spending in the local economy in Changlun and the vicinities, it is recommended that the local authority ensure efficient public transportation services such as buses and taxis. The bus station that has recently been upgraded needs to be maintained and inspected at regular intervals. By improving the public transportation services, it is expected that many people, including the international students, will be attracted to shop for various items and services in Changlun. Apart from that, the local authority should seriously consider upgrading public facilities in Changlun considering this town is the nearest town to the point of entry from Thailand and is often frequented by tourists travelling to and from Thailand.

It is hoped that the findings of this study serve as an eye opener to the relevant authorities about the significant contribution of the international students in the local economy. As such, there is an urgent need to ensure for the continued contributions of international students' spending in the local economy by providing the international students with an environment that is conducive for studying and living.

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