

## **COMPARATIVE ANALYSIS OF RETAIL SHOPS ALONG BOHMU PHOKUN AND TAUNGOO UNIVERSITY ROADS**

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### **Abstract**

This paper analyse the retail shops of Bohmu Phokun and Taungoo University roads between 2007 and 2017. As the population increase in Myanmar, development process occur in every sector. Taungoo city either increased in total population or urban area. Taungoo lies within northern part of eastern Bago Region. It is also second largest district city after Bago city. It is located in southern part of Taungoo Township which is composed of 38 village tracts. These village tracts serve as hinterland of Taungoo city economy. Moreover, the development of educational centre such as Taungoo University, Teacher Training College, Computer University and GTC (Government Technology College) are established in Taungoo city environment. New Teacher Training College and Taungoo University are situated in western part of Taungoo city. The purpose of this paper is to investigate the influencing factors for the temporal changes of the pattern, types and style of retail shops. This paper is represented by the comparative study of retail shops for the years 2007 and 2017 along the Bohmu Phokun and Taungoo University roads which connect Taungoo and Taungoo University and Teacher Training College. Data was collected by field survey and structured interview for 2017 and comparative study was made based on 2007. Spatial analysis of retail shops is conducted by using GIS (Geographic Information System). The changes of the pattern, types and style of retail shops can be found year by year according to many background influencing factors especially Taungoo University and Teacher Training College. It is noted that the landuse pattern has been changed from agricultural landuse and residential landuse to commercial landuse along these roads especially between Taungoo and Taungoo University.

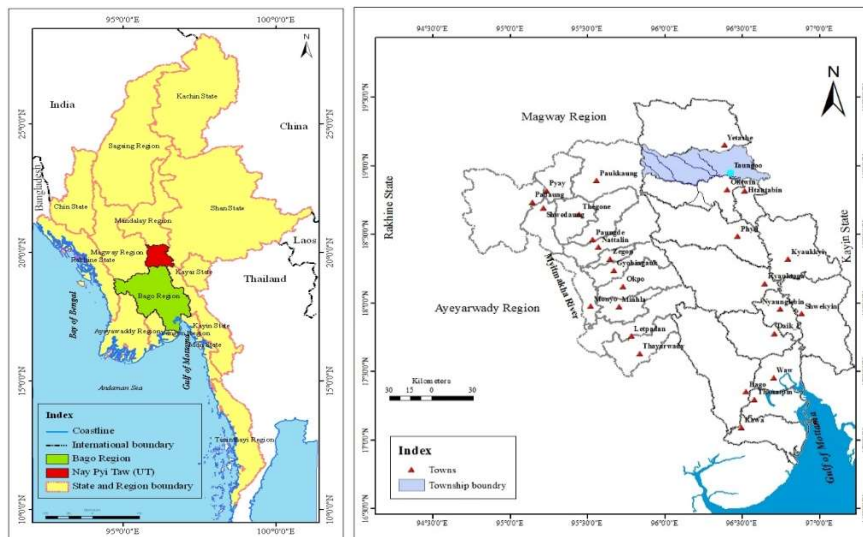
**Key words:** Retail shops, Taungoo University, Comparative study, spatial analysis

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## Introduction

Taungoo is located in the northeastern part of Bago Region. Bago Region itself is divided into east and west parts by Bago Yoma. As a result, development of urban areas in the region is dominated by many nodes rather than single node as a capital. Although Bago is the capital town of Bago Region, Pyay is thriving as a major node of western part while Taungoo become a major node in the eastern part. Taungoo is located on the Yangon-Mandalay Highway and Yangon-Mandalay Railroad. It is also connected with Taungoo-Loikaw Road which connects between Bago Region and Kayah State, and Taungoo-Thandaunggyi Road which connects Kayin State. Oktwin is located on the Yangon-Mandalay Road at a 14.5 km (9 miles) distance from Taungoo. It is connected to Pyay with Taungoo-Paukkhaung Road. Therefore, Taungoo becomes a junction between western and eastern part of Myanmar and northern and southern parts of Myanmar.

Since it is a junction and having many hinterlands, both wholesale and retail activities are developed in Taungoo. Wholesale activities are developed since it is an exchange place for commodities produced in different parts of Myanmar under different physical conditions. Retail activities are developed to supply the Taungoo and neighbouring towns and villages. Most of the retail activities serving the town itself and its neighbouring towns and villages are concentrated near the municipal market (Central Business District). Other retail activities serving the town populations are distributed throughout the town.(Figure. 1)



**Figure 1.(a)** Bago Region within Myanmar and (b) Taungoo in Bago Region

Source: Land Records Department

### **Research Questions**

In this paper comparative analysis of retail shops are conducted to answer following questions.

- (1) How retail shops are developed along the Bohmu Phokun and Taungoo University Roads for the year 2007 and 2017?
- (2) How retail shops are spatially distributed along the Bohmu Phokun and Taungoo University Roads in 2017?
- (3) What are the controlling factors for the spatial-temporal development and the style of the retail shops?

### **Data and Methods**

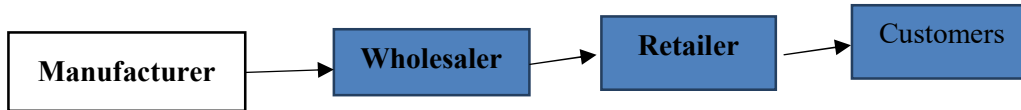
Data were collected in two ways to understand the temporal development and spatial variations of retail shops. Location of retail shops were recorded on the base map before digitizing on the computer. By means of digitizing the location of retail shops, spatial database of the study area was constructed. At the same time, retail shops were interviewed to understand the temporal development. The reasons to be able to explain the spatial and temporal development patterns of retail shops were also asked in the structure interview. Then, interview results were compiled by using Microsoft Excel Database.

Above two databases were combined by using ArcMap software to analyze the spatio-temporal development of retail shops for these two years according to answer above research questions.

In the first section of the paper deals with the physical factor of the study area. In the next section the development of retail shops along the Bohmu Pokhun and Taungoo University Roads for the two years are described. Then, spatial variation of retail shops by type, size and conditions are analyzed in section three. Section four discusses the controlling factors of retail shops distribution and development in the study area based on the interview results.

**What is retail?**

A retail sale occurs when a business sells a product or service to an individual consumer for his or her own use.

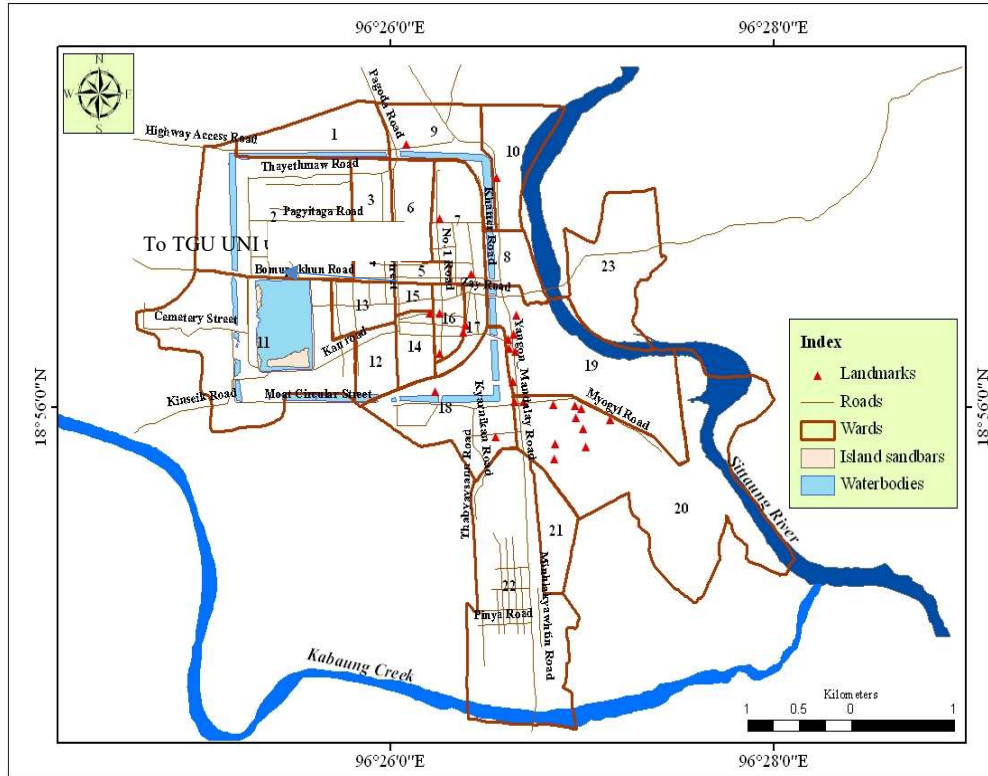
**The role of Retail Function**

Source: Based on retail definition

**2. Physical Bases of Study Area**

Taungoo is located in the northeastern part of Bago Region. It also lies in the southern part of Taungoo Township. It lies between 18° 54' and 18° 57' north latitudes and between 96° 24' and 96° 28' east longitudes. It is situated on the Yangon-Mandalay railroad and highway road.

Taungoo has an area of about 14.82 square kilometer (5.72 square miles) or about 0.86 percent of Taungoo Township. It also comprises 23 wards of Taungoo Myoma. Its boundary is demarcated by Kanyoe village tract on the north, on the east by Thahpabin and Mogaung village tracts, Ziedaine and Putsu village tracts on the south and Lebu is bounded on the west. Bohmu Phokun road is located in the ancient city boundary and trending east-west direction and connected with Taungoo University and Teacher Training College. (Figure 2)



**Figure 2.** Taungoo Myoma Wards  
 Source: Land Records Department and Google Earth Pro

**3. Development of Retail Shops**

The development of retail shops depends on many factors: market economic activity, establishment of Taungoo University and Teacher Training College on the western part of Taungoo, urban growth of Taungoo itself. Development of Taungoo depends on hinterland or neighbouring villages. Development of retail shops are varying within 11 years between 2007 and 2017. (Table 1)

Types of retail shops are represented with their respective symbols:

1. **Personal goods shops (PeG)** –Personal Goods Shops including grocery shops, stores, and various kinds of bakeries.

2. **Specialized services (SpS)** – Specialized services including beauty parlor, video tape and VCD rental, TV game, photo studio, sewing services, electrical goods shop and their repair work.
  3. **Daily consumption goods shops (DaC)**-Fast food shops like tea shop, rice noddle (mohhinkha) shops, Chinese Restaurant.
  4. **Betel and cigarette shops (Ft)**
  5. **Transport services (TrS)** – Transport Services shops like motorcycle repair shop, bicycle repair shops, car repair shops, gasoline shops.
  6. **School services (ScS)** - School Services likes hostels, tuitions, guest house.
  7. **Specialized shops related to University (SpU)** – Specialized shops related to University such as computerizing and copier shops, stationary shops, medicine shops.
- 8. BL-billiards houses**
- 9. Others (Ot)**

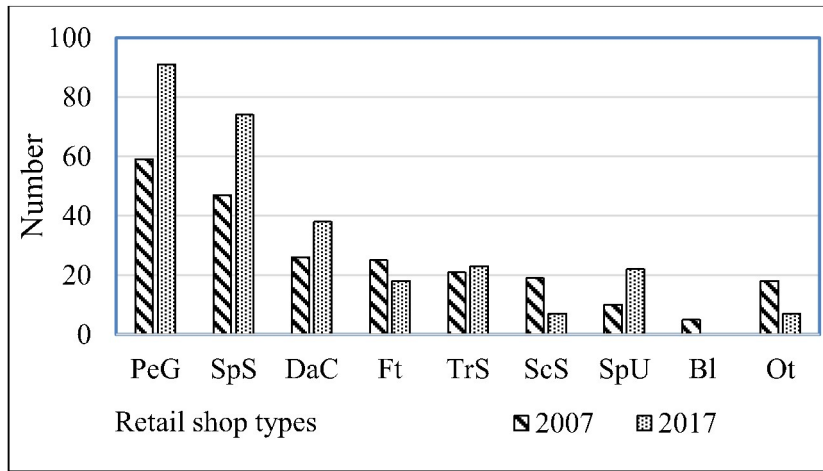
**Table 1.** Types of retail shops for the years 2007 and 2017

<b>Types of Retail shops</b>	<b>2007</b>	<b>2017</b>
PeG	59	91
SpS	47	74
DaC	26	38
Ft	25	18
TrS	21	23
ScS	19	7
SpU	10	22
BL	5	0
Ot	18	7
<b>Total</b>	<b>230</b>	<b>280</b>

Source: Field observation (December, 2006 and February, 2017)

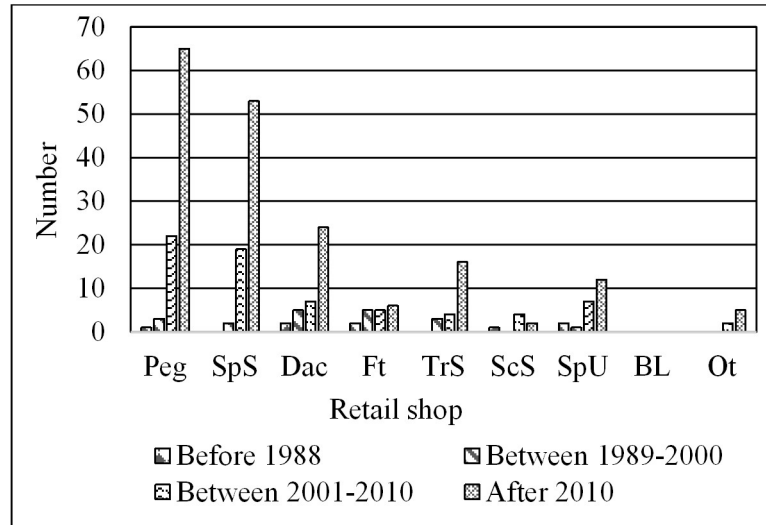
According to table 1, personal goods shops (PeG) increased from 59 in 2007 to 91 in 2017. This types includes daily consumer goods such as grocery shops, shoes, stores and wearing. Specialized services(SpS) also increased

from 47 in 2007 to 74 in 2017 including beauty parlor, video tape and VCD rental, book rental, TV game, photo studio, sewing services, electrical goods shop, mobile phone selling and services, internet cafe. Fast food shops (DaC) like tea shops, rice noodle (mohhinkha) shops, Chinese restaurant are also increased 26 in 2007 to 38 in 2017. Specialized shops related to University (SpU) includes computerizing and copier shops and medicine shops increased from 10 to 22. Betel and cigarette shops (Ft), School services (ScS) includes hostels, tuitions, guest house, billiards (BL) and others (Ot) decreased between 2007 and 2017. The total number of retail shops increased from 230 in 2007 and 280 in 2017 which the net total is 50 shops. (Figure 3)



**Figure 3.** Types of Retail shops development for the years 2007 and 2017  
**Source:** Based on table 1.

The development of retail shops are studied in detail for the year 2017 especially in four different periods: before 1988, between 1989 and 2000, between 2001 and 2010, and after 2010. The first period the development of retail shops under the state economy, the second period represent under the establishment of the market economy, the third and the fourth period depend the establishment of Taungoo University and others supporting factors. (Figure 4)



**Figure 4.** Development of retail shops in different period  
**Source:** Field observation (February, 2017)

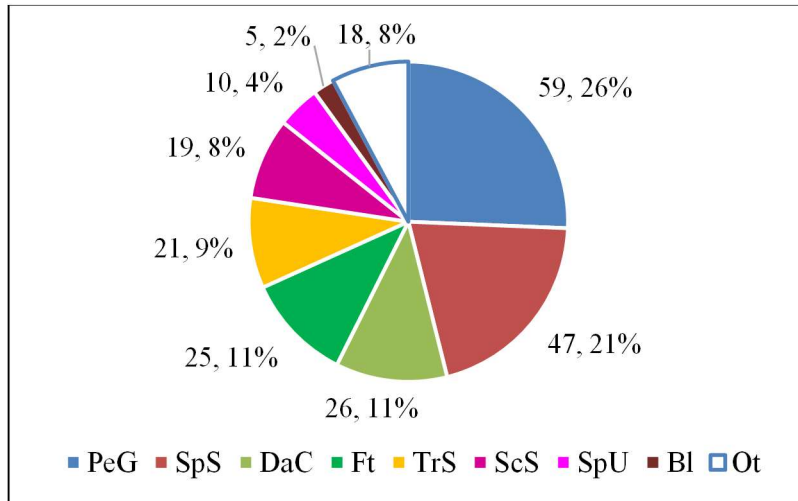
Share percentage or number of retail shops are presented in table 2 and figures 5 and 6. According to this table some types of retail shops like PeG, SpS, DaC, and SpU are markedly increased but some are such as Ft, ScS, and Ot decreased with their role of importance on customer.

**Table 2.** Development conditions of retail shops (2007 and 2017)

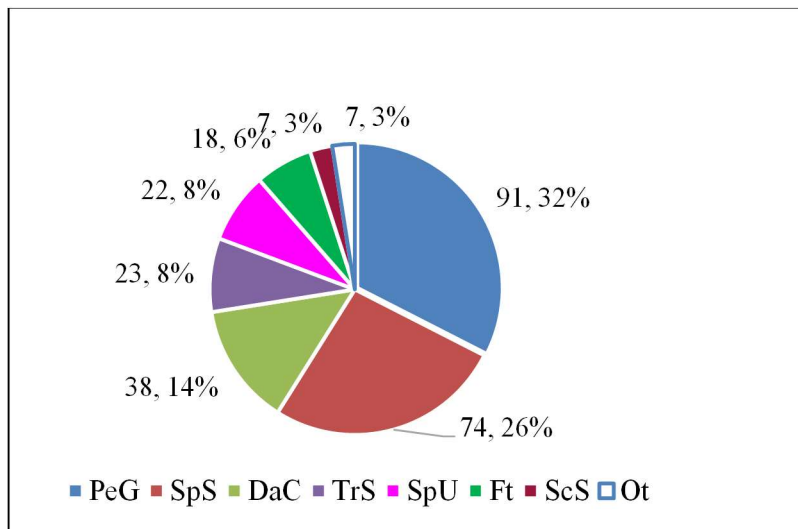
Types	2007	%	2017	%	Increase / Decrease Number
PeG	59	25.65	91	32.50	32.00
SpS	47	20.43	74	26.43	27.00
DaC	26	11.30	38	13.57	12.00
Ft	25	10.87	18	6.43	-7.00
TrS	21	9.13	23	8.21	2.00
ScS	19	8.26	7	2.50	-12.00
SpU	10	4.35	22	7.86	12.00
Bl	5	2.17	0	0.00	-5.00
Ot	18	7.83	7	2.50	-11.00
<b>Total</b>	<b>230</b>	<b>100.00</b>	<b>280</b>	<b>100.00</b>	<b>50</b>

**Source:** Field observation





**Figure 5.** Share percentage of retail shops for the year 2007  
**Source:** Field observation (December, 2007)



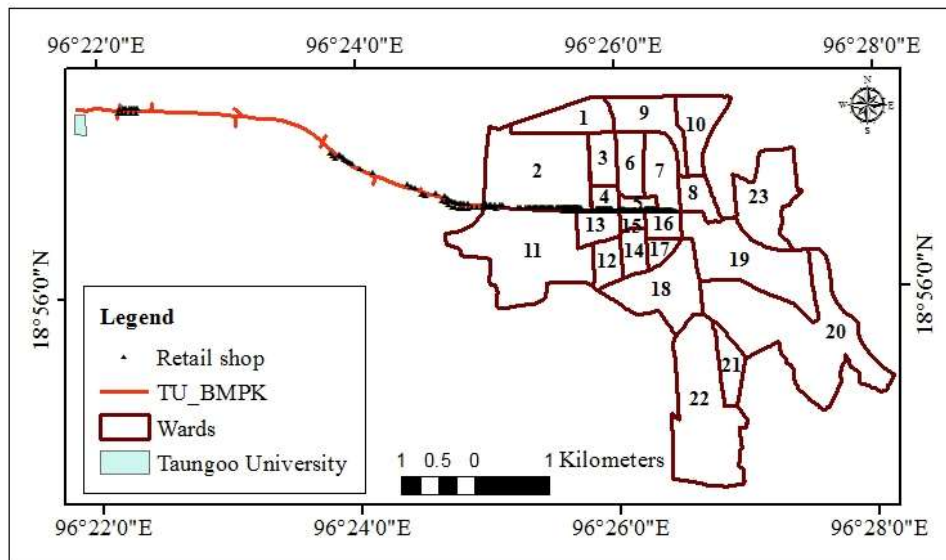
**Figure 6.** Share percentage of retail shops for the year 2017  
**Source:** Field observation (February, 2017)

According to the above comparative study of retail shops for the years 2007 and 2017, number of retail shops and share percentage are varying with their respective types. Moreover some retails totally disappeared and are

replaced with other types, apparel specially 5 billiard game centres in 2007 disappeared. Some retail shops especially apparel for men, women and children are more than others. Retail shops concerned with mobile phone selling and service centres new type of retail shops in 2017 which increased dramatically with the number of 28 shops.

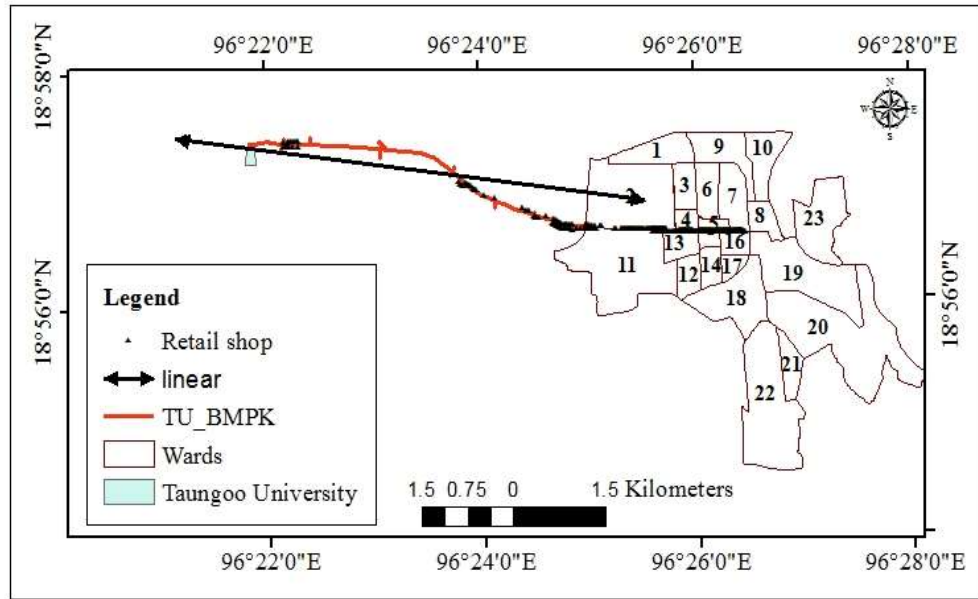
#### 4. Spatial Distribution of Retail Shops

Retail function is one of the factor of urbanization process in every city and towns. Most of the retail shops are found along either side of the streets or roads. In this study all the retail are unevenly distributed along both sides of Bohmu Phokun and Taungoo University roads. Their distribution are classified into 3 clusters (1) Taungoo urban area, (2) Lebu model village and (3) in front of Taungoo University campus. Moreover some retail shops are under construction replaced on the paddy fields near Taungoo University campus (Figure 4). Thus their future linear distribution pattern may be filled with retail shops along either sides of these roads between Taungoo Myoma and Taungoo University (Figure 5). Therefore the agricultural landuse pattern is gradually filled with commercial landuse between Taungoo University and Taungoo Myoma. Then, along this road many retails are still under construction.



**Figure 7.** Distribution of retail shops along Bohmu Phokun and Taungoo University Roads

**Source:** Field observation (February, 2017)



**Figure 8.** Linear directional mean of retail distribution

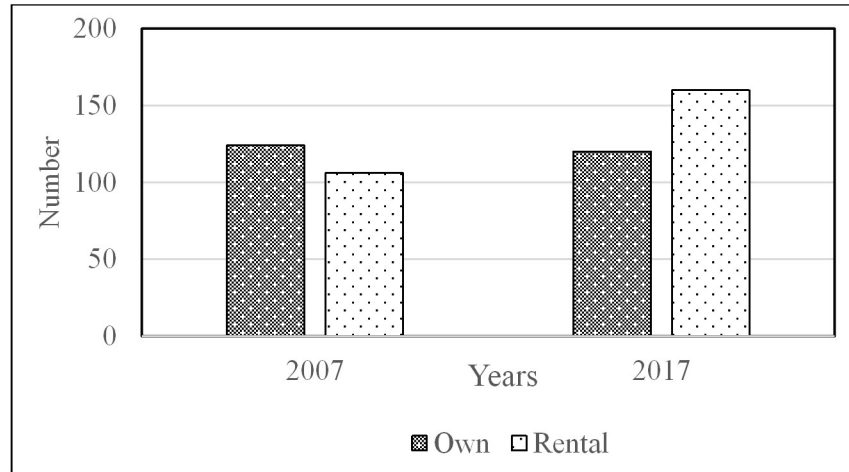
Source: Field observation (February, 2017)

**Table 3. Locational characteristics of retail shops**

	2007	%	2017	%
Owner	124	53.91	120	42.86
Rent	106	46.09	160	57.14
<b>Total</b>	<b>230</b>	<b>100</b>	<b>280</b>	<b>100</b>

Source: Field observation (February, 2017)

From table 3, the total retail shops along this road are increased within 11 years in relation to many factors in particularly establishment of Taungoo University. In 2007, the total retail shops 230, of which 53.91% are owner while 46.09 % are rental, in construct, in 2017, 42.86 % of the total retail shops are owner and 57.14% are rental. Therefore, the percentage of the owner and rent for the two years are quite different this is because some retail shops migrated from other lane or streets. (Figure 9)



**Figure 9.** The number of rental /ownerships of retail shops  
**Source:** Field observation

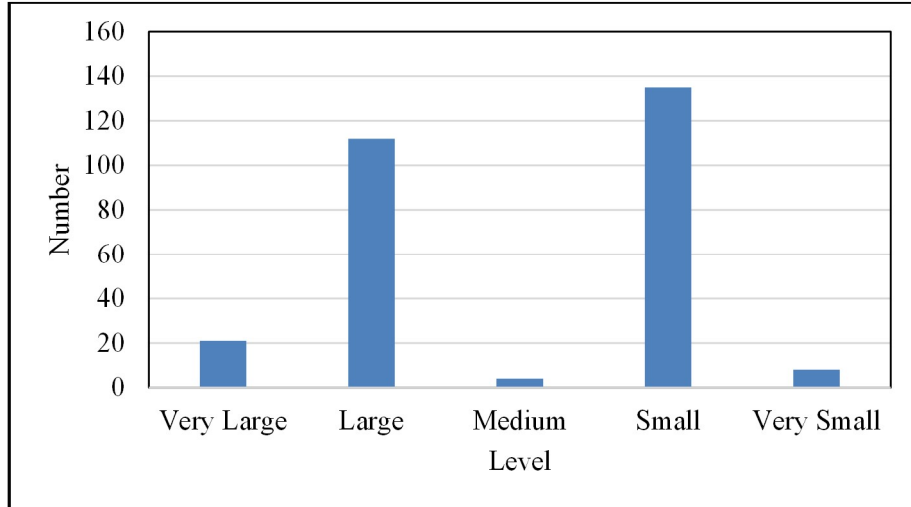
### Level of retail shops

The level of retail shops in this study represent size, conditions, and style of retail shops along Bohmu Phohun and Taungoo University roads. The former type of retail in Taungoo is very simple style and small (Plate a and b) but according to this observation the types of retail activities are changed into modern styles. In 2017 interview result, some company and bank which are special kind of retail shops along this road. Moreover some retail shops like Win Mart is constructed as super market like Yangon style (Plate. e). The reason for this variation of retail level is the nearness of Yangon capital also called economic capital of Myanmar.

**Table 4.** The level of retail shops

Level	Number	%
Very Large	21	7.50
Large	112	40.00
Medium	4	1.43
Small	135	48.21
Very Small	8	2.86
<b>Total</b>	<b>280</b>	<b>100.00</b>

**Source:** Field observation (February, 2017)



**Figure 10.** Level of retail shops (2017)

Source: Based on table 4.

### Style of retail shops

In this paper, the style of retail shops are represented by the size because the size, and style of retail shops are related. The larger the size of retail shops can sell more types of goods which is one of the most attractive side for customers. The style of retail shops describe the urban growth and development of economic activities. In the past situation, the retail shops along this road are very simple in structure but current situation very modernized. Some retail shops are company function such as Honda cycle, T.Com mobile services, OPPO mobile sales and services center. Red Rose is very popular store and also the style is modernized. (Plates c, d, f, g, h, i)



(a)



(b)

**Plate 1.** Former retail shop styles (a, b)

Source: Photo taken by February, 2017



(c)



(d)

**Plate 2.** Present styles of retail shop (c, d, e, f, g, h, i)

Source: Photo taken by February, 2017.



(e)



(f)



(g)



(h)



(i)

### **Conclusion and discussion**

The urban growth of any towns and cities describes with economic activity including whole sales and retail functions. This research studies the comparative analysis of retail shops along Bohmu Phokun and Taungoo University roads for the years 2007 and 2017 as the presented three questions. The increased number of retail shops within 11 years is 50 but the styles and the types are very different, because the distance between Taungoo and Yangon is 234.96 km (146 miles) which is capital city of Myanmar and only four hours for time travel. Therefore the modern styles of retail shops are diffused to Taungoo. The spatial variation of retail shops along this road differ between 2007 and 2017 according to the consumers need as the modern fashion of students and local people. The landuse pattern along either sides of this roads continuously changed from agricultural landuse to commercial landuse as the natural population increased of Taungoo and the students of Taungoo University, Teacher Training College, Computer University and Government Technology College (GTC).The development of retail shops causes some adverse effects on transportation of Bohmu Phokun road that sometimes traffic jam and accident. Therefore, the systematic management of retail function and transportation facilities need to be practiced along this road.

### **Acknowledgement**

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## **References**

- Thin Thin Khaing, Moe Moe, Thidar Naing, (2007): Spatio-temporal of retail shops along the Bohmu Phokun and Taungoo University Roads, Published, Vol.8, 2008, MAAS Journal.
- Ma War War Win, (2003) Geographical study of retail shops in Lathar Township. M.A. Project paper submitted to Department of Geography, Yangon University.
- Yin Mar Wai (2003). Distribution pattern of retail shops within Shwepyitha Township. Unpublished M.A. (Project) Paper submitted to the Department of Geography, Yangon University.

### ***Online sources***

<https://www.shopify.com/encyclopedia/retail>