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Demographic and Night Market Local Trader Challenges: A Non-Parametric Analysis

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Abstract: The growths of night markets have played crucial roles in Malaysian socio-economic development. The night market serve as a part of informal economy and becoming ideal places to get every day to day merchandise as well as leisure activity for local and non-local residents. The needs to understand the characteristics of the night market local traders will help the local authorities to understand the profile of the business incubators. Conversely this growth will lead to many challenges faced by the traders. Therefore, the purpose of this study is to determine the significance differences between night market local trader demographic characteristic with the challenges faced by using Chi-square analysis. The findings suggest educational level has significant differences towards the poor management challenges faces by them.

Key words: Demographic characteristics, business challenges, local night market trader, Chi-square, poor

INTRODUCTION

Market simply can be understood as a place where products are bought and sold. Economic perspective will justify where there is a producer and household as consumer in the process of market forces to achieve a possible higher utility in determining the equilibrium of price and quantity. The activity of bought and sold is a main activity in economic concepts either it occur in a very formal or informal market in any economics in the world. In development economic perspective there is a great discussion about informal sector.

According to Chin and Munshid (2015) explaining on lacking of literature defining the terms of informal sector. In this particular study, the definition for the informal sector is referring to the definition provided by International Labor Organization (ILO) which refers to very small-scale units producing and distributing goods and services and consisting largely of independent, self-employed family labor and/or a few hired workers or apprentices. In other words activity in informal sector can be simplify as operation at low level of productivity with very little capital or none at all which generally provide very low irregular income as well as highly unstable employment.

Geertz (1987) classified the economies operating in informal economy as bazaar economy and firm centered economies. The firm centre economy is where trade is organizing a variety of goods and services at fixed and permanent places while bazaar organize the bought and sold activity at various spot and a periodic one.

Due to rapid changes in economy environment especially in the marketing system of many cities in developing country, the bazaar sector was faded and replace by night market. Night markets were a common phenomenon in Malaysia and had gained community recognition and acknowledge by the local and national economy that contributed significantly to the informal economy. Some scholars agreed the night market categorized as informal sector in economy and contributed great significance in many developing economies (Timothy and Wall, 1997) and becomes the most popular tourism attractions (Hsieh and Chang, 2006) as well as suburban shopping centres (Ibrahim and Leng, 2003).

According to the Department Statistics of Malaysia Table 1 and 2 showed the performance of the distributive trade sector increased to 5.9% in fourth quarter 2015. This increase was propelled by Retail trade sub-sector (7.5%), Motor vehicles (6.9%) and Wholesale trade (4.5%). On a quarterly basis, sales value showed an increase of 2.4% from RM252.3 to RM258.4 billion. Retail Trade sub-sector recorded an increase in sales value of RM6.7 billion or 7.5% as compared to the corresponding quarter of the previous year. On a quarterly basis, sales value of this sub-sector increased by 3.5%. Year-on-year, the number of persons engaged increased by 2.5% or 24168 persons. The number of persons engaged increased by 0.5% or 4475 persons in this quarter as compared to the preceding quarter as in Table 1. Night market is one of the segments in retail trade sub-sectors which indirectly contribute

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Table 1: Performance of distributive trade (sales value)

Sub-sector	(RM million)	Changes (%) YoY	QoQ
Distributive trade	247 654	7.10	1.5
Wholesale trade	120463	4.00	-0.2
Retail trade	92194	11.3	3.2
Motor vehicles	34996	7.50	3.0

Table 2: Performance of distributive trade (number of engaged person)

Sub-sector	(RM million)	Changes (%) YoY	QoQ
Distributive trade	1641685	2.9	1.5
Wholesale trade	414951	4.4	2.3
Retail trade	979021	2.3	1.1
Motor vehicles	247713	2.7	1.8

Department of statistics, Malaysia

to this positive progress. This showed that night market in Malaysia has been has recognized as one of the important economic activities contributed to the Gross National Income in Malaysia.

In developing countries such as Malaysia, the need of jobs in officially licensed enterprises are scarce much of the population makes a living by working outside the official tax and regulatory systems which lead them to venture into night market business especially to the young and pensioner. These people who make up the informal sector are innovators, skilled at surviving and sometimes prospering in a highly regulated environment with a lot of challenges.

In this case, the profits from this night market operation will be the principal source of income for entrepreneurs and their families and these profits contribute to the well-being of communities including economic support for culturally important religious and public celebrations and for infrastructure development (Toledo-Lopez and Pichardo, 2012).

Night markets in Malaysia have been operated in Malaysia since 1969 and have been through to several of policies changes (Ishak *et al*., 2012) and can possibly turn into the following prominent business visionaries to the local traders due to small capital needed to begin a business (Khomar *et al*., 2012). The night market represented an alternative to mainstream supermarket shopping where customers could do their shopping in a friendly and relaxed atmosphere.

Night markets are commonly known as 'Pasar Malam' by the local in Malaysia which literally means night market and the 'Pasar' being related to 'bazaar' in Persian. A 'Pasar Malam' is a street market in Malaysia which operate at night and are generally dedicated to more leisurely strolling, shopping, eating and typically open-air markets. These markets are set up temporarily for the night; vendors drive to neighborhoods 2-3 h before the actual start time to set up their booths.

In order to participate in a 'pasar malam', vendors are required to obtain a license from the local municipality and be able to display it if and when inspected. Vendors are not supplied with any other facilities. Most are able to provide for themselves with electric generators and trucks that have storage space for equipment. In order to maintain their petty business this is the first step for them to prepare before seriously engaged in this activity. Despite of common issue discuss in previous research such as hygiene knowledge (Sun *et al*., 2012) sales performance (Salleh *et al*., 2012) shopper perception (Ibrahim and Leng, 2003) limited number of study discuss about the entrepreneurial challenges from the vendor itself on management capability. Do they have enough knowledge and experience to operate the business activity? Does their profile background support the survival of their business?

Therefore, this study attempts to identify the differences between demographic characteristic with poor management challenges as well as the significance differences among night market local trader in operating their small scale businesses. It is crucial to understand those challenges faces by them in order to identify opportunities and potential implementation strategies to enhance this type of entrepreneurial activities as well as contribute to the domestic growth in the country.

MATERIALS AND METHODS

The study was conducted at the 'Pasar Karat' or flea market of Southern region of Peninsular Malaysia with 31 total of night market trader in order to achieve both objectives. The selection area based on the following justification: night market business conducted in urban area. The placed is the popular shopping spot for locals as well as tourists. This study involved field studies of the night market trader who were interview with a set of questionnaire used to record the information. The develop questionnaire for this study is used to obtain demographic information as well as the poor management challenges that faced by them.

First objective in this study is to identify the differences between demographic characteristic with poor management challenges. Operationally, demographic characteristics is defined as background information that give social characteristics of night market local trader through the variables in this study such as gender, age and education level by utilized the cross-tabulation analysis. While poor management data was analyzed from the aspect of inefficiency of business management, no specialization jobs description, lack of expertise, lack of experience and from the production capacity control. The item was ranked with 1 = No problem, 2 = have problem

and can be overcome, 3 = serious problem and cannot be overcome, 4 = serious problem and cannot be overcome and 5 = very serious problem and overcome by assistance.

Cross-tabulation analysis is used to aggregate and jointly display the distribution of two or more variables by tabulating their results one against the other in 2-dimensional grids, also known as contingency table analysis and most often used to analyze categorical data as in this study. The table involves arranging the "levels" of the two variables along the margins: the r "levels" of one factor comprise the rows of the table, while the c "levels" of the second factor comprise the columns. The table itself records the number of observations belonging to each of the r ×c "combination" of levels. First objective will using cross-tabulation analysis due to wealth of information about the interrelationships and interactions between variables that can be provided. Since cross-tabulation analysis provide a basic picture of how two variables inter-relate, this patterns of differences or interaction can be identify by comparing certain cells contain disproportionately large (or small) numbers of cases then this suggests that there might be a pattern of interaction.

The difference or any pattern of interaction between the group of study which refer to gender, age and educational level with poor management challenges items will be further confirm by significant test whether there is a significant difference or not. The χ^2-test for independence or test of homogeneity used to analyze these differences. In other words, the χ^2-test of Independence is used to determine if there is a significant relationship between two nominal (categorical) variables. The frequency of one nominal variable is compared with different values of the second nominal variable. The practice of using test of independence; the χ^2-test is applied to a contingency table or cross tabulation. The data can be displayed in an R×C contingency Table 1 and 2 where R is the row and C is the column. The contingency table represented the observed counts of the party affiliation and opinion for those surveyed. To conduct this test we compute a χ^2-test statistic where we compare each cell's observed count to its respective expected count. This χ^2-test statistic is calculated as follows:

$$x^2 = \sum_{i=1}^{n} \frac{(O_i - E_i)^2}{E_i}$$

This equation showed O stands for the observed frequency and E stands for the expected frequency. The decision made by the probability of getting this test statistic value or one more extreme (p-value approach). The null hypothesis states that the variables are independent while support for the alternative hypothesis suggests that the variables are related but the relationship is not necessarily causal in the sense that one variable "causes" the other.

Chi-square statistic is the primary statistic used for testing the statistical significance of the cross-tabulation table. The χ^2-test whether or not the two variables are independent. If the variables are independent (have no relationship) then the results of the statistical test will be "non-significant" and we "are not able to reject the null hypothesis", meaning that we believe there is no relationship between the variables. If the variables are related then the results of the statistical test will be "statistically significant" and we "are able to reject the null hypothesis", meaning that we can state that there is some relationship between the variables.

Although, the Chi-square independence test will run in SPSS, four assumptions of the research data must be satisfied before the χ^2-test is used to analyze the data. First, the data must be in the form of nominal or ordinal measuring scale. Second, the sample size must be smaller than population size and can be generalize to the population. Third, fulfill the assumption of independent and identically distributed variable which mean the data should be conducted on each subject separately. Last assumption, χ^2-test assumes that each cell has an expected frequency of five or more. The first three assumptions are mainly theoretical and if the last assumption did not meet the assumption, the distribution method will be determined by Fisher's. Fisher's exact test (Fisher, 1925) assumes that the row and columns total are fixed and prefer Barnard's test (Barnard, 1945) as alternative. Despite the arguments, many authors suggested that Fisher's exact test (Mehta and Hilton, 1993) can nonetheless be safely used. In this research, SPSS is used for both Crosstab Analysis and χ^2-test. On the basis of the above the following hypotheses were developed and tested.

List of hypotheses

Demographic (age, gender and educational level) and poor management (inefficiency):

- H_0: Inefficiency and age are independent
- H_1: Inefficiency and age are related
- H_0: Inefficiency and gender are independent
- H_1: Inefficiency and gender are related
- H_0: Inefficiency and educational level are independent
- H_1: Inefficiency and educational level are related

Demographic (age, gender and educational level) and poor management (no specialization):

- H_0: No specialization jobs description and age are independent
- H_1: No specialization jobs description and age are related
- H_0: No specialization jobs description and gender are independent
- H_1: No specialization jobs description and gender are related
- H_0: No specialization jobs description and educational level are independent
- H_1: No specialization jobs description and educational level are related

Demographic (age, gender and educational level) and poor management (lack of expertise):

- H_0: lack of expertise and age are independent
- H_1: lack of expertise and age are related
- H_0: lack of expertise and gender are independent
- H_1: lack of expertise and gender are related
- H_0: lack of expertise and educational level are independent
- H_1: lack of expertise and educational level are related

Demographic (age, gender and educational level) and poor management (lack of experience):

- H_0: lack of experience and age are independent
- H_1: lack of experience and age are related
- H_0: lack of experience and gender are independent
- H_1: lack of experience and gender are related
- H_0: lack of experience and educational level are independent
- H_1: lack of experience and educational level are related

Demographic (age, gender and educational level) and poor management (production capacity control):

- H_0: Production capacity control and age are independent
- H_1: Production capacity control and age are related
- H_0: Production capacity control and gender are independent
- H_1: Production capacity control and gender are related
- H_0: Production capacity control and educational level are independent
- H_1: Production capacity control and educational level are related

RESULTS AND DISCUSSION

This study presents finding on the significant of differences between demographic characteristics and poor management. Between three characteristics of demographic (age, gender and educational level) and poor management (inefficiency of business management, no specialization jobs description, lack of expertise, lack of experience and the production capacity control) only educational level shows the interrelationship and has significance differences with inefficiency, no specialization jobs description, lack of expertise and lack of experience. Table 3-6 shows the result. From Table 3-6 there are differences between education and inefficiency. The standardized residual values of 4 (SPM-not faces any problem), 8 (STPM-problem handled easily) 1.5 (Primary-serious problem, can be handle if the aid receive) contribute to the difference. The Pearson χ^2-test value of 35.415 at p = 0.000 shows that there is significant difference in inefficiency between Primary, SPM and STPM education level.

Table 3: Frequency distribution of poor management based on education level (inefficiency)

Poor management	Pri.	SPM	STPM	Dip.	Oth.
Std. Residual[1]	-0.7	0.4	0.0	-0.2	-0.7
Std. Residual[2]	-0.5	-0.2	0.8	0.3	-0.5
Std. Residual[3]	1.5	-0.1	-0.7	0.1	-0.5
Std. Residual[5]	-0.2	-0.8	-0.3	-0.5	5.4

$\chi^2 = 35.415$; df = 12; p = 0.000*; H_0: inefficiency and educational level are independent; H_1: inefficiency and educational level are related

Table 4: Frequency distribution of poor management based on education level (No specialization jobs description)

Poor management	Pri.	SPM	STPM	Dip.	Oth.
Std0. Residual[1]	0.7	0.5	-10.0	-0.3	-0.7
Std0. Residual[2]	-0.5	-0.1	0.7	0.1	-0.5
Std0. Residual[3]	-0.4	-0.4	-0.5	10.2	-0.4
Std0. Residual[4]	-0.3	-0.3	20.4	-0.7	-0.3
Std0. Residual[5]	-0.2	-0.8	-0.3	-0.5	5.4

$\chi^2 = 41.878$; df = 16; p = 0.000*; H_0: no specialization jobs description and educational level are independent; H_1 : no specialization jobs description and educational level are related

Table 5: Frequency distribution of poor management based on education level (Lack of expertise)

Poor management	Pri.	SPM	STPM	Dip.	Oth.
Std. Residual[1]	0.9	0.2	-0.9	0.0	-0.6
Std. Residual[2]	-0.4	0.1	-0.6	0.6	-0.4
Std. Residual[3]	-0.5	0.5	0.6	-0.7	-0.5
Std. Residual[4]	-0.3	-1.1	2.4	0.8	-0.3
Std. Residual[5]	-0.2	-0.8	-0.3	-0.5	5.4

$\chi^2 = 42.811$; df = 16; p = 0.000*; H_0: lack of expertise and educational level are independent; H_1: lack of expertise and educational level are related

Table 6: Frequency distribution of poor management based on education level (lack of experience)

Poor management	Pri.	SPM	STPM	Dip.	Oth.
Std. Residual[1]	0.5	-0.1	0.7	-0.1	0.8
Std. Residual[2]	-0.4	0.4	-0.6	-0.1	-0.4
Std. Residual[3]	-0.4	-0.1	-0.6	0.8	-0.4
Std. Residual[4]	-0.2	0.4	-0.3	-0.5	-0.2
Std. Residual[5]	-0.2	-0.8	-0.3	-0.5	5.4

$\chi^2 = 34.100$; df = 12; p = 0.005*; H_0: lack of experience and educational level are independent; H_1 : lack of experience and educational level are related
1: Not faces any problem; 2: has problem, handled easily; 3: has serious problem, couldn't handle easily; 4: has serious problem but can be handled easily; 5: has serious problem, can be handle if the aid received; * Significant at confidence level 0.05 (two-tailed)

There are differences also between education and no specialization jobs description. The standardized residual values of 7 (Primary-not faces any problem), 7 (STPM-problem handled easily), 1.2 (Diploma-serious problem, couldn't handle easily), 2.4 (STPM-has serious problem but can be handle easily) contribute to the difference. Thus, the Pearson χ^2-test value of 41.878 at $p = 0.000$ shows that there is significant difference in no specialization jobs description between Primary, SPM, diploma and STPM education level.

Other there's differences between education level and lack of expertise. The standardized residual values of 9 (Primary-not faces any problem), 6 (Diploma-problem handled easily), 6 (STPM-serious problem, couldn't handle easily) and 8 (Diploma-has serious problem but can be handle easily) contribute to the difference. For this combination, the Pearson χ^2-test value of 42.811 at $p = 0.000$ shows that there is significant difference in lack of expertise between Primary, SPM, diploma and STPM education level.

And the last combination is the differences between education level and lack of experience. The standardized residual values of 7 (STPM-not faces any problem), 4 (SPM-problem handled easily), 8 (Diploma-serious problem, couldn't handle easily) and 4 (SPM-has serious problem but can be handle easily) contribute to the difference. The Pearson χ^2-test value of 34.100 at $p = 0.005$ shows that there is significant difference in lack of experience between Primary, SPM, diploma and STPM education level.

CONCLUSION

The result of this study has shown that inefficiency, no specialization jobs description, lack of expertise and lack of experience under poor management with education level are dependent. In other words education level influenced the night local trader to manage the business from the aspect of inefficiency, no specialization jobs description, lack of expertise and lack of experience. Therefore, we concluded that demographic characteristic of educational level is required for the night market local trader to manage their business.

This result interpret that the local night market trader need knowledge or course or maybe short-term training in order to manage their business since they had variety of educational level background. In light of the findings in this research, we strongly suggest the respective agencies to provide a compulsory free-course or hands-on training for local night market trader. This course should be organized periodically and to new applicant of night market license on issues of business operation management, account management and business development. By this strategy, we can assist the local night market trader to manage their business efficiently in order to confirm the survival of this category of local night market trader.

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