ORIGINAL RESEARCH PAPER

Management

MEDICINE PURCHASING BEHAVIOR OF CONSUMERS AT THE PRIVATE PHARMACIES IN PHONHONG DISTRICT, VIENTIANE PROVINCE, LAO PDR

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ABSTRACT

The purpose of this research was to study medicine purchasing behavior of consumers at the drugstores in phonhong district Vientiane Province Lao PDR, explore the marketing mix impact on medicine purchasing behavior and compare the purchasing behavior of the consumers.
The sample group was 400 people of the consumer in Phonhong district Vientiane Province Lao PDR, the questionnaire was used as a data collection tool, the statistics used in data analysis were percentage, mean, standard deviation and hypothesis tested by chi-square.

1 Background of the study

Diseases and illnesses reflect us to seeing the diversity of human behavior in the sense of finding a way to prevent oneself, which mainly focuses on medication to ease symptoms when feel sick that is known on behalf of self-medication in the last few years the world production of drugs has amount increased. Partly as a result from using drugs for treatment on oneself of consumers in many countries, through drug distribution sources that are close to consumers such as OTC, pharmacy, clinics etc. Which consumers tend to use self-medication when their feel sick [1-4].

Consumers are considered to be at the key of every business at present, including pharmaceutical distribution business, which is competitive in many ways to attract attention among consumers. Currently, the number of pharmacies in Laos has increased to 2,093 stores within the past few years [5]. Lao PDR is a landlocked country that has been classified by the World Bank as a low middle income country per capita GDP was 2567$ (2019). The majority of the population lives in rural areas, overall, the Populace who live in this area, will mainly engaged in agriculture. According to the consumption Survey of populace in Laos by the National Statistics, every 5 years ago, when asked about the self-healing behaviors during the illness of the Lao populace, it was found that 40% was purchased medicine to treat themselves and not to go to treatment in hospital for many reasons that there is a problem traveling to the hospital combined with the relatively high cost and poor quality service. Therefore, Lao people purchase medicine from pharmacies to treatment themselves instead when feel sick [6].

The Lao government has endorsed the National Drug Policy (NDP) in cooperation with the Ministry of Public Health to survey drug at pharmacies. Including the development of quality pharmacies with the support from the Swedish International Development Cooperation Agency (Sida)[7] to prepare preparation allow the pharmacy become a primary public health system for populace to have access to good quality medicines with various types of services that are different when considering location, pharmacy decoration, price, pharmacist including the quality of service that customers pay special attention, because pharmacies are public health facilities that are closes to consumers, is a place that provides consultation on health problems for consumers secondary from the hospital, under the many inconvenience conditions of consumers, sometimes each access to the hospital is also a problem such as having to wait long queue, the high cost of health services etc. Under the economic problems of each family, the populace chooses to consult with the pharmacist at the pharmacy instead when there are minor

health problems

In Lao PDR, there are 3 levels of retail pharmacy namely retail pharmacy level 1, retail pharmacy level 2, retail pharmacy level 3. It is different qualification of holding pharmaceutical registration, approved by Ministry of Health, which is determined to align with capacity and condition of pharmacy in establishing.

- Retail pharmacy level 1: A person who graduated with a certificate in pharmaceutical at high diplomas.
- Retail pharmacy level 2: A person who graduated with a certificate in pharmaceutical at middle level.
- Retail pharmacy level 3: A person who graduated whit a certificate in pharmaceutical at primary level. In urban area, central city of districts and provincial which have to have pharmacy level 1 and pharmacy level 2, Ministry of Health authorized pharmacy level 3 upon appreciated conditions. Now, primary education and middle education was up level to high education [8]

2 Objective of the study

The study is aimed to:
1. To examine medicine purchasing behavior of consumers at the drugstores in phonhong district Vientiane Province Lao PDR
2. To explore the marketing mix impact on medicine purchasing behavior.
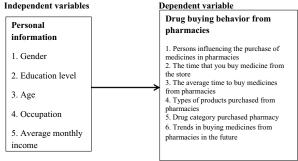3. To compare the purchasing behavior of the consumers in the study area

Independent variables

Dependent variable

Personal information

1. Gender
2. Education level
3. Age
4. Occupation
5. Average monthly income

Drug buying behavior from pharmacies

1. Persons influencing the purchase of medicines in pharmacies
2. The time that you buy medicine from the store
3. The average time to buy medicines from pharmacies
4. Types of products purchased from pharmacies
5. Drug category purchased pharmacy
6. Trends in buying medicines from pharmacies in the future

Figure 1: Conceptual framework

3. Methodology

The simple group in this research was 400 consumers who bought medicines from private pharmacies in Vientiane province by using questionnaires as the tools to collected information. The questionnaire consist of 3 parts: part 1: personal information which has the characteristic, Part II:

opinion of consumer on marketing mix of pharmacies consist of 5 sides, there are product, price, place, promotion and people the interval scale has 5 levels as follows: (1)most, (2)very, (3)moderate, (4)little and (5)least respectively, Part III: medicine purchasing behavior of consumers. The researcher performed data analysis by using the program Statistical Package for the Social Sciences (SPSS Software Program version 25) to analyze descriptive data and test hypotheses. Describe general information of the respondents by using frequency and percentage to descriptive statistics, for describe medicine purchasing behavior of consumers at private pharmacy in Phonhong District, Vientiane Province by descriptive statistics there are Frequency and Percentage and test the research hypothesis by using inferential statistic according to the assumptions by using chi-Square (X^2- test) statistics used to test independence.

Results
Part 1:
Analysis of personal information classified by gender, age, education level, occupancy and income. The total respondents were 400 by using frequency and percentage. All information is indicated in table 1:

Table 1: General Characteristics of respondents

Characteristics of respondents	Frequency	Percentage
1.　　Gender		
Male	194	48.50
Female	206	51.50
2.　　Age		
≤ 15	11	2.75
16-25	79	19.75
26-35	137	34.25
36-45	152	38.00
46 more	21	5.25
3.　　Education		
No education	17	4.25
Less than high school	12	3.00
High school	60	15.00
Associate's degree	179	44.75
Bachelor's degree	114	28.50
Postgraduate	18	4.50
4.　　Occupation		
Student	59	14.75
Employee	99	24.75
Farmer	108	27.00
Vender	88	22.00
Housewives	46	11.50
Other (specify)……………	0	0
5.　　Income		
≤ 1,000,000 LAK	85	21.25
1,100,000-1,500,000 LAK	136	34.00
1,600,000-2,000,000 LAK	102	25.50
2,100,000-2,500,000 LAK	36	9.00
2,600,000-3,000,000 LAK	23	5.75
More than 3,100,000 LAK	18	4.50
Total	**400**	**100.00**

Gender: The majority of respondents in this research are female. There are 206 female representing a percentage 51.50% and 194 male representing a percentage 48.50%.

Age: The majority of respondents of age are in the range 36-45 years old, there are 152 respondents, which 38.00%, followed by the 26-35 years old, there are 137 respondents, representing 34.25%, who are between 16-25 years old, with 79 respondents, representing 19.75%, above 46 years old, there are 21 respondents representing 5.25% and less than 15 years there are 11 respondents with 2.75 % respectively.

Education level: Most were in associate's degree amount 179 respondents accounted for 44.75%, follow by 114

respondents at bachelor's degree, accounting for 28.50%, high school there are 60 respondents with 15.00%, postgraduate there are 18 respondents representing 4.50%, no education 17 respondents with 4.25% and there are 12 respondents was less than high school representing 3.00%.

Occupation: Most respondents were farmer, there are 108 respondents, representing 27.00%, follow by 99 were employee, representing 24.75%, who is the vender there are 88 respondents with 22.00%, follow by student there are 59 respondents representing 14.75% and 46 respondents were housewives representing 11.50%.

Income: there are 136 respondents have an average income 1,100,000-1,500,000 per month which are 34.00%, followed by 102 respondents who have income ≤ 1,500,000-2,000,000 LAK, equal to 25.50%, there are 85 respondents who have income 1,000,000LAK with 21.25%, there are 36 respondents representing 9.00%, who have income 2,100,000-2,500,000 LAK, there are 23 respondents who have income between 2,600,000-3,000,000 LAK which are 5.75% and more than 3,100,000 LAK have 18 respondents representing 4.50% respectively.

2) The marketing mix factors of pharmacies consist of product, price, place, promotion and personal.

Table 2: Demonstrates Mean ($\overline{x}$) and Standard Deviation (S.D) of the level of Medicine purchasing behavior of consumers at private pharmacies in Phonhong district Vientiane province on marketing mix of product side

Consumer's opinions on marketing mix of pharmacies	Level of influence on purchasing behavior		
Product		**S.D**	**Opinion Level**
1. A variety of medications in pharmacy	3.30	0.99	Moderate
2. The medicine inside the pharmacy was orderly managed	3.28	0.84	Moderate
3. The packaging of product is suitable	2.86	0.92	Moderate
4. Medicine has quality	3.81	0.51	Much
Total	3.31	0.39	Moderate

From the table 5 the results of the analysis of the opinions of consumers on the factors Marketing of pharmacies in Phonhong District, Vientiane province, in terms of product in overall were in Moderate ($\overline{x}$ = 3.31, S.D = 0.39). When considering each item found that respondents have opinion in much level items medicine has quality ($\overline{x}$ = 3.81, S.D = 0.51), moderate level are 3 items such as a variety of medications in pharmacies ($\overline{x}$ = 3.30, SD = 0.99), the medicine inside the pharmacy was orderly managed ($\overline{x}$ = 3.28, SD = 0.84) and the packaging of product is suitable ($\overline{x}$ = 2.86, SD = 0.92) respectively.

Table 3: Demonstrates Mean ($\overline{x}$) and Standard Deviation (S.D) of the level of Medicine purchasing behavior of consumers at private pharmacies in Phonhong district Vientiane province on marketing mix of price side.

Consumer's opinions on marketing mix of pharmacies			Level of influence on purchasing behavior
Price	**$\overline{x}$**	**S.D**	**Opinion Level**
1. Appropriateness of drug prices in the pharmacies.	3.80	0.62	Much
2. The price is negotiable	3.76	0.57	Much
3. Drug price in this pharmacy is not expensive when compared to other pharmacy.	3.21	0.72	Moderate
Total	3.59	0.44	Much

From the table 6 the results of the analysis of the opinions of consumers on the factors Marketing of pharmacies in Phonhong District, Vientiane province, in terms of price in overall were in Much ($\bar{X}$= 3.59, SD = 0.44) and considering each item found that appropriateness of drug prices in the pharmacies ($\bar{X}$= 3.80, SD = 0.62), the price is negotiable ($\bar{X}$= 3.76, SD = 0.57) and drug price in this pharmacy is not expensive when compared to other pharmacy. ($\bar{X}$= 3.21, SD = 0.72).

Table 4: Demonstrates Mean ($\bar{X}$) and Standard Deviation (S.D) of the level of Medicine purchasing behavior of consumers at private pharmacies in Phonhong district Vientiane province on marketing mix of place side

Consumer's opinions on marketing mix of pharmacies			Level of influence on purchasing behavior
Place	$\bar{X}$	S.D	Opinion Level
1. Pharmacy located is convenient to come	3.61	0.62	Much
2. The label of pharmacy can be seen clearly	3.75	0.51	Much
3. The pharmacy has enough parking	3.59	0.60	Much
4. Opening and closed is convenient for you	3.08	0.79	Moderate
Total	3.51	0.35	Much

From the table 7 the results of the analysis of the opinions of consumers on the factors Marketing of pharmacies in Phonhong District, Vientiane province, in terms of location in overall were in much ($\bar{X}$= 3.51, SD = 0.35) and considering each item found that pharmacy located is convenient to comes ($\bar{X}$= 3.61, SD = 0.62), the label of pharmacy can be seen clearly ($\bar{X}$= 3.75, SD = 0.51), the pharmacy has enough parking ($\bar{X}$= 3.59, SD = 0.60) and opening and closed is convenient for you ($\bar{X}$= 3.08, SD = 0.79) respectively.

Table 5: Demonstrates Mean ($\bar{X}$) and Standard Deviation (S.D) of the level of Medicine purchasing behavior of consumers at private pharmacies in Phonhong district Vientiane province on marketing mix of promotion side.

Consumer's opinions on marketing mix of pharmacies			Level of influence on purchasing behavior
Promotion	$\bar{X}$	S.D	Opinion Level
1. There is brochure recommending about drug	2.01	0.78	Little
2. There are distributed health supplements trial	1.98	0.84	Little
3. There is a discount for regular customer	3.43	0.74	Much
Total	2.47	0.62	Little

From the table 8 the results of the analysis of the opinions of consumers on the factors Marketing of pharmacies in Phonhong District, Vientiane province, in terms of promotion in overall were in little ($\bar{X}$= 2.47, SD = 0.62) and considering each item found that much in item there is a discount for regular customer ($\bar{X}$= 3.43, SD = 0.74), little in terms there is brochure recommending about drug ($\bar{X}$= 2.01, SD = 0.78), and there are distributed health supplements trial ($\bar{X}$= 1.98, SD = 0.84) respectively.

Table 6: Demonstrates Mean ($\bar{X}$) and Standard Deviation (S.D) of the level of Medicine purchasing behavior of consumers at private pharmacies in Phonhong district Vientiane province on marketing mix of personal.

Consumer's opinions on marketing mix of pharmacies			Level of influence on purchasing behavior
Personal	$\bar{X}$	S.D	Opinion Level
1. Knowledge and ability in providing information of pharmacist	2.95	0.77	Moderate
2. Pharmacist is friendly with customer	3.10	0.76	Moderate
3. The liquidity in taking the drug of pharmacist in pharmacy	2.86	0.92	Moderate
4. Pharmacist wears a white ground tiger	2.38	1.75	Little
Total	2.82	0.57	Moderate

From the table 9 the results of the analysis of the opinions of consumers on the factors Marketing of pharmacies in Phonhong District, Vientiane province, in terms of personal in overall were in moderate ($\bar{X}$= 2.82, SD = 0.57) and considering each item found that the knowledge and ability in providing information of pharmacist ($\bar{X}$= 2.95, SD = 0.77), pharmacist is friendly with customer ($\bar{X}$= 3.10, SD = 0.76), the liquidity in taking the drug of pharmacist in pharmacy ($\bar{X}$= 2.86, SD = 0.92) and pharmacist wears a white ground tiger ($\bar{X}$= 2.38, SD = 1.75) respectively.

Information of medicine purchasing behavior of consumer in Phonhong District Vientiane Province

Table 7: Show the frequency and percentage of medicine purchasing behavior of consumer at private pharmacies in Phonhong District Vientiane Province.

Medicine purchasing behavior of consumer	Frequency (n=400)	Percentage
Who is the main decision on each your purchasing		
Yourself	233	58.25
Friend	15	3.75
Boyfriend/Girlfriend	16	4.00
Pharmacist	40	10.00
Family member	96	24.00
Period time that you buy medicine most often from pharmacies		
6:00-10:00	34	8.50
10:01-14:00	100	25.00
14:01-18:00	155	38.75
18:01-22:00	111	27.75
The average time you spend to buy a drug from a pharmacies		
<10 minutes	105	26.25
11-20 minutes	231	57.75
21-30 minutes	56	14.00
>30 minutes	8	2.00
What type of product do you buy from pharmacies		
Medicine	180	45.00
Supplement, Vitamin	164	41.00
Medical equipment	56	14.00
What type of drug do you usually buy from pharmacies		
Analgesics to reduce fever	172	43.00
Cardiovascular drugs	0	0
Respiratory medicine	5	1.25
Gastrointestinal system medicine	33	8.25
Painkillers	79	19.75
Psychotropic drugs	0	0
Hormone drug	14	3.50
Drugs for the treatment of skin diseases	23	5.75
Antibiotic	52	13.00
Herb medicine	22	5.50
Trends of your purchasing behavior in the future from pharmacy in Phonhong district Vientiane province.		
Repurchase	267	66.75
Tell other to come to buy	104	26.00
Stop purchasing	29	7.25
Total	400	100.0

Who is the main decision on each your purchasing: most of the respondents responded by themselves 233 respondents accounting for 58.25%, followed by 96 family member was 24.00%, pharmacist three are 40 respondents represent 10.00%, boyfriend/girlfriend there are 16 respondents with 4.00% and 15 friend represent 3.75%.

Period time that you buy medicine most often from pharmacy: the majority of respondents answered 14:01-18:00 there are 155 respondents representing 38.75%, followed by 111 respondents answered 18:01-22:00 which are 27.75%, while 100 respondents are 10:01-14:00 equally to 25.00% and 6:00-10:00 by 34 respondents which represent 8.50%.

The average time you spend to buy a drug from a pharmacy: most of the respondents answered less than 11-20 minutes there are 231 respondents which represent 57.75%, 105 respondents who used 10 minutes which was 26.25%, 21-30 minutes there are 56 respondents only 14.00% and only 2.00% of 8 respondents used more than 30 minutes.

What type of product do you buy from pharmacies: most of the respondents purchased medicine 180 respondents which represent 45.00%, followed by 164 respondents representing 41.00% purchased supplement, vitamin and 56 respondents bought medical equipment represent 14.00%.

what type of drug do you usually buy from pharmacies: there are 172 who bought Analgesics to reduce fever represent 43.00%, followed by respondents are 79 purchased Painkillers with 19.75%, Antibiotic there are 52 which is 13.00%, 33 consumers bought Gastrointestinal system medicine equal to 8.25%, Drugs for the treatment of skin diseases was 5.75% of 23 respondents, Herb medicine 22 respondents representing 5.50%, there are 14 respondents were 3.50% purchased Hormone drug and purchased Respiratory medicine are 5 respondents represent with 1.25%. As for Cardiovascular drugs and Psychotropic drugs no one answer.

Trends of your purchasing behavior in the future from pharmacy in Phonhong district Vientiane province: most of the respondents responded to repurchased 267 accounting for 66.75%, 104 tell other to come to buy representing 26.00% and 29 respondents stop purchasing was 7.25%.

Part 2:
Consumers with personal information characteristics including gender, age, education, occupation, income and the marketing mix factors in terms of product, price, place , promotion and personal have effect the medicine purchasing behavior of consumers from pharmacies in Phonhong District, Vientiane Province. In terms of who is the main decision on each your purchasing, period time that you buy medicine most often from pharmacy, the average time you spend to buy a drug from a pharmacy, what type of product do you buy from pharmacies, what type of drug do you usually buy from pharmacies and Trends of your purchasing behavior in the future from pharmacy. The statistics used in the analysis is Chi-Square. The variables used the 95% confidence level. So, will reject H_0 and accept H_1 only if the sig. (2- sided) value is less than 0.05

Hypothesis: Incomes have effect to medicine purchasing behavior from pharmacies

Hypothesis 1: The different income has different medicine purchasing behavior of consumer at pharmacies in terms who is the main decision on each purchasing

H_0: Income has no effects toward medicine purchasing behavior of consumer at pharmacies in terms who is the main decision on purchasing

H_1: Income has effects toward medicine purchasing behavior of consumer at pharmacies in terms who is the main decision on purchasing

Table 8: compares the frequency and percentage between income and medicine purchasing behavior of consumer at pharmacies in terms who is the main decision on purchasing

Who is the main decision on purchasing	Income						Total
	≤1,000,000	1,100,000-1,500,000	1,600,000-2,000,000	2,100,000-2,500,000	2,600,000-3,000,000	More 3,100,000	
Yourself	47(11.75%)	80(20.00%)	63(15.75%)	16(4.00%)	18(4.50%)	9(2.25%)	233(58.25%)
Friend	5(1.25%)	1(0.25%)	0(0.0%)	9(2.25%)	0(0.3%)	0(0.0%)	15(3.75%)
Boyfriend/Girlfriend	12(3.00%)	1(0.25%)	3(0.75%)	0(0.0%)	0(0.0%)	0(0.0%)	16(4.00%)
Pharmacist	6(1.50%)	18(4.50%)	8(2.00%)	4(1.00%)	1(0.25%)	3(0.75%)	40(10.00%)
Family member	15(3.75%)	36(9.00%)	28(7.00%)	7(1.75%)	4(1.00%)	6(1.50%)	96(24.00%)
Total	85(21.25%)	136(34.00%)	102(25.50%)	36(9.00%)	23(5.75%)	18(4.50%)	400(100.0%)

$x^2 = 92.980$ Sig. (2-sided) = 0.000

From the table 8 the results of analysis of income has affects the medicine purchasing behavior of consumer at pharmacy in terms who is the main decision on each purchasing found that $x^2 = 92.980$ and Sig. (2-sided) = 0.000 which is less than 0.05 that is reject the main hypothesis H_0 and accept the secondary hypothesis H_1 means that income has effects medicine purchasing behavior of consumer in terms who is the main decision on each purchasing from pharmacy.

Hypothesis 2: The different income has different medicine purchasing behavior of consumer at pharmacies in terms period time that consumers purchase medicine most often from pharmacy

H_0: Income has no effects toward medicine purchasing behavior of consumer at pharmacies in terms period time that consumers purchase medicine most often from pharmacy

H_1: Income has effects toward medicine purchasing behavior of consumer at pharmacies in terms period time that consumers purchase medicine most often from pharmacy

Table 9: compares the frequency and percentage between income and medicine purchasing behavior of consumer at pharmacies in terms period time that consumers purchase medicine most often from pharmacy

Period time purchase medicine	Income						Total
	≤1,000,000	1,100,000-1,500,000	1,600,000-2,000,000	2,100,000-2,500,000	2,600,000-3,000,000	More 3,100,000	
6:00-10:00	8(2.00%)	14(3.50%)	5(1.25%)	6(1.50%)	1(0.25%)	0(0.0%)	34(8.50%)
10:01-14:00	18(4.50%)	29(7.25%)	39(9.75%)	7(1.75%)	5(1.25%)	2(0.50%)	100(25.00%)
14:01-18:00	39(9.75%)	51(12.75%)	37(9.25%)	15(3.75%)	7(1.75%)	6(1.50%)	155(38.75%)
18:01-22:00	20(5.00%)	42(10.50%)	21(5.25%)	8(2.00%)	10(2.50%)	10(2.50%)	111(27.75%)
Total	85(21.25%)	136(34.00%)	102(25.50%)	36(9.00%)	23(5.75%)	18(4.50%)	400(100.0%)

$x^2 = 29.615$ Sig. (2-sided) = 0.013

From the table 9 the results of income analysis has affects the medicine purchasing behavior of consumer at pharmacy in terms period time that consumers buy medicine most often from pharmacy found that $x^2 = 29.615$ and Sig. (2-sided) = 0.013 which is less than 0.05 that is accept the main hypothesis H_0 and reject the secondary hypothesis H_1 means that income has effects on medicine purchasing behavior of consumer in terms period time that consumers purchase medicine most often from pharmacy

Hypothesis 3: The different income has different medicine purchasing behavior of consumer at pharmacies in terms the average time that consumers spend to purchase medicine from pharmacy

H_0: Income has no effects toward medicine purchasing behavior of consumer at pharmacies in terms the average time that consumers spend to purchase medicine from a pharmacy

H_1: Income has effects toward medicine purchasing behavior of consumer at pharmacies in terms the average time that consumers spend to purchase medicine from a pharmacy

Table 10: compares the frequency and percentage between income and medicine purchasing behavior of consumer at pharmacies in terms the average time that consumers spend to purchase medicine from a pharmacy

The average time spend purchase	Income						Total
	≤1,000,000	1,100,000-1,500,000	1,600,000-2,000,000	2,100,000-2,500,000	2,600,000-3,000,000	More 3,100,000	
<10 minutes	35(8.75%)	33(8.25%)	20(5.00%)	8(2.00%)	4(1.00%)	5(1.25%)	105(26.25%)
11-20 minutes	46(11.50%)	80(20.00%)	60(15.00%)	25(6.25%)	13(3.25%)	7(1.75%)	231(57.75%)
21-30 minutes	4(1.00%)	21(5.25%)	19(4.75%)	0(0.0%)	6(1.50%)	4(1.50%)	14(8.00%)
>30 minutes	0(0.0%)	2(0.50%)	3(0.75%)	3(0.75%)	0(0.0%)	0(0.0%)	8(2.00%)
Total	85(21.25%)	136(34.00%)	102(25.50%)	36(9.00%)	23(5.75%)	18(4.50%)	400(100.0%)

$x^2 = 41.903$ Sig. (2-sided) = 0.000

From the table 10 the results of analysis of income analysis has affects the medicine purchasing behavior of consumer at pharmacy in terms average time that consumers spend to purchase medicine from a pharmacy found that $x^2 = 41.903$ and Sig. (2-sided) = 0.000 which is less than 0.05 that is reject the main hypothesis H_0 and accept the secondary hypothesis H_1 means that income has effects on medicine purchasing behavior of consumer in terms average time that consumers spend to purchase medicine from pharmacy.

Hypothesis 4: The different income has different medicine purchasing behavior of consumer at pharmacies in terms what type of product that consumer purchase from pharmacy

H_0: Income has no effects toward medicine purchasing behavior of consumer at pharmacies in terms what type of product that consumer purchase from pharmacy

H_1: Income level has effects toward medicine purchasing behavior of consumer at pharmacies in terms what type of product that consumer purchase from pharmacy

Table 11: compares the frequency and percentage between income and medicine purchasing behavior of consumer at pharmacies in terms what type of product that consumer purchase from pharmacy

type of product consumer purchase	Income						Total
	≤1,000,000	1,100,000-1,500,000	1,600,000-2,000,000	2,100,000-2,500,000	2,600,000-3,000,000	More 3,100,000	
Medicine	36(9.00%)	52(13.00%)	60(15.00%)	15(3.75%)	6(1.50%)	11(2.75%)	180(45.00%)
Supplement, Vitamin	36(9.00%)	61(15.25%)	28(7.00%)	16(4.00%)	16(4.00%)	7(1.75%)	164(41.00%)
Medical equipment	13(3.25%)	23(5.75%)	14(3.50%)	5(1.25%)	1(0.25%)	0(0.0%)	56(14.00%)
Total	85(21.25%)	136(34.00%)	102(25.50%)	36(9.00%)	23(5.75%)	18(4.50%)	400(100.0%)

$x^2 = 23.582$ Sig. (2-sided) = 0.009

From the table 11 the results of analysis of income analysis has affects the medicine purchasing behavior of consumer at pharmacy in terms what type of product that consumer purchase from pharmacy found that $x^2 = 23.582$ and Sig. (2-sided) = 0.009 which is less than 0.05 that is reject the main hypothesis H_0 and accept the secondary hypothesis H_1 means that income has effects on medicine purchasing behavior of consumer in terms what type of product that consumer purchase from pharmacy

Hypothesis 5: The different income has different medicine purchasing behavior of consumer at pharmacies in terms what type of medicine that consumer usually purchase from pharmacy

H_0: Income has no effects toward medicine purchasing behavior of consumer at pharmacies in terms what type of medicine that consumer usually purchase from pharmacy

H_1: Income level has effects toward medicine purchasing behavior of consumer at pharmacies in terms what type of medicine that consumer usually purchase from pharmacy

Table 12: compares the frequency and percentage between income and medicine purchasing behavior of consumer at pharmacies in terms what type of medicine that consumer usually purchase from pharmacy

type of medicine consumer purchase	Income						Total
	≤1,000,000	1,100,000-1,500,000	1,600,000-2,000,000	2,100,000-2,500,000	2,600,000-3,000,000	More 3,100,000	
Analgesics to reduce fever	26(6.50%)	49(12.25%)	51(12.75%)	15(3.75%)	20(5.00%)	11(2.75%)	172(43.00%)
Cardiovascular drugs	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Respiratory medicine	2(0.50%)	1(0.25%)	1(0.25%)	1(0.25%)	0(0.0%)	0(0.0%)	5(1.25%)
Gastrointestinal system medicine	4(1.00%)	9(2.25%)	15(3.75%)	5(1.25%)	0(0.0%)	0(0.0%)	33(8.25%)
Painkillers	18(4.50%)	36(9.00%)	15(3.75%)	3(0.75%)	2(0.50%)	5(1.25%)	79(19.75%)
Psychotropic drugs	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)
Hormone drug	14(3.50%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	0(0.0%)	14(3.50%)

Drugs for the treatment of skin diseases	4(1.00%)	11(2.75%)	3(0.75%)	5(1.25%)	0(0.0%)	0(0.0%)	23(5.75%)
Antibiotic	13(3.25%)	18(4.50%)	15(3.75%)	5(1.25%)	1(0.25%)	0(0.0%)	52(13.00%)
Herb medicine	4(1.00%)	12(3.00%)	2(0.50%)	2(0.50%)	0(0.0%)	2(0.50%)	22(5.50%)
Total	85(21.25%)	136(34.00%)	102(25.50%)	36(9.00%)	23(5.75%)	18(4.50%)	400(100.0%)

$x^2 = 113.334$ Sig. (2-sided) = 0.000

From the table 12 the results of analysis of income analysis has affects the medicine purchasing behavior of consumer at pharmacy in terms what type of medicine that consumer usually purchase from pharmacy found that $x^2 = 113.334$ and Sig. (2-sided) = 0.000 which is less than 0.05 that is reject the main hypothesis H_0 and accept the secondary hypothesis H_1 means that income has effects on medicine purchasing behavior of consumer in terms what type of medicine that consumer usually purchase from pharmacy

Hypothesis 6: The different income has different medicine

purchasing behavior of consumer at pharmacies in terms trends of your purchasing behavior in the future from pharmacy

H_0: Income has no effects toward medicine purchasing behavior of consumer at pharmacies in terms trends of your purchasing behavior in the future from pharmacy

H_1: Income level has effects toward medicine purchasing behavior of consumer at pharmacies in terms trends of your purchasing behavior in the future from pharmacy

Table 13: compares the frequency and percentage between income and medicine purchasing behavior of consumer at pharmacies in terms trends of your purchasing behavior in the future from pharmacy

Trends of consumer purchasing behavior in the future	Income						Total
	≤1,000,000	1,100,000-1,500,000	1,600,000-2,000,000	2,100,000-2,500,000	2,600,000-3,000,000	More 3,100,000	
Repurchase	57(14.25%)	99(24.75%)	67(16.75%)	11(2.75%)	17(4.25%)	16(4.00%)	267(66.75%)
Tell other to come to purchase	22(5.50%)	32(8.00%)	26(6.50%)	20(5.00%)	4(1.00%)	0(0.0%)	104(26.00%)
Stop purchasing	6(1.50%)	5(1.25%)	9(2.25)	5(1.25)	2(0.50%)	2(0.50%)	29(7.25%)
Total	85(21.25%)	136(34.00%)	102(25.50%)	36(9.00%)	23(5.75%)	18(4.50%)	400(100.0%)

$x^2 = 32.460$ Sig. (2-sided) = 0.000

From the table 13 the results of analysis of income analysis has affects the medicine purchasing behavior of consumer at pharmacy in terms trends of your purchasing behavior in the future from pharmacy found that $x^2 = 32.460$ and Sig. (2-

sided) = 0.000 which is less than 0.05 that is reject the main hypothesis H_0 and accept the secondary hypothesis H_1 means that income has effects on medicine purchasing behavior of consumer in terms trends of your purchasing behavior in the future from pharmacy.

Table 14: summary of test results, hypothesis, personal data characteristics, and marketing mix factors marketing and medicine purchasing behavior of consumers at pharmacies in Phonhong district Vientiane Province.

	Medicine purchasing behavior of consumers at pharmacies in Phonhong district Vientiane Province					
	Who is the main decision on purchasing	Period time that purchase medicine	Average time that spend to purchase medicine	What type of product that purchase	What type of medicine that purchase	Trends of purchasing behavior in the future
Gender	√	√	x	x	√	x
Age	√	√	√	√	√	x
Education	x	√	√	x	√	x
Occupation	√	√	√	√	√	√
Income	√	√	√	√	√	√

(√) Means in accordance with the hypothesis
(x) Means not in accordance with the hypothesis

5. Discussion and recommendation
5.1 Discussion
From the research study personal information, marketing mix factors and medicine purchasing behavior from pharmacies in Phonhong District Vientiane Province can summarize this research as follows:
1. Personal information the majority of respondents in this research were female representing a percentage of 51.50%, most of the respondents are between 36-45 years old which 38.00%, were in associate's degree accounted for 44.75%, most respondents were farmer representing 27.00%, most of the respondents have income 1,100,000-1,500,000 per month which are 34.00%
2. Occupation and income have an effected on the medicine purchasing behavior of consumer at the private pharmacy in Phonhong district Vientiane province, which corresponds research of Tangploy (2010)[9] it can be said that each occupation and income per month leading to the need to purchase and use products of the consumer. Therefore, entrepreneurs must give priority especially, in the Marketing strategy formulation to be suitable and satisfy with the need of this group target.
3. Gender, age and education have no effected on the

medicine purchasing behavior of consumers at the private pharmacy in Phonhong district Vientiane province.

The research also found that Consumers purchase medicine from the pharmacy for themselves the most. Because the consumer must tell all the symptoms to the pharmacist, most of the medicine that consumers purchased were Analgesics to reduce fever, which consumers do not have a high income, therefore, consumers choose to purchase by their own.

5.2 Recommendations
Study on the medicine purchasing behavior of consumers at the private pharmacy in Phonhong District Vientiane Province, the researcher has the suggestions following:
1. The medicine inside the pharmacy must be orderly organized in a clean area.
2. Since the drug prices in Laos have not been controlled. The price is set by the entrepreneur. Therefore, the retailer should specify drug prices that are appropriate for both buyers and sellers.
3. The promotion side the pharmacies should increase other marketing strategies with regard to consumers.

5.3 The recommendations for future research
This research study on the medicine purchasing behavior of

consumer at the private pharmacy in Phonhong District Vientiane Province Lao PDR, that was conducted a study only in Vientiane, which can not tell in detail the behavior of buying medicine all areas in Laos, Therefore, in the next study, there should be additional studies in another region. In order to compare that consumers in each region have the medicine purchasing behavior the same or how to differentiate.

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