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Study on Potential of Operators in Slaughterhouses in Northern Lao People's Democratic Republic

Souliphong Khounthavong[1], Saisakul Fongmul[2*], Phahol Sakkatat[3], Phutthisun Kruekum[4]

[1]Ph.D. Candidate, Doctor of Philosophy in Resources Development and Agricultural Extension, Faculty of Agricultural Production, Maejo University, Chiang Mai, Thailand

[2,3,4]Faculty of Agricultural Production, Maejo University, Chiang Mai, Thailand

*Corresponding author's email: saisakul_tor@yahoo.com

ABSTRACT

This study aimed to explore socio-economic attributes, practical potential and factors affecting potential development of slaughterhouse operators in slaughterhouses in Northern Laos P.D.R. A set of questionnaires was used for data collection administered with 319 slaughterhouse operators in 4 provinces of northern Laos P.D.R. Obtained data were analyzed by using descriptive statistics (Statistical Package for the Social Science: SPSS for Windows). Findings showed that the respondents' practices based on 9 issues of the slaughterhouse were at a moderate level ($\bar{x}$ = 3.43). Based on 12 issues of slaughterhouse management, their practices were at a low level ($\bar{x}$ = 2.40). For 9 issues of slaughterhouse and dismembering of animals, the respondents were ford at a moderate level ($\bar{x}$ = 3.00). like the 4 issues of use of slaughterhouse equipment ($\bar{x}$ = 3.22). For personal hygiene, it was found at a low level ($\bar{x}$ = 3.39). There were 11 independent variables having an effect on practices of the respondents with a statistical significance level for 21.80 %. There were 4 independent variables having statistically significant relationship at 0.01 while that of a number of members was at 0.05. the following were 4 variables having an effect on dependent variable: 1) An increase in age by one year resulted in an increase in the average performance score by .004 points; 2) The average score of those with higher education than primary school was .044 points higher. Au increase of one worker results in a .010 Point increase in the average good practice score. In addition, receiving one more channel of information resulted in a .008 higher performance score.

KEYWORDS: *socio – economic attributes; Development; Potential; slaughtering; Practices.*

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1. INTRODUCTION

Development of agricultural practices is important to be promoted in accordance the government's policies and social/economic, development plan. It includes food production/Security as well as job opportunity for more than 70% of people in Laos P.D. R. Meanwhile, agricultural production is an important income generating source which helps alleviate poverty of people in the country. In fact, agricultural production there makes GDP grow for 30% making Lao P.D.R a developing country. Quality meat without disease contamination is the elevation or important of quality and safe meat, close to the international level. Aside from standard slaughterhouse, slaughtering methods must be hygienic (Department of Livestock and Fisheries, 2020). Therefore, Ministry of Agriculture and Forestry (Department of Livestock and Fisheries) is designated to be responsible for monitoring of legal slaughterhouse operations and meat markets (Department of Livestock and Fisheries, 2017). Also, there is standard setting for biological prospective in meat at two levels expert standards and hygienic meat standards (Department of livestock, 2002). Most slaughterhouses in northern Laos P.D.R having an animal carcass dissection process and is usually done immediately after the slaughtering process (Warm carcass). Aside from the reduction of production costs, consumer in some countries believe that obtained meat is fresher and nearer than the cold carcass dissection. However, warm carcass has a disadvantage point, easier contamination by microorganism, resulting in faster spoilage which is dangerous to consumer (Sethakul et al, 2008) Slaughtering and meat selling people must adapt their working condition to be in line with general situations of the country. It is the connection point between the production sector and the big farm. Besides, it is a source that can cope with meat safety and quality standards)Channuwong et al., 2025; Boonmak, 2000). This is particularly on the importance of medium and small-scale slaughtering

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and meat selling operation in terms of meat production per GDP of the country (8%value proportion per GDP(. This implies that it is important to the country economy)Kenan Institute, 2010). obstacles and limitations in the of medium and small-scale slaughtering operation and meat sellers arise from lack of continual development in various aspects such as systematic management, cleanliness and impacts of various factor causing contaminated meat, trading competition and expansion of the market into current department store business)Channuwong et al., 2022; Nakornthaipoom et al,2008). At present, criteria and conditions of the meat product based on quality and safety are important factors effecting the selection to purchase products for consumers. It arises from their expectation based on quality, cleanliness and safety of meat production)Tabai and Salay, 2003; Jevsnik et al, 2008). Although, consumers are aware of quality, clean, safe food more than ever but most of them lack of understanding and perceiving importance of the preparation of quality system, cleanliness, and safety)yapp and Fairman, 2006 Bas et al, 2007). This study aims to investigate potential in compliance with hygiene principles of slaughterhouse operators in northern in Laos P.D.R.

2. LITERATURE REVIEW

A concept about practice explains action or behavior that is expressed. It generally connects with internal personal factors such as brain, idea, feeling and needs. It is a result of external response which can be observed and measured (Siddhisaree chony, 1975; Chotikunchon, 2008; Suwan, 1997; Matko (1991) claimed that practice involves using physical activities to express behavior in various situations. In other words, it may be behavior expected to happen in the future.

Suwan (1997) explained a process leading to practice that it begins with a person who perceives information or knowledge through various channels (listening, reading and seeing). Then, an attempt was made to understand and uses it for problem solving. It also includes an analysis of components and situation relationships. Finally, there is a synthesis of previous knowledge to be in line with new knowledge for creating a blueprint for practical implementation. Phayaprom (1996) cited that effective practice related to coordination of the body can be classified into 5 hierarchies based on development: 1) assimilation - the initial stage of selecting a model of interest; 2) following the model - practice according to such model; 3) doing it right - able to select and do correctly according to the model; 4) continuous practice which is related to each other; and 5) making it natural - it is the highest level where the practice becomes an automatic skill.

According to various related concepts, it can be said that practice is behavior or action that is expressed. It is related with the internal conditions (idea, feeling, and need) and it responses to stimuli that can be observed such as good agriculture practice within dairy cattle raiser groups in San Kamphaeng and Mae On districts, Chiang Mai province.

Regarding hygiene of the slaughterhouse operators, the following are recommended: 1) slaughterhouse workers must be healthy (with annual medical check-up) and without contagious diseases; 2) they must wear clean clothes and full set of body protection equipment such as helmets, boots, coat, apron and gloves while working; 3) tools/equipment must be cleaned and kept in a special cabinet. Outsiders who wish to visit must request permission and wear special equipment that the slaughterhouse has prepared, e.g. robe, safety shoes, gloves and mask.

3. RESEARCH METHODOLOGY

This study explored socio-economic attitudes, potential in practices, and factors, effecting potential development of slaughterhouse operations in northern Laos P.D.R. The samples group consisted of 319 slaughterhouse operators in four northern provinces: Luangprabang, Luangnamtha, Xiankhouang and Huaphan. A set of questionnaires was used for date collection. It comprised two parts: 1) socio-economic attributes of the respondents (sex, age, educational attainment, marital status, a number of household members and workforce, household income, agricultural extrension agricultural extension worker contact, training, educational trip, channel of information perception and experience in slaughtering. 2) question about slaughtering practices of the slaughterhouse operator. Obtained data were analyzed by using descriptive statistics, i.e. mean, frequency, percentage, standards deviation minimum/maximum values. The five-rating scale included highest, high, moderate low and lowest.

4. RESULTS

Results of the study revealed that most of the respondents (611%) were male, 31-40 years old (49.9%), lower secondary school graduates (55.5%) and married (90%) as shown in table 1.

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Table 1: A number and percentage based on personal attributes of the respondents (n = 319)

Personal attributes	Number	%
Sex		
Male	195	61.1
Female	124	38.9
Age (year)		
Lower than 20	33	10.3
21 - 30	62	19.4
31 - 40	156	48.9
41 - 50	43	13.5
51 and above	25	7.8
$\bar{x}$ = 31.07 SD = 11.14 Min - Max = 17 - 80		
Education al attainment		
Primary school and below	72	22.6
Lower secondary school	177	55.5
Upper secondary school	60	18.8
Higher vocational certificate	5	1.6
Bachelor's degree	5	1.6
Marital Status		
Single	2	0.6
Married	287	90.0
Widowed	1	0.3
Divorced	29	9.1

According to economic attributes of the respondents, they had 6.55 household members on average most – the highest was 19 and the lowest was 2 persons. For household workforce the respondents had 3.62 persons on average, the highest was 12 and the lowest was 1 person. Regarding household income, the respondents had 5,813.54 baht per month on average– the highest was 25,596 and the slowest was 1,024 baht. For am income earned from the slaughter operation, it was found to be 2670.47 baht per month on average – the highest was 10,239 and the lowest was 0 baht. In other words, most of the respondents had an income earned from the slaughterhouse operation for 4,001–6,000 baht per month (48 %) as shown in Table 2.

Table 2: Economic attributes of the respondents (n = 319)

Economic attributes	Number	%
Arvmber of household members		
≥ 3	103	32.3
4 - 5	146	45.8
≤ 5	70	21.9
$\bar{x}$ = 6.55 S.D. = 2.59 Min - Max = 2 - 19		
workforce		
≥ 2	97	30.4
3 - 4	140	43.9
< 4	82	25.7
$\bar{x}$ = 3.62 S.D. = 1.63 Min - Max = 1 - 12		
Household income (baht/month)		
≥ 3,000	68	21.3
3,001 - 5,000	42	13.2
5,001 - 7,000	74	23.2
7,001 - 10,000	77	24.1
< 10,000	58	18.2
$\bar{x}$ = 5,813.54 SD = 3,734.33 Min - Max = 1,024 - 25,596		
An Income earned from the slaughterhouse operators (baht/month)		
≥ 2,000	42	13.2
2,001 - 4,000	87	27.3
4,001 - 6,000	153	48.0

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< 6,000	37	11.6
$\bar{x}$ = 2,670.47 SD = 1,871.78 Min - Max = 0 - 10,239		

According to training, the respondents attended 0.53 time per year on average – the highest was twice. Most of the respondents (68.3 %) had never attended the training and only 3.1 % attended the training more than twice per year. For information perception channel, most of the respondents perceived information through television (34.2 %) followed by radio (29.2 %). Regarding experience in slaughterhouse operation, the highest was 25 and the lowest was 1 year were found (9.81 years on average). In other words, most of the respondents had less than 5 years of the experience (56.1 %), followed by 6-10 years (17.9 %). For agricultural extension worker contact, the respondents did it 2.82 times per year on average – the highest was 7 and the lowest was never. Most of them (66.2 %) contacted agricultural extension workers; the highest was more than 4 times a year (34.1 %). And the lowest was never (33.8 %) (Table 3)

Table 3: Social attributes of the respondents (n = 319)

Social attributes	**Number**	**%**
Training		
Never	218	68.3
Ever	101	31.7
Once	91	28.5
Twice	10	3.1
$\bar{x}$ = 0.53 SD = 0.87 Min - Max = 0 - 4		
Information perception		
Radio	93	29.2
Television	109	34.2
Printed material	7	2.2
Co - worker	66	20.7
Personnel	44	13.8
Frequency of information perception		
1-3 times	90	28.8
4-6 times	95	29.8
7-10 times	56	17.6
11 times and above	78	24.5
$\bar{x}$ =7.27 SD = 2.74 Min - Max = 2 - 17		
Experience in slaughterhouse operation (year)		
≥ 5	179	56.1
6 – 10	57	17.9
11 – 15	48	15
16 – 20	27	8.5
< 21 and above	8	2.5
$\bar{x}$ = 9.81 SD = 5.15 Min - Max = 1 - 25		
Agricultural Extension worker contact (Times)		
Never	107	33.8
Ever	212	66.2
1 – 2	19	6
3 – 4	83	26.2
5 and above	108	34.1
$\bar{x}$ = 2.82 SD = 2.29 Min - Max = 0 - 7		

According to Table 4 (Components of the slaughterhouse) it was found that the respondents could Practice at a moderate lever ($\bar{x}$ =3.43 S.D.=.25).This might because the slaughterhouse was inappropriate enough Based or it's detail ,the following were found at a high lever : 1) Appropriate design ($\bar{x}$ =4.44) ; 2) the location is near to contaminate sources ($\bar{x}$ =4.11) ; 3) clean cement floor with good drainage ($\bar{x}$ =3.96 ;4) having a certificate issued by a veterinarian ($\bar{x}$ =3.69);and5) having clothes changing rooms for workers ($\bar{x}$ =3.56), respectively. Table 4.

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Table 4: A number and percentage of the respondents based on practices about components the slaughterhouse operation.
(n = 319)

Item	Level of practices					$\bar{x}$	SD	Description
	Highest	High	Moderate	Low	Lowest			
1) Appropriate design of the	199 (62.4)	61 (19.1)	59 (18.5)	0	0	4.44	0.79	High
2) The slaughterhouse is located near contamination sources	116 (36.4)	121 (37.9)	82 (25.7)	0	0	4.11	0.78	High
3) Control of animals that are disease carriers	0	47 (14.7)	56 (17.6)	166 (50)	50 (15.7)	2.31	0.24	Low
4) Animals brought into the slaughterhouse have a veterinary certificate	32 (10.0)	190 (56.6)	64 (20.1)	33 (10.3)	0	3.69	0.79	High
5) The floor is dear, covered with cement and has good drainage	62 (19.4)	178 (55.8)	69 (21.6)	10 (3.1)	0	3.96	0.73	High
6) The slaughterhouse is a close factory-surrounded by walls	47 (14.7)	44 (13.8)	175 (54.9)	53 (16.6)	0	3.27	0.91	Moderate
7) The slaughterhouse is designed to move forward	7 (2.2)	41 (12.9)	82 (25.7)	183 (57.4)	6 (1.9)	2.56	0.82	Moderate
8) There are clothes changing rooms	25 (7.8)	77 (24.1)	105 (32.9)	112 (35.1)	0	3.05	0.95	Moderate
9) There is a changing room for workers	78 (24.5)	81 (25.4)	101 (31.7)	59 (18.5)	0	3.56	1.05	High
Total						**3.43**	**0.25**	**Moderate**

Fon the slaughterhouse management, it was found That, as a whole, the respondents practical at a low lever ($\bar{x}$ =2.40), This might because they had inadequate knowledge and did not have manual on slaughterhouse management operations. Based on its detail, the following were found at a low level: 1) closing the slaughterhouse before disinfection ($\bar{x}$ =1.68); 2) killing animals by electric shock to reduce their suffering ($\bar{x}$ =1.75); 3) use of infectants or hazardous substances according to the product label ($\bar{x}$ =1.77); 4) the slaughterhouse operator receives an annual health check ($\bar{x}$ =1.84); 5) attending to enhance correct knowledge and practices ($\bar{x}$ =1.85); and 6) cleaning the slaughterhouse and equipment in a sanitary manner ($\bar{x}$ =1.96), respectively. Moreover, use of slides to move animal and carcasses was found at a lowest level ($\bar{x}$ = 1.30) as shown in. Table 5.

Table 5: A number and percentage of the respondents in practices about the slaughterhouse management
(n = 319)

Item	Level of practices					$\bar{x}$	SD	Description
	Highest	High	Moderate	Low	Lowest			
1) Having a manual on the slaughterhouse Management, cleaning and maintenance	33 (10.3)	82 (25.7)	142 (44.5)	62 (19.4)	0	3.27	0.89	Moderate
2) An appropriate number personal with clear duties and responsibility	105 (32.9)	132 (41.4)	82 (25.7)	0	0	4.07	0.76	High
3) Attending training to enhance correct knowledge and practices	0	0	39 (12.2)	193 (60.5)	87 (27.3)	1.85	0.61	Low
4) The slaughterhouse operator receives an annual health check	0	0	64 (20.1)	142 (44.5)	113 (35.4)	1.84	0.73	Low
5) Cleaning the slaughterhouse and equipment in a sanitary manner	0	0	56 (17.6)	187 (58.6)	76 (23.8)	1.94	0.64	Low
6) Maintaining the slaughterhouse and equipment to be in a good condition and safe	0	50 (15.7)	48 (15.0)	172 (53.9)	49 (15.4)	2.31	0.92	Low
7) Disinfection and cleaning of the slaughterhouse/equipment after use	60 (18.8)	147 (46.1)	54 (16.9)	58 (18.2)	0	3.66	0.98	High
8) Closing the slaughterhouse before disinfection	0	0	33 (10.3)	151 (47.3)	135 (42.3)	1.68	0.65	Low

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9) Use of sides to move animals and carcasses	0	0	6 (1.9)	84 (26.3)	229 (71.8)	1.30	0.50	Lowest
10) Killing animals by electric shock to reduce their suffering	0	0	42 (13.2)	155 (48.6)	122 (38.2)	1.75	0.67	Low
11) Slaughterhouse cleaning disinfection every time after use	38 (11.9)	91 (28.5)	134 (42.0)	56 (17.6)	0	3.35	0.90	Moderate
12) Use of infectants or hazardous substances according to the product label	0	0	53 (16.6)	140 (43.9)	126 (39.5)	1.77	0.71	Low
Total						**2.40**	**0.18**	**Low**

According to Table 6 (Slaughtering and dismembering of animal carcasses), the respondents practiced about use of slaughterhouse equipment at a moderate level ($\bar{x}$ =3.00). This might be because they did not have enough knowledge and skills about use of animal slaughtering and dismembering of animal carcasses land effective slaughtering Methods Based on its detail, a high level fell into each animal is punctured and blood is drawn out immediately ($\bar{x}$ =3.60) However Hanging animal carcasses all the time is done during the slaughtering and dismembering of animal carcasses"" was found at loas level = 1.97)

Table 6: A number and percentage of the respondents in practices about use of the slaughtering and dismembering of animal carcasses.

Item	Level of practices					$\bar{x}$	SD	Description
	Highest	High	Moderate	Low	Lowest			
1) Effective slaughtering methods which reduce suffering	20 (6.3)	47 (14.7)	175 (54.9)	75 (23.5)	0	3.04	0.80	Moderate
2) Each animal is punctured and blood is drawn out immediately after anesthesia	40 (12.5)	142 (44.5)	105 (32.9)	32 (10.0)	0	3.60	0.83	High
3) Slaughtering and dismembering of animal carcasses is done on a table all the time	19 (6.0)	55 (17.2)	175 (54.9)	70 (21.9)	0	3.07	0.79	Moderate
4) Hanging animal carcasses C all the time while slaughtering and dismembering of animal carcasses	0	13 (4.1)	44 (13.8)	180 (56.4)	82 (25.7)	1.97	0.76	Low
5) Animal carcasses are dismembered high from the ground and placed on a clean table	33 (10.3)	91 (28.5)	163 (51.1)	32 (10.0)	0	3.39	0.80	Moderate
6) Trim animal carcasses from above the ground and place it on a clean table	0	61 (19.1)	123 (38.6)	75 (23.5)	60 (18.8)	2.58	1.00	Moderate
7) Trim animal carcasses from above the ground and place it on a clean table	24 (7.5)	158 (49.5)	90 (28.2)	47 (14.7)	0	3.50	0.84	Moderate
8) Store animal parts and organs in a clean, cool room	12 (3.8)	46 (14.4)	125 (39.2)	136 (42.6)	0	2.79	0.82	Moderate
9) Vehicles used to transport meat are clean	14 (4.4)	54 (16.9)	202 (63.3)	49 (15.4)	0	3.10	0.70	Moderate
Total						**3.00**	**0.25**	**Moderate**

According to use of the slaughterhouse equipment, it was found that the respondents did it at a moderate level ($\bar{x}$ =3.22). This might be because they had not enough knowledge to use the slaughterhouse equipment property. Examples are equipment in a staring slaughtering/butchering clean storage place on using hot water to sterilize the equipment. Based on its detail, the following Were found at a high and low level: sorting knife types and cleaning before each use ($\bar{x}$ =4.18, high); slaughtering equipment are clean ($\bar{x}$ =3.77, high); and hot water to sterilize knives > 80°C ($\bar{x}$ = 2.39, low), (Table 7).

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Table 7: A number and percentage of the respondents the based on levels of the slaughterhouse equipment using

Item	Level of practices					$\bar{x}$	SD	Description
	Highest	High	Moderate	Low	Lowest			
1) Slaughtering equipment are clean	85 (26.6)	128 (40.1)	55 (17.2)	51 (16.0)	0	3.77	1.02	High
2) Sorting knife types and cleaning before each use	101 (31.7)	175 (54.9)	43 (13.5)	0	0	4.18	0.65	High
3) Storing knives and other equipment in a clean place	0	47 (14.7)	125 (39.2)	96 (30.1)	51 (16.0)	2.53	0.93	Moderate
4) Use of hot water to sterilize knives	0	35 (11.0)	102 (32.0)	133 (41.7)	49 (15.4)	2.39	0.88	Low
Total						**3.22**	**0.37**	**Moderate**

For personal hygiene, it was found that the respondents practiced. At a low level ($\bar{x}$ =2.39). This might be because they did not truly understand the management of personal hygiene such as disease control and prevention. In addition, they should not work in the slaughterhouse when having the following symptoms: diarrhea, vomit, squeeze, wound, etc. Importantly, medical checkup should be done every year. Regarding the personal hygiene, annual medical checkup was level ($\bar{x}$ =1.45). found at a lowest level (Table 8).

Tables 8: A number and percentage of the respondents based on the level of personal hygiene practices

Item	Level of practices					$\bar{x}$	SD	Description
	Highest	High	Moderate	Low	Lowest			
1) Your annual medical heck up (At least once)	0	0	38 (11.9)	69 (21.6)	212 (66.5)	1.45	0.70	Lowest
2) You are sick such as diarrhea, catching a cold, o wound, etc.	0	41 (12.9)	52 (16.3)	152 (47.6)	74 (23.2)	2.19	0.93	Low
3) You clean your hands every time after using the toilet	0	19 (6.0)	26 (8.2)	154 (48.3)	120 (37.6)	1.82	0.82	Low
4) You wear a contamination protective suit	44 (13.8)	132 (41.4)	82 (25.7)	61 (19.1)	0	3.50	0.95	Moderate
5) You do not spit on blowing saliva/suit on the floor snot	0	30 (9.4)	64 (20.1)	148 (46.4)	77 (24.1)	2.15	0.89	Low
6) You wear beauty accessories	25 (7.8)	67 (21.0)	179 (56.1)	48 (15.0)	0	3.22	0.79	Moderate
Total						**2.39**	**0.28**	**Low**

Factors effecting potential in the slaughterhouse Operations/practices of the respondents Regarding an analysis of a relationship between socio-economic attributes of the respondents. and practices about the slaughterhouse operations, independent variables consisted of 11 variables. They were PRAC = b_0 + b_1SEX + b_2AGE + b_3EDU + b_4STAT + b_5MEM + b_6LAB + b_7INC + b_8TRAIN + b_9CONT + b_{10}CHAN + b_{11}EXP; where PRAC = dependent variables of multiple regression equation (Radices in the slaughterhouse) b_0 = constant b_1+b_2.....b_{11}= regression coefficient off independent variables.

Results of the analysis showed that all of the independent variables had an effect on the slaughterhouse practices/operations of the respondents for 21.80% (R^2=0.218) The rest (78.20%) were influence of other factor not fixed in this study. There were & independent variables having an effect on potential development on the practices of the respondents with a statistical significance level. Of this, 3 independent variables had a positive effect: age, educational attainment and information perception. All of these had a statistically significance relationship level at 0.01. However, a number of household members was found to be negative but having a statistically significance relationship level at 0.05. Four independent variables having an effect on dependent variable. knowledge about slaughtering based on practices. This could explain as follows

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Table 9: Factors effecting potential of slaughtering operators and their meat selling

Independent variable	Good practice statistics		
	B	**t**	**Sig.**
1 Sex	-.009	-.464	.643
2 Age	.004	3.556	.000**
3 Education attainment	.044	4.697	.000**
4 Marital status	0.14	.603	.547
5 Household members	-.010	-2.299	.022*
6 Workforce	.007	1.043	.298
7 Household income	2.035	1.018	.309
8 Training	-.004	-.208	.836
9 Agricultural extension worker contact	-.021	-.805	.422
10 Channels of information perception	.008	2.794	.006**
11 Experience Constant	-.003	-1.341	.181
Constant	2.638	35.992	.000**
	R^2 = .218 (21.80%) F = 5.623 Sig. F = .000		

remarks * Significant relationship at 0.05 ** Significant relationship at 0.01

5. CONCLUSION AND DISCUSSION

According to socio-economic of the respondents, the findings showed that most of the participants were males with 31-40 years old with an average (48.9%), lower secondary school graduates (55.5%) and married)90%). The respondents had 6.55 household members on average, The highest was 19 and the lowest was 2 persons. In other words, the respondents mostly lowest had 4-5 household members)45.8%) with 3.62 household workforce on avenge. Their monthly household Income was 5,813.54 baht each on average, and the highest was 25,596 baht the lowest was 1,024 baht. Their average monthly income from the slaughterhouse was 2,670.47 baht each, the highest was 10,239 baht. Most of the respondents had 4,001-6,000 baht of a monthly income from the slaughterhouse operations. They attended training o.53 time per year on average, the highest as twice. In - other words most of the respondents never attended training (68.3%(. The respondents perceived information through the television most)34.2%). They had 9.81 years of experience in slaughtering on average the highest was 25 and the lowest was 1 year. In other words, most of them had less than 5 years of experience in slaughtering (56.1%). The respondents contacted agricultural extension workers for 8.82 times per years on average, the highest was 7 and the lowest was never. In other words, most of the respondents did not contact agricultural extension workers)66.2%(.

Reading components the slaughterhouse, it was found that the respondents practice of module u ($\bar{x}$ =3.43, S.D =.25). For management of the slaughterhouse, the respondents produced at a low level, $\bar{x}$= 2.40 S.D. = .18(. In terms of slaughtering dispreferring, it was found that the respondents practiced at a moderate level)$\bar{x}$ =3.00, S.D. =.25). For use of the equipment for slaughtering the respondents practiced at a moderate level)$\bar{x}$ =3.22, S.D. = .73), Based on personal hygiene, it was found that the respondents practiced at a low level)$\bar{x}$ =2.39, S.D. = .28).

Factors effecting potential development of the respondents, findings showed that all of the 11 independent variables had an effect on practices related to the stagehouse operations on practices al 21.80%)R^2 = 0.218). The most (78:20%) were influence of other factors not fixed in this study. Four independent variables had an effect on potential development in practices of the respondents with a statistical significance level. In this respect, three were found to be positive: age, educational attainment and information perception at the 0.01 level of significance. However, a number household members was found to be negative. The following independent had an effect the dependent variables: 1(variable:

6. AKNOWLEDGEMENT

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