

Small-Scale Piglet Producers Perception towards Success Factors in Piglet Production in Mizoram, India

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Abstract

The present study was conducted in three districts (Aizawl, Serchhip and Kolasib) of Mizoram, India, to measure farmers perception towards success factors in piglet production. Data were collected from 100 respondents using snowball sampling method through semi-structured interview schedule. A total of 16 success factors were included in the study. The study found that number of piglets born per sow per litter was perceived as the most critical factor by the respondents for their success in pig production business. The study observed that 31.25 per cent of total factors had high perceived success score, while 37.5 per cent and 31.25 per cent had moderate and low perceived success scores respectively. Factors such as litter size per sow, number of litters per sow per year, cost of production per sow, income per sow and income per adult fattener pig had high perceived success scores. Distance to market was the least critical success factors perceived by the respondents as the farm itself is where the sale of piglets usually happened.

Keywords: Factors, Mizoram, Perception, Piglet, Success

Introduction

Pig farming or rearing of pigs is the raising and breeding of domestic pigs as livestock, and it is a branch of animal husbandry. The activities on a pig farm depend on the husbandry style of the farmer, and range from very little intervention to intensive systems where the pigs are contained in a building for the majority of their lives. In India, majority of pigs are reared and kept in traditional small-scale subsistence-driven production systems and promotes greater self-sufficiency and provides a greater food security to urban households and increases incomes (Chauhan *et al.*, 2016). Pig rearing is an important economic activity in the eastern states of the India and particularly among the tribal communities. Pig is the most important livestock in Mizoram and almost every family reared pig as a backyard venture. Pig is the most preferred livestock as it constitutes 81.00 % of the total livestock in Mizoram (20th Livestock census, 2019). The Mizo people reared the pigs in confinement in raised platform constructed with woods and bamboos and farmers followed stall feeding and supplied kitchen waste with certain weeds, after boiling, to their pigs while only half (50.00%) of them offered concentrate feeds (Rahmanet *al.*, 2008). As pork being one of the most highly demanded meat in Mizoram, production should be increased to meet the demand. Pigs and pork are still imported from neighboring states. To meet the demand of meat, more piglets has to be produced within the states and there is no problem in marketing as piglets are mainly sold right out of the farm's premises where the buyers have to approach on their own convenience.

Perception can be defined by various ways. It is how things are understood by an individual. Perceptions are directional (van den Bans & Hawkins, 1996) and therefore influence specific attitudes, intentions and behaviors (Ajzek & Fishbein, 1980). To increase efficiency of reproductive and production performance, it is important to know farmers perception on success factors important for successful pig business. By knowing farmers perception, one could interpret what are the key areas or activities farmers did not take up or which areas are to be improved through training and information dissemination.

Materials and Method

The present study was conducted in purposively selected districts namely Aizawl, Serchhip and Kolasib district of Mizoram. From Aizawl district, 50 respondents and 25 each respondent from Serchhip and Kolasib districts were selected using snowball sampling method. Therefore, a total of 100 respondents were selected and included under the study. Data were collected through a semi-structured interview schedule which was pre-tested with few respondents from non-sampled area. Data collected to measure perceptions were analyzed using Mean and Standard deviation. The identified success factors were measured on a four-point continuum in which scores 1,2,3,4 were allocated based on the level of farmer's perception. Critical success factors (each perceived variable) were categorized using Mean and standard deviation based on farmer's perception as low (scale 1), moderate (Scale 2 & 3) and high (scale 4).

Result and Discussion

The qualitative statement of success factors included under the study is presented in the Table 1 along with their mean value, standard deviation and their ranks. On categorizing success factors into three namely low, moderate and high perceived factors using mean and standard deviation, Table 2 showed that 31.25 percent of total factors had high perceived score, while 37.50 percent and 31.25 percent had moderate and low perceived scores respectively. The result showed that number of piglets born per sow per litter was perceived as the most critical factor by the respondents for their success in pig production business which is in agreement with the finding of Nyadenga (2015). More the number of piglets born per sow per litter, higher is the income and profit for the farmers. Other factors like number of litters per sow per year, income per sow, income per adult fattener pig, number of pig sold per sow per year and cost of production per sow had high perceived success scores. At least two litters per sow per year should be obtained by farmers to be successful in pig production. Cost of production per sow had high influence in farmer's perception to achieve success as it determines profit gained. Many of the farmers in Mizoram reared both fattener and sow herd together, income per adult fattener pig was also perceived as important to the success of their piglet production business.

Table 1: Small scale piglet producers perception towards success factors in piglet production in Mizoram, India

Variables	Frequency (N)	Mean	SD	Rank
Number of piglets born per sow per litter	100	4	0	I
Age of piglets at weaning	100	3.32	0.69	IX
Number of pigs sold per sow per year	100	3.88	0.32	VI
Number of litters per sow per year	100	3.95	0.21	IV
Piglet deaths at weaning	100	2.94	0.72	XII
Quality of pig housing	100	3.1	0.65	XI
Quality of feed	100	3.31	0.58	X
Quality of water	100	2.81	0.71	XIII
Culling of unproductive breeding stock	100	2.65	0.7	XIV
Frequency of marketing pigs	100	3.59	0.62	VIII
Distance to market	100	2.19	0.96	XVI
Cost of production per adult fatterer pig	100	3.73	0.46	VII
Cost of production per sow	100	3.87	0.33	V
Income per sow	100	3.99	0.1	II
Income per adult fatterer pig	100	3.98	0.14	III
Cost of breeding	100	2.45	0.91	XV

Factors that received moderate perceived scores are age of piglets at weaning, number of pigs sold per sow per year, quality of pig housing, quality of feed, frequency of marketing pigs and cost of production per fatterer. Although respondents knew that not much difference will be observed on health status of piglets weaned on recommended age and older than recommended age, they still prefer weaning of piglets at older age. Number of pigs sold largely depends on health status and reproductive performance of sow. Healthy and highly reproductive pigs produced more piglets per litter with less mortality giving more piglets for marketing. Number of piglets born per sow was perceived important for higher number of pigs sold. Most of the respondents used cheap and locally available materials for constructing pig house. Respondents did not face health related and other problems that hamper production performance of sow when kept in locally available structured pig house. The type of feed given to pigs varied as respondents were from different places. The most common feed given was kitchen wastes along with boiled rice. The type of feed differs from time to time as per availability of sources of feed. Frequency of marketing pigs was almost same for all respondents. Fattener pigs unlike sow, did not require much care and attention and cost of production for fattener pig was not perceived as critical as cost of production per sow. Farmers tend to keep fatteners pig longer and most were sold at the age between 9-12 months.

Table 2: Perceived success factors of the small-scale piglet producers in piglet production

Category	Percentage (%)
Low perceived success factors	31.25
Moderate perceived success factors	37.5
High perceived success factors	31.25

Factors such as culling of unproductive breeding stock, distance to market, cost of breeding, quality of water and piglet deaths at weaning had low perceived success scores. Piglet producers covered in this study did not face much problems relating to infertility and unproductive breeding stock. The demand of pork is high in the state and farmers did not face problems in selling piglets and fattener pigs and also most farms under the study were located in nearby areas with favourable road connectivity for the buyers and sellers. Mostly farmers provided clean drinking water for their pigs and farmers considered that it is normal getting one or two dead piglets per litter and did not influence their success towards pig production. It is found that 41.00 per cent of the respondents kept male breeder for breeding purposes that being the reason for low perceived score and also the rest 59.00 per cent did not consider cost of breeding as an important factor for their success.

Conclusion

From the above study it may be concluded that piglet producers had high perceived success scores in factors that generate income. They did not consider much about how income could be increased by decreasing piglet mortality and weaning age. It is important to give information on how presence of male breeders in the farm could increase reproductive performance and income. Training and awareness programmes should be conducted for farmers as

most frequent as possible covering all aspects of farming practice starting from housing, selection of pigs for breeding, feeding and watering, health and diseases prevention and other management activities.

Conflict of Interests

There is no conflict of interest.

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