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Analysis of Profitability of Commercial Dog Breeding Ventures in Thrissur and Ernakulam Districts of Kerala

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ABSTRACT

Kerala's commercial dog breeding enterprise is a promising one with the potential to reduce youth unemployment and provide a livelihood. However, the state lacks authentic information on factors affecting profitability of commercial dog breeding business. The present study was conducted to identify the association between factors that affect profitability of commercial dog breeding in Kerala. The study was conducted using an ex-post facto research design on 60 commercial dog breeding units selected randomly from Thrissur and Ernakulam districts of Kerala. Data collection was done using a pretested-structured interview schedule. Study revealed that years of experience, number of dogs reared, number of puppies born, cost of veterinary care, level of adoption and labour cost were correlated with profitability of commercial dog breeding enterprise.

Keywords: *Dog breeding; Profitability; Factors; Kerala*

INTRODUCTION

Commercial dog breeding in Kerala has of late proved to be highly rewarding on account of the unprecedented event that made history, the COVID-19 pandemic. This situation resulted in an escalated demand for puppies and a shortage in supply of the same because of lockdown and work from home situations. Traditionally, dog breeding has not found a place among constructive ventures that have a likelihood of profitability and the potential to create jobs. The market for companion dogs has been flourishing, and this has resulted in a shift in the scene worldwide. There is a building acknowledgment of dog breeding as a lucrative venture and a reliable source of income. Other than puppies and stud service, commercial dog breeding was not envisaged as an enterprise that would supply meat or other material products. Unlike livestock farming, the production process in the dog breeding sector is

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complex and it cannot be delineated into homogeneous age, weight, or breed categories to ease the study.

The profitability of any enterprise depends on the scientific organization of factors that affect the cost incurred and returns obtained. Like any other business enterprise, animal breeding and associated activities are undertaken by ordinary folk to enhance their livelihood opportunities, all of which have assumed greater relevance in the post-COVID riddled economic situation of today. Thus, the trade-off principles of profitability operate in this sector. A comprehensive understanding of the factors that affect the profitability of animal-based production units would be crucial to the success of these ventures.

METHODOLOGY

In order to study the factors affecting the profitability of commercial dog breeding units in Kerala, two districts, Thrissur and Ernakulam, were purposively selected because these districts had the highest number of purebred dog litters registered with the Kennel Club of India. The sampling frame for both districts was prepared separately using the key informants, such that 70 and 67 breeders were identified from Thrissur and Ernakulam districts, respectively. From these lists, a sample of 60 commercial dog breeders was selected randomly. Key informants included veterinarians, members of the Kennel Club of India, and commercial dog breeders. Data collection was done using a pretested-structured interview schedule along with direct non-participant observation in order to ensure the reliability of data. A Pearson's correlation analysis was done to identify the independent variables that were associated with the profitability of the enterprise using SPSS version 26.

FINDINGS AND DISCUSSION

A correlation analysis was done to identify the independent variables that were related to the profitability of the enterprise, the dependent variable. The study also finds the extent and nature of the correlation using Pearson's correlation coefficient (r). Years of experience in dog breeding, number of adult animals reared, number of puppies born and labor cost were positively associated with profitability at a one per cent level of significance. Veterinary expenses and the level of adoption of improved practices were also associated with profitability of commercial dog breeding at a five per cent level of significance. Age of the respondents, number of breeds reared, feed cost, total fixed cost, and level of knowledge were non-significant.

Table 1. Relationship between Independent Variables and the Profitability of Commercial Dog Breeding

(n=60)

Sl. No.	Independent variable	Pearson's correlation coefficient (r)	p-value
1.	Age of commercial dog breeder	.017^{ns}	.896
2.	Years of experience in dog breeding	.880**	.000
3.	Number of adult animals reared	.465**	.000
4.	Number of breeds reared	-.027^{ns}	.835
5.	Number of puppies born	.539**	.000
6.	Veterinary expense	.324*	.011
7.	Feed cost	.124^{ns}	.344
8.	Total fixed cost	.168^{ns}	.198
9.	Labour cost	.388**	.002
10.	Level of adoption	.245*	.030
11.	Level of knowledge	.209^{ns}	.109

** Significant at 5 per cent level*
*** Significant at 1 per cent level*
ns - not significant

Association between Years of experience in Dog breeding and the Profitability of Commercial Dog Breeding units

This study revealed a significant association between the years of experience of the commercial dog breeder in dog breeding and the profitability of the enterprise ($r = 0.88$, $p < 0.001$). A strong positive association was found to affect the profitability of the commercial dog breeding units. Profitability rises in tandem with years of experience in dog breeding. Prior experience in dog breeding activities can thus prove to be crucial for aspiring dog breeders. This experience can be ensured by conducting hands-on training sessions or workshops by veterinary universities, vocational schools, and kennel clubs so that veterinary students and interested individuals can get first-hand experience of managing the kennel activities in a kennel. Before taking care of their kennels, potential breeders can be offered the choice of working as apprentices in kennels so that they garner valuable experience that could be decisive for the success of their future entrepreneurship. Similar findings were reported by Ombasa (2017), Ishola (2016), and Schutjens and Wever (2000).

Association between the Number of Adult Dogs reared and Profitability of Commercial Dog breeding units

The number of adult dogs reared in the commercial dog breeding units was significantly associated with the profitability of the units ($r = 0.465$, $p < 0.001$). A moderate positive correlation with Pearson's correlation coefficient (r) equal to 0.465 was found with a highly significant p-value (less than 0.001). Rearing the breed with higher demand, an excellent pedigree and breed characteristics are strategies that dog breeders could employ to ensure higher returns. However, this needs to be supported by a favorable market study. Ishola (2016) in his study reported that the total number of dogs in a kennel was not significantly correlated with the profitability of dog breeding ventures in Nigeria. This contradictory finding may be because customer preferences and seasonal fluctuations caused variations in the pricing of puppies in the country of the aforementioned study. Tester et al. (2019) reported that herd size management played a noticeable role in the profitability of beef cow production. The study also reported that there was a slight loss in revenues in keeping the herd size stable.

The Correlation Coefficient between the Number of Puppies born and the Profitability of Commercial Dog breeding Units

The number of puppies born and the profitability of commercial dog breeding units was found to be highly significant ($r = 0.539$, $p < 0.001$). A moderate positive association was found between the number of puppies born and the profitability of commercial dog breeding units. The primary income of a commercial kennel is from the sale of puppies, and it is therefore clear that an increase in the number of puppies born coupled with a low mortality rate could boost profitability. Breeders must explore strategies that could increase the total number of puppies born every year by increasing litter size through better selection and rearing of more breedable dogs. Murat et al. (2018) also reported similar findings, asserting that increasing the number of puppies born and lowering the cost of production could improve the profitability of commercial kennels. Lima et al. (2020) observed that the litter size of goats and the prolificacy rate were significant factors that raised the profitability of goat farmers.

Association between Veterinary Expenses and Profitability of Commercial Dog Breeding Units

The findings of the present study revealed that veterinary expenses had a moderately positive correlation with the profitability of commercial dog breeding units ($r = 0.324$, $p < 0.011$). Providing improved health care facilities and

employing the most up-to-date treatment and diagnostic techniques could have resulted in the better health of animals, with consequent positive implications for productivity. Many infections can be avoided by regular vaccinations and deworming. Because dogs are monocyclic animals, heat detection in bitches is a critical aspect of the profitability in commercial dog breeding units. A lost cycle would have enormous economic repercussions. It is here that the importance of using innovative scientific tools such as hormone assays and exfoliative vaginal cytology predicting the time of breeding and confirming pregnancy would improve breeding efficiency. Losses can be minimized by early diagnosis and treatment of diseases. The above factors might have contributed to the moderate association between veterinary expenses and profitability of the venture. Ishola (2016) endorsed the findings of this study with his opinion that a bitch becoming pregnant at every mating was a factor that affected the profitability of the dog breeding industry.

Association between Labour Cost and Profitability of Commercial Dog breeding Units

Labour costs incurred on commercial dog breeding units were moderately associated with profitability ($r = 0.388$, $p = 0.002$). Close surveillance of the bitch during the peripartum period has been reported to be an important factor in the stress management of bitches. Human interventions to reduce stress were identified as one with significant preventive and curative effects. Human presence and close contact have been reported to promote the welfare of dogs by reducing their anxiety, as domestic animals are very attached to their human The present study revealed that activities in commercial kennels were carried out by the breeder and his family members themselves. Saitone et al. (2020) also documented that labor costs increased with the number of animals reared. Arnott et al. (2014) mentioned that minimizing the variable cost, operational cost, and labor cost would maximize profitability.

Association between the Level of Adoption of Scientific Dog Management Practices and Profitability of Commercial Dog breeding Units

Adoption of scientific dog management practices would contribute to the welfare of the dog, besides enhancing the quality of puppies produced. The level of adoption of scientific dog management practices was weakly associated with the profitability of the venture ($r = 0.245$, $p = 0.030$). Similar findings were reported by Finlayson et al. (2012), who observed that profitability of livestock farms and adoption of improved practices were significantly associated. A system agency concerned

with recognizing and grading kennels based on their adhesion to scientific management procedures could be crucial in promoting animal welfare while also ensuring an income from elite kennels. Kerala, being the most literate state in the country, has a community that tends to adopt more scientific practices into their business (Shah, 2013). Foltz and Chang (2002) reported that educated farmers tend to adopt newer, more productive technologies on their farms. Since all the commercial dog breeding ventures were profitable, profit-oriented technologies or practices could be adopted to a greater extent. Ombasa (2017) opined that the government should invest in current breeding technologies and pass on breeding knowledge to dog breeders for adoption.

CONCLUSION

The study concluded that the profitability of commercial dog breeding units in Thrissur and Ernakulam districts of Kerala was significantly correlated with number of years of experience in dog breeding, number of adult animals reared, number of puppies born, labor cost, veterinary expenses and level of adoption on scientific dog management practices. Factors like age, number of breeds reared, fixed cost, feed cost, and level of knowledge of scientific dog management practices were non-significant and were not correlated with the profitability of the venture. The study suggests that commercial dog breeders should seek additional information through specialized training and workshops to improve their financial skills in areas such as labor management and veterinary expenses. Finally, the study also recommends that commercial dog breeders should mobilize enough breeding resources through credit or equity. They must also gain experience and enhance their abilities through proper training. The findings stress the need for further research in this line to equip entrepreneurs to carry out a successful business.

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