Profitability of Broiler Firms in Tehsil Shabqada (Charsadda): A Domestic Study for Agricutural Sector

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Abstract

The purpose of this study is to determine the cost, return and profitability of broiler production in areas pf charsadda district. It is based on primary data which were collected through persona interview method in order to minimize the errors and biasedness in the data since most of the entrepreneurs were illiterate or low level of education. Data were collected from 30 broiler rearing firms by using random sampling. Statistical techniques, production function techniques, tables and graphs were used for the analysis of data. This study estimated average cost of raising broiler to be RS 521459.22 per farm (farm consist on the average of 2195 chickens) per session. Total variable cost per farm (2195) chickens per session was RS 307180. The total fixed cost was Rs 205416.66 per 2195chickens per session. Evidence of the study shows that gross return from the firm are Rs 682525.33 per 2195 no.of chickens per session. The calculated net return per session was Rs 47108.67. The findings revealed that broiler production was profitable enterprise. Cobb Douglas production function was also applied to find the individual effect of the factors of production of broiler. It was also observed that most of the variables had significant impact on the broiler production. The study also identified some problems in the study area of broiler production. Finally based on the finding of the study, some recommendations were made for the development of the broiler production.

Introduction

The word poultry farming refers to raising various kinds of birds domestically or commercially primarily for meat and eggs and generally for the purpose of sale. It may be chicken, duck or other birds. Main purpose for keeping is to get for consumption and provide eggs and meat for livestock. Poultry production is one of the important economic activities of the people of rural areas.Its plays very important role for mankind through food supply, income and employment generation, providing raw materials to some industries, facilitating research works. Poultry farming is the subsector of livestock which has emerged as a priority sector in recent policy formulation. It has been dominated by small famers and people of the rural areas to fulfill their demand of food and cash income on daily basis or monthly basis. (FAO)

In rural areas, poultry is considered as a secure source of income for small farmers and land less poor's. Itbecame important source of employment generation in rural areas. Poultry sector is one of the organized and vibrant segments of agriculture industry of Pakistan. This sector generates employment (direct/indirect) and income for about 1.5 million people. Poultry contribution in agriculture value addition is 4.8%. Poultry meat contributes 24.8% of the total meat production in the country. Poultry sector has shown a robust growth of 8-10% annually which reflects its inherent potential. In Pakistan, poultry industry had made considerable contribution to food production and plays a vital role in the national economy and towards the food security of the country. Noor (2009-10)

From the last decade the consumption of poultry products in developing countries has increased with 5.8 percent annually. Which increased the demand for poultry products. Poultry farming has the quality to fulfil at least this part of demand through increasing productivity and minimized the loses. For sustainability of poultry and increasing the poultry production we have to focus on the main problems like the problem of wages, high feeding cost, expensive vaccination and the problem of management in the poultry services which leads to the problem of low production and less profitability of the farms or individuals involved in poultry farms.

Research problem

The number of farms are growing day by day and the problems related to chicken farming are also raising with respect to time. Some problems have been investigated but the optimal farming has been ignored by the literature like efficiency in inputs, optimality in production and maximization of profit is the top most objective of rational organizer. Although the growing trend in the industry reflects comparatively high profit but does the profit of an organizer in the industry is optimal?

Objective of the study:
  i)   To determine cost, return and profitability of poultry firm in tehsil Shabqadar.
  ii)   To identify the optimal level of inputs and the output under the given resources.
  iii)   To identify the problems faced to broiler farms owners and suggest measure to improve their

situation from bad to good situation.

For optimal decision the organizer must consider both revenue and costs. The problem is how much each of the input should be hired under the given resources to get optimal profit.

1.4: Hypothesis of the study

H0: Normal profit $\pi = 0$

H1: Not normal profit $\pi \neq 0$

Literature Review:

Empirical Literature

In this chapter of the study different variables of poultry farms like production function, factors affecting cost of production, factors affecting optimality of the broiler production, factors affecting profitability of the farms etc. are analyzed by different research students and fields specialized scholars.

(Faroq2011) analyzed different factors such as cost of production, net profit per broiler, mortality rate, folks size, shed utilization and hygienic conditions of the farms and analyzed through statistical techniques like univariate, general liner model(GLM) and multiple regression. From which they concluded that flock size should be higher for net profit. Reducing mortality rate, better utilization of the shed capacity, appropriate hygienic measure and use of concrete floors were suggested to be the important factors which can increase the net profit of the firm.

(Yaicin et.al 2003) used the quadratic square root and cobb-Douglas production function and identified two factors- price of feed and feeding conversion rate- that dominantly affect the gap between total revenue and total costs. Cost minimization approach is valid process to optimize the objective(s) of rational broiler firm,since in output market the prices are determined by the market forces. In minimization of cost approach, economies of scale may leads to reduction in cost per broiler. (Yaicin et.al 2003) analyzed the scale effect on costs per broiler; the cost of production per broiler were lower in large firm than small firms. Therefore, the appropriate scale significantly affects the cost per broiler. (Farooq et.al 2009) analyzed cost of production and return, fixed cost, variable cost, labor wages, output prices, return from production and problems in production of poultry farms. While using Cobb-Douglas production function, OLS and regression to check the production of broiler with dependent variable. They founded variables- high prices of inputs and chicks, high mortality rate, low price of the birds and adulterations in inputs are the major's factors decreasing the gap between revenue and cost.

Although some writers like (Singh et.al 2003) analyzed fix capital, fixed capital investment, variable cost, cost of production, net and gross return for large, median and small firms. Usingnet present value and internal rate of return for profitability and founded higher cost of production on small firms and low on large firms hence efficiency were also high in large firms. Hence poultry production have socio economic factors also which are affect the growth and profitability of poultry production like education level, inputs, finance, access to extension services and veterinary services, labor, infrastructure and government policies were investigated by (Adeola, 2005) by using Frequency distribution and Pearson correlation techniques   The main finding of the study is Govt. intervention in provision of inputs, effective extension and veterinary services should be subsidized, access to financial institutions, training for the farmers on improved production management that enables them to use the available resources efficiently and should increase the productivity.

An economic activity is for profit purpose in the behavior of arational individual which is calculated through Cost- benefit analysis of variables like profit, cost of production per bird and the return from backyard poultry firms and factors which affecting the economic activity of the household.Cost structure and cost function were analyzed by using 3rd degree polynomial and estimated through ordinary least square (OLS). Finding of the model shows that it is a good source of income as well as for family consumption in rural areas.

Some researchers are interested in finding sale price of broiler, price of day old chicks, price feed used in the production, cost of production, and cost of veterinary services and medicine are analyzed by (Dassanayaka et.al 2006) using multiple regression analysis and OLS to estimate the model. Their finding shows that feed conversation rate and feed rate are the factors which affecting the profitability of the broiler production. Economic efficiency, return to scale and profitability of the production were analyzed by (Lamidi, 2007) using descriptive statistics, multiple regression and cost and return analysiswhich finds it profitable among youth farmerswhich can be improved by efficient utilization and need to decrease feed cost, chicken cost, labour cost and veterinary costs. Need of Govt in providing feed and chickens at subsidized rates. In the poultry industry sustainability and high productive system is necessary which is analyzed by (Mohaddes & Mazhari 2008) they used transcendental and cobb-Douglas production function to estimate the data and the result shows that revenue was equal to variable cost. As well as the average profit from the firms was also negative, productivity was also low, so optimization of the input resources is suggested to achieve economies of scale and profitability of the firms.

Although in poultry production different stock holders are involved whose issues and profitability were analyzed by (Abedullah et.al 2005) statistical techniques were used for the analysis of different variables and check the significance by Z test. Their findings are that net margin of commission agent and retailer were higher

than the producer.   (Ng'eno Vincent et.al 2009-10) Analyzed poultry production and products, resource efficiency, optimal production levels, and the levels of small scale poultry farms. Using Cobb-Douglas production function and resource use efficiency index for the analysis of the data. Their contribution shows that input resources are underutilized and some are over utilized in poultry production. Which recommends that labour and resources used in poultry farms should be utilized efficiently by the farmers to get the optimal level of production and output.

Many researchers have worked on poultry production, poultry prices, cost of production, fixed and variable cost, net return and value input to output rate which is analyzed by (Al Khraisat et.al 2009-10) they use production function and statistical tools like average cost mean mode. which shows that this economic activity are mostly adopted by farmers as a primary source of income and marginal proficiency was not good for investors due to high cost of production. (Rana et.al 2012) determined cost, return and profitability of broiler production through tabular and production function techniques. Also used Cobb Douglas production to check the effect of different variables on gross return. They find average total cost, variable cost, and fixed cost on the basis of which they revealed broiler production profitable enterprise. Feeding cost, cost of day old chicks, labour cost has significant effect on return from the broiler production.

Many factors of production like (land, labour, medication and other investments expenses) were analyzed by (Gabdo, 2010) using descriptive statistics, frequency distribution and correlation analysis which recommended that Govt institutions should improve method of poultry farming through awareness and improve the educational level of the farmers. Govt intervention is considered to support high prices of feed and should develop proper market for the bulk of poultry and other poultry products. Although investment pattern, cost and return structure, efficiency, and economic viability of different sized of poultry farms are analyzed by (Manoharam, 2014) estimate it through payback period, net present value, and internal rate of return to measure the economic worth of the investment in integrated broiler production. Net present value, cost benefit ratio and investment has been founded high on largefirms followed by median and small firms. Small firms were highly sensitive to increase in cost and decrease in net return. While production efficiency were increasing with the increase in size of the firm.

Different socio economic factors are also involved in finding the production efficiency in poultry firms like age of the farmer, education level, farm experience, farms size and cooperative membership of the respondents were analyzed by (Ibekwe et.al 2015) they used descriptive statistics and ordinary least square (OLS) on the basis of the regression analysis they recommend that training , seminars, and workshops should be arranged to educate both the cooperative and non-cooperative farmers on modern agriculture. Better quality breeds of broiler and improved production technologies were also recommended for the use in the poultry production.

From previous research literature it is concluded that poultry production is a very good source of income as well as for fulfilling the need of the consumption of rural and urban areas. It is also profitable for the investors and individuals to start the economic activity at small scale in rural areas while on large scale in urban areas. Although there are some factors which are affecting the profitability and production of poultry firms like high cost of vaccination and high cost of feeding which should be regulated by Govt. Efficient utilization of the input resources and providing feed and vaccination at subsidized rate to the farmers which will increase the productivity and profitability of the poultry firms.

Methodology:
Theoretical framework

Independent variables.   Dependent variable:
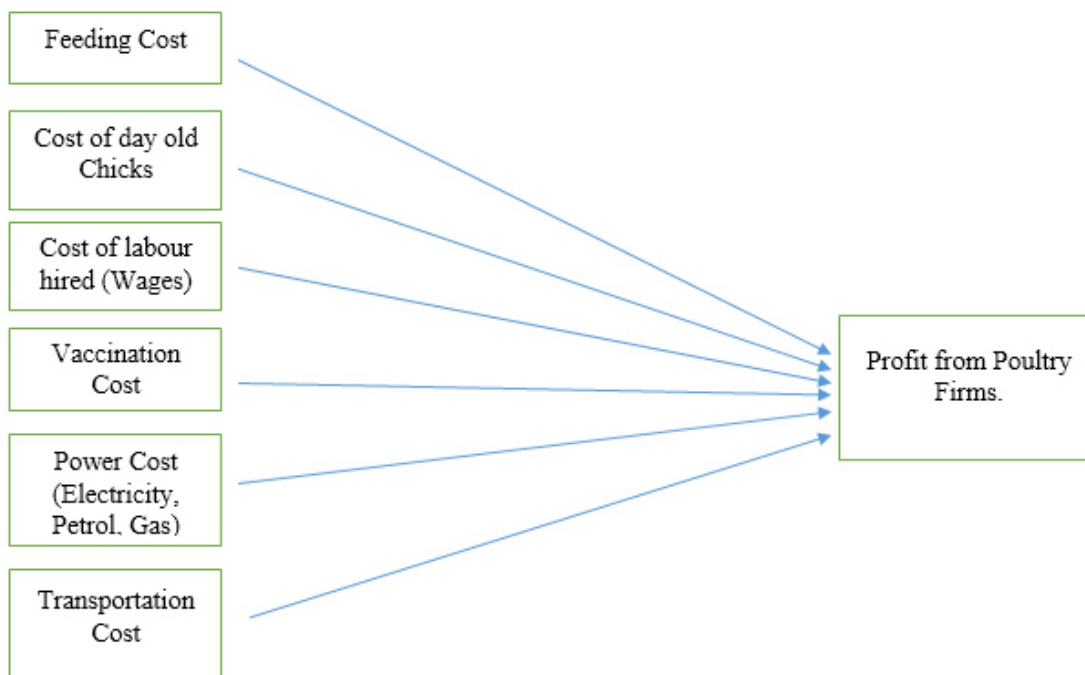
Cost theory
Cost theory is generally related to production. Production facilities, machinery used in the production process and plant workers are all example of costs. Cost theory offers an approach to know cost of production that allows firms to decide the level of output which can give more benefit at less cost.

Cost function
Production is an economic activity and almost every economic activity is bearing some cost. That may be implicit or explicit cost. Implicit are those costs which we cannot measure in monetary or financial term but we can measure it through its opportunity cost. Like in poultry production someone using their own land actually they are not getting its benefit but if they give it on rent he will get in cash or in other form which is the implicit cost. And explicit cost are that which we can measure in monetary term. Like in poultry production paying for day old chicks, vaccination cost, feeding cost etc. Cost function C (Q) is a function of q, which tells us what the minimum cost is for producing q units in output. That is total cost which can further divided into fixed and variable cost.
Total cost = fixed cost + variable cost.
Fixed cost in poultry production is cost of land and equipment's like fans, water pumps, feeding & water tubs and variables cost are cost of electricity, cost on feeding, cost on hired labour (wages), transportation and vaccination cost.

Variables:
1) Opportunity cost is the cost of the land if the firm was not constructed and the farmers were cultivating in it then how much will be the return from the land.
2) Size of theland (Marla's) on how much land the firm is constructed.
3) Numbers of day old chick's number of day old chicks bring to the firm for production.
4) Vaccination cost how much the cost incurred on day old chicks to make it healthy and strong against infections and diseases.
5) Feeding cost is the cost on providing proper food and nutrients from day first up to sale.
6) Electricity coston providing proper heat and light to the broiler.
7) Labor cost is the wages paid to the labour used in the production.
8) Transportation costfrom the poultry plants to the firm.
9) Final output number of final broiler reached to market for the sale and consumption purpose.
10) Total capital how much capital were invested on the construction and equipment's used in the

production. Equipment are like feeding tubs, water tubs used for feeding and water.

Data collection

The study is designed for the optimization of poultry farms for which cross sectional data were collected from the individual firms involved in the economic activity of poultry production. Primary data were collected from the farmers (individuals) of tehsil shabqadar Distt charsadda involved in the production of poultry firms.

Sampling techniques

The data have been collected from the firms through random sampling techniques and designedquestionnaires. Personal interview method were used to collect the data in order to minimize the errors and biasedness in the data since most of the entrepreneurs were illiterate or low level of education.

Statistical techniques

The data have been collected through systematic Sampling techniques.

Cobb-Douglas production function

Cobb-Douglas functions are frequently used in economics to show the relationship between input factors and the level of production. This family of functions takes on the form of $a\,\ell^{a}\,k^{\beta}$, where ℓ is one factor of production (often labor) and k is the second factor of production (often capital). The sum of the exponents $\alpha + \beta$ determines the returns to scale on factor inputs. Cobb Douglas production function were used to analyze the effect of independent variables on dependent variables.

Data Presentation and analysis

For result of research data are used in Quantitative and Descriptive statistics (tables, pie charts and diagrams)

Analysis

In this section, the costs, returns and profitability of raising broiler birds is estimated. In estimating cost of rearing broiler birds total cost per farm per session both variable and fixed cost were considered. Variable costs were cost of inputs like day old chicks, feeding cost, vaccination cost, wages paid to the labour hired, electricity cost and transportation cost. And fixed cost including opportunity cost of the land, capital cost, tools and equipment cost. On the revenue side return on broiler production and profit on broiler production. Return on broiler production is selling the live broiler and byproducts while profit on broiler was obtained by calculating all the cost from the gross return.

$$\pi = TR - TC$$
$$TR = P * Q$$
$$TC = FC + VC$$
$$FC = Oppurtunity\ Cost\ Of\ Land + Capital\ Investd + Tools\ \&\ Equipment$$
$$VC = Day\ old\ chiks + Feeding\ Cost + Vacc\ Cost + Wages + Elect\ Cost + Transp\ Cost$$

Cost of broiler production

A) Variable cost :   Average.

1)	**AVERAGE TOTAL COST OF BROILER PRODUCTION**	**26176.66**
2)	**COST ON DAY OLD PER SESSION PER FIRM.**	45.93
3)	**COST ON HIRED LABOUR PER SESSION PER FIRM.**	11866.66
4)	**VACCINATION COST PER SESSION PER FIRM**	25733.33
5)	**ELECTRICITY COST PER SESSION PER FIRM**	2926.66
6)	**TRANSPORTATION COST PER SESSION PER FIRM.**	4936.66

B) Fixed cost: Average.

7)	**Infrastructure(Building cost)**	**180166.66**
8)	**Tools and equipment cost.**	25250
9)	**Opportunity cost of land**	8816.66

Total Cost (A+B)   521459.22

4.2: Return from sale of live broiler and bi product.

Graph 2 shows gross return from broiler production per farm per session.

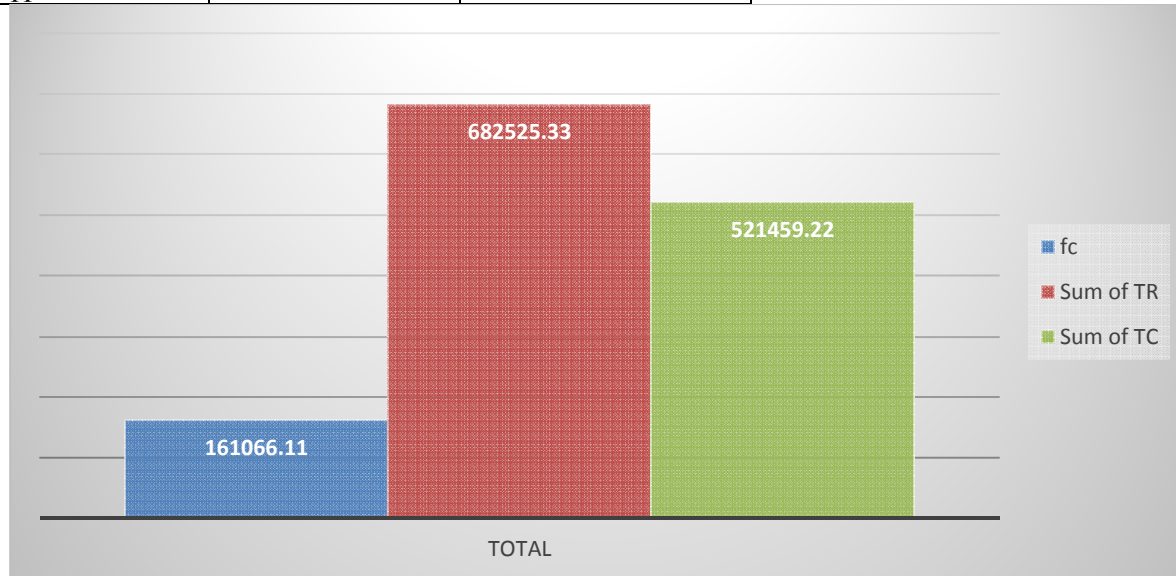| Items.	Per firm per Session
Average return from the sale of live broiler.	663896.83
Average revenue from the sale of byproduct.	18628.5

4.3: Profit of broiler production

Graph 4.1

Profit =		Total Revenue –Total Cost.			
∏=	161066.11	TR=	682525.33	TC=	521459.22

Cost, return and benefit-cost ratio per broiler farm per year:

GRAPH 4.2.

COST AND RETURN	PER FIRM/SESSION.
A) Gross return	682525.33
B) Total variable cost	307180
C) Fixed cost	205416.66
D) Total cost	512596.66
E) Gross margin (A-B)	375345.33
F) Net return (A-C)	477108.67
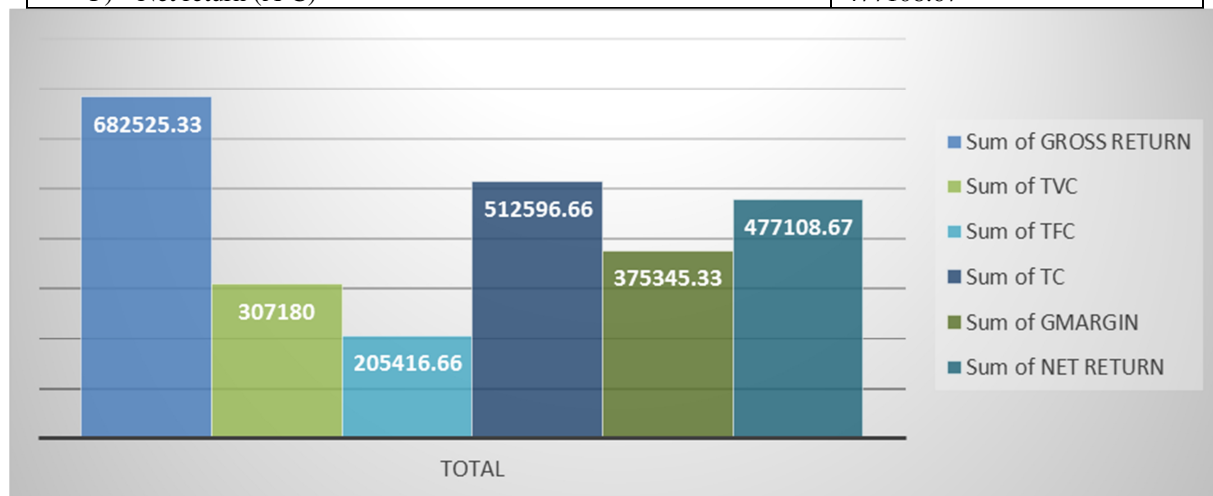
Regression analysis

This study use Cobb-Douglas production function to examine the effects of the independent variables on net returns in broiler production. This model provides a compromise between adequate fit of the data, computation feasibility and sufficient degrees of freedom to allow for statistical testing. The liner form of the model is!

Econometrics model

$Y = \alpha + \ln\beta1 \; Feeding \; Cost + \ln\beta2 \; Cost \; of \; day \; old \; Chicks + \ln\beta3 \; Cost \; of \; Labour \; hired (Wages) +$

$\ln\beta4 \; Vaccination \; Cost + \ln\beta5 \; Cost \; of \; Electricity + \ln\beta6 \; Cost \; of \; Transportation + \mathcal{E}$

Y is gross return from the firm.

ϵ Error term.

Ln is log of the variables.

$\alpha, \; is \; constant \; \& \beta_{1,2----6}$ Which are regression co-efficient of variables.

The effects of some important variable inputs like feeding cost, vaccination cost, cost of labour hired (wages) transportation cost, electricity cost on gross return of the broiler productionare analyzed through cobb-Douglas production function.

Table 4.1

Dependent Variable: LN Gross Return
Method: Least Squares
Date: 12/17/15   Time: 23:43
Sample: 1 30
Included observations: 30

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	7.210383	2.368603	3.04415	0.006
LN(FC)	0.515121	0.396036	1.300693	0.0368
LN (TC on day Old)	-0.541069	0.496423	-1.089935	0.2875
LN (WC)	-0.192938	0.119306	-1.617162	0.1201
LN (VC)	0.367264	0.46905	0.782996	0.042
LN (EC)	0.812334	0.101699	7.987642	0
LN (TC)	-0.638512	0.924984	-0.690295	0.4972
LN (CL)	-0.112837	0.095844	-1.177301	0.2517
R-squared	0.637196	Mean dependent var		13.33889
Adjusted R-squared	0.617212	S.D. dependent var		0.449095
S.E. of regression	0.129217	Akaike info criterion		-1.031463
Sum squared resid	0.367337	Schwarz criterion		-0.657811
Log likelihood	23.47195	Hannan-Quinn criter.		-0.911929
F-statistic	46.89911	Durbin-Watson stat		1.74959
Prob(F-statistic)	0			

Interpretation of the analysis

The effect of some important variable inputs on gross return of broiler production which is analyzed through Cobb-Douglas production function. Dependent variable is gross return(profit) from poultry firms while independent are feeding cost, cost of day old chicks, cost on labour hired(wages), vaccination cost, electricity cost, transportation cost and cost land(rent or opportunity cost of the land. Out of 7 (FC, VC, EC) have significant effect on dependent variable while (TC on day old, Trans cost,wages cost, & cost of land have insignificant effect on gross return of the poultry firm. Value of R square is 0.63 which means that 63 % variation in dependent variable are due to independent variables and 27 % are due to other (residual) terms.

F statistic values of regression is (0.000) which shows the significance of the model which means that the overall model is fit and the independent variables have the effect on dependent variables.

The average value of the co-efficient is 7.2 which shows that if we keep the other variables constant it will increase the revenue by 7.2 units.

The effect of (Feeding Cost) the coefficient of which is positive which shows that one unit increase in feeding cost will increase the total revenue from 0.51 units. Theoretically it is possible like increase in feeding cost will increase the production and production will increase the revenue.

The coefficient of (Total cost on day old Chicks) is negative which shows that one unit increase in cost of day old chick will decrease the total revenue by 0.54 theoretically which is possible like cost of day old chicks cannot increase the revenue it can just increase the total cost which will decrease the total revenue and having no

role in increasing the production which will increase the revenue so that's why the relation between the cost of day old chicks and total revenue is negative.

The coefficient of (Wages) is negative which shows that it will decrease the total revenue by 0.19 if we increase the wages by one unit. Theoretically it is possible like wages cannot increase the productivity which can only increase the total cost which will decrease the total revenue so that's why the relation is negative.

The relationship of (Vaccination Cost) with total revenue is positive which shows that if we increase the vaccination for the broiler which will increase the production like the effect of vaccination will decrease the mortality rate from which production will increase and production will increase the revenue so the relation is positive.So one unit increase in vaccination cost will increase the total revenue by 0.36 units.

Coefficient of (Cost of Power) is positive which shows that if we increase the cost of electricity by one unit which will increase the total revenue by 0.81 units which is theoretically exists like providing normal temperature in summer and winter will increase the cost of electricity which will decrease the mortality rate which will increase the production and higher production will increase higher revenue.

The coefficient of (Transportation and Cost of Land) both have negative effect on dependent variable like they are only cost incurred during production which cannot contribute in production like it can only increase total cost but it will not increase the production so the relation are negative for both the variables.

Test for Heteroskedasticity

F-statistic	0.30503	Prob. F(6,23)	0.9279
Obs*R-squared	2.211236	Prob. Chi-Square(6)	0.8993
Scaled explained SS	1.070028	Prob. Chi-Square(6)	0.9828

H0: there is no Heteroskedasticity.
H1: there is Heteroskedasticity.
From R squared value we can accept or reject the null hypothesis. So here the value is 2.21 which is greater than 0.05 so we accept the null hypothesis which means that there is no Heteroskedasticity in the data.

Test for normality of data
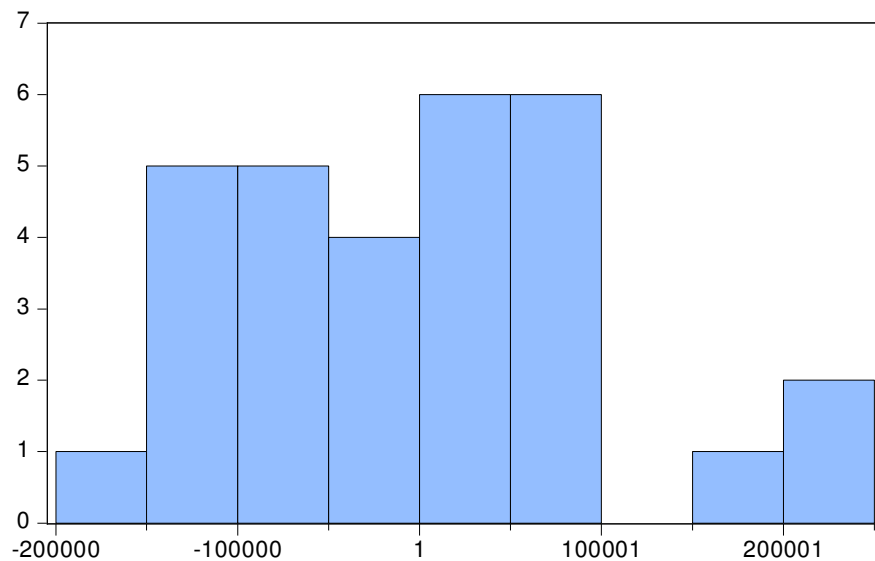
Series: Residuals	
Sample 1 30	
Observations 30	
Mean	-3.37e-10
Median	3226.652
Maximum	228838.4
Minimum	-199672.0
Std. Dev.	102927.5
Skewness	0.371602
Kurtosis	2.770617
Jarque-Bera	0.756211
Probability	0.685158

Jarque-Bera test = 0.75, with p-value 0.683535
H0: data is normal.
H1: data is not normal.
On the basis of Jarque-Bera P values we accept or reject the null hypothesis.
Here the P value is greater than 0.05 so we accept null hypothesis. Which means that the data is normal.

Test for multicollinearity

	LN FC	LN C on D Old	LN W	LN VC	LN C P	LN TC	LN C of LN
LN FC	1	0.6845625653 114682	0.2157727694 921758	0.0191346268 1197783	-0.1953503084 101261	0.1618418074 443002	0.1672679127 466579
LN C on D Old	0.6845625653 114682	1	0.4058520528 400691	0.1582626719 089641	0.4329320052 134337	-0.0151988745 5424069	0.4619951981 664462
LN Wages	0.2157727694 921758	0.4058520528 400691	1	0.0780806603 738778	0.7998281486 294981	-0.2365597069 98436	0.3370481226 624408
LN VC	0.0191346268 1197783	0.1582626719 089641	0.0780806603 738778	1	0.0380987082 3277311	0.1210714289 241049	0.2590979689 528804
LN CP	-0.1953503084 101261	-0.4329320052 134337	-0.7998281486 294981	-0.0380987082 3277311	1	0.3064043861 213478	0.3899189702 673016
LN TC	0.1618418074 443002	-0.0151988745 5424069	-0.2365597069 98436	0.1210714289 241049	-0.3064043861 213478	1	0.3030274387 153503
LN C of LN	0.1672679127 466579	0.4619951981 664462	0.3370481226 624408	0.2590979689 528804	0.3899189702 673016	-0.3030274387 153503	1

Table 4.5 shows that multicollinearity between Independent variables between Feeding Cost, Total cost on Day old, Wages, Vaccination Cost, Cost of Power, Transportation Cost, and Cost of LAND. If the is value is near to Zero it shows that no multicollinearity exists. And if near to 1 which shows the problem of multicollinearity. In the above table there is multicollinearity exists between FC and VC. But in the overall model there is no multicollinearity.

The overall model shows that there is no multi collinearity problem. But there is multi collinearity between FC and VC.

Conclusion and Recommendations:

Conclusion

Optimization of poultry firms has been carried out on the basis of primary data collected from the individuals involved in poultry firms in tehsil Shabqadar Distt Charsadda.Study shows that there are several factors effecting the profitability of the broiler production. Factors like feeding cost, vaccination cost, high mortality rate and wages of labour hired, high feeding cost and high prices of vaccination and high mortality rate are the main factors effecting the profitability of the firms. Lack of basic technical education was founded among the respondents. Findings and field survey shows that individual having technical education about poultry firms was profitable among poultry farmers. Due to lack of soft loans and high input cost many of the farmers quits from poultry production in the study area.

Limitations of the study

The study has reached to its aim, there were some unavoidable limitations. Because of time limit this study was conducted only in small size of the population who were involved in the broiler production in the study area. Therefore to generalize the result for the larger group the study should have involved more farms of different sizes involved in broiler production. With time there is constraint of money resources which keep the study limited up to 30 sample size in tehsil shabqadar Distt charsadda.

Recommendations

The study recommends that Govt and agricultural sectorshould focus on training of the farmers on improved production management to enable them to use the available resources efficiently and increase productivity. Govt should provide feeds and vaccination on subsidized rates to encourage the farmers. Livestock research centers should develop genetically breeds, high quality vaccine and good quality feeds that can improve the overall productivity and profitability of the firms. Individuals or labour doing production of broiler should use optimal level of vaccination and proper feeding to get maximum output by utilizing the resources efficiently. Financial institutes should provide loans at low interest rate to keep the sector productive and profitable.

Hypothesis testing

As the hypothesis of the study to check the normal profit of the broiler production. So analyzing the factors of production, cost and benefit analysis of the selected firms in the study area. Average cost of production, total cost of production, total revenue from the production and net return from the farms were analyzed by using

different techniques and production function to check the profitability of the firms. So the study conclude the production profitable and a source of income in the small scale as well as on large scale. On the basis of the finding of the study the business is giving normal profit so we accept the null hypothesis and conclude as giving normal profit to the owners or individual involved in the broiler production.

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