



AN EVALUATION STUDY ON PRODUCTION IN LANCO INDUSTRY AT SRIKALAHASTI OF CHITTOOR DISTRICT

S. Khootizal Kubara¹ and Prof. M. Chinnaswamy Naidu²

¹Research Scholar, Department of Economics, Sri Venkateswara University, Tirupati.

²Professor, Department of Economics, Sri Venkateswara University, Tirupati.

ABSTRACT

The theory of production plays a pivotal role in theory of firm. The theory of firm deals is related with level of output it will produce to maximize profits. The firm's marginal and average cost of production decides the profits maximizing output besides the demand conditions. In addition to the prices of inputs, the changes in marginal and average costs of production as a result of increase in output determined by the physical relationship between inputs and output. His study found workers influenced output in machinery equipment other than transport equipment industry in post globalization period. The output growth is influenced for fixed capital in pre globalization period. The results shows in pre globalization period factories were influenced output growth in Beverages and iron pipes and related products, Wood and wood products, Paper and paper products, basic chemical industry and transport industry. Based on the review of literature several studies have been undertaken on the performance of industrial production. The present study is a small attempt in this direction. As the calculated t-value of ductile iron pipes is 8.607, liquid metal from MBF is 9.141 and cement is 2.368 which is more than the table value at the rate of 0.01, 0.05 levels of significance. The average compound growth rate for total expenditure is 12.829 which include cost of materials consumed, purchases of traded goods, work in progress, employee benefit expenses, finance cost, depreciation expenses and other expenses. As the calculated t-value for total expenditure is 8.427 which are more than the table value.

KEYWORDS: Production, Output, Manufacturing Sector, Growth Rate, Enterprises.

INTRODUCTION:

Production is an economic activity. Production is used for an activity of producing material using inputs. In economics, production is used in a wider sense. Cost of production is the deciding factor for supply which depends upon prices of raw materials and its physical relation between input and output. So, ultimately, it is the physical relation between input and output which determines the cost of production. So, production represents functional relationship between quantities of inputs and amount of output produced.

The theory of production play pivotal role in theory of firm. The theory of firm deals is related with level of output it will produce to maximize profits. The firm's marginal and average cost of production decides the profits maximizing output besides the demand conditions. In addition to the prices of inputs, the changes in marginal and average costs of production as a result of increase in output determined by the physical relationship between inputs and output.

REVIEW OF LITERATURE

Fotini Voulgaris and ChristosLemonakis (2013) the research is based on financial data of 168 aquaculture firms 133 of them involved in fish farming and 35 vertically integrated in the production of frozen fish. The period of analysis covers the period 2002-2011. Financial data of



those firms were collected from the ICAP Hellas. The results suggest that productivity increases with the size of the firm; age is not a significant factor while exports are critical for their productivity, as well as profitability. Efficient management of resources is also important which enhance profitability as well as productivity which can promote the competitiveness of Greek fisheries.

Henri Ngoa Tabi (2011) the study uses data from the World Bank in the period 1967-2007. Their findings show that the long-term relationship between trade opening and industrialization of the manufacturing sector is not stable and that trade opening negatively affects the manufacturing sector of Cameroon. This result explains the fact that importations of some food products and inputs cannot be reduced. However, Cameroon manufacturing enterprises are apparently unable to satisfy domestic demand.

Pesala Peter (2017) in his study observes that Manufacture of Beverages, tobacco and related products, Textile products, Metal products and manufacture of Other Manufacture Industries employment per unit has been growing at a constant rate during study period. His study found workers influenced output in machinery equipment other than transport equipment industry in post globalization period. The output growth is influenced for fixed capital in pre globalization period. The results shows in pre globalization period factories were influenced output growth in Beverages and tobacco and related products, Wood and wood products, Paper and paper products, basic chemical industry and transport industry.

RESEARCH GAP

Based on the review of literature several studies have been undertaken on the performance of industrial production. A few studies seem to have been made covering all aspects regarding production. The present study is a modest attempt in this direction.

OBJECTIVE OF THE STUDY

- To Study on the production and to identify the major techniques employed to estimate production in Lanco Industries Private Limited.

RESEARCH METHODOLOGY

Secondary data was an important part in this study, especially in the review of literature. Two main sources for the secondary data were collected from the website containing reports, journals, books, magazines, research papers and general information on production and productivity. The literary researches have been collected from some useful journal papers and PDF files have been found online.

RESULTS AND DISCUSSIONS

The performance of variables on production has no influence on the compound growth rate for production.

Table-1
Compound Growth Rate for Production in Million Tonnes

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Ductile Iron Pipes	8.652	0.078	8.607	**
Liquid Metal from MBF	6.941	0.062	9.141	**
Cement	5.337	0.079	2.368	*

** Indicates significant at 0.01 level

* Indicates significant at 0.05 level

The above table-1 depicts the compound growth rate for production in million tones. The average compound growth rate for production from 2005-06 to 2015-16 of ductile iron pipes is 8.652, liquid metal from MBF is 6.941 and cement is 5.337. As the calculated t-value of ductile iron pipes is 8.607, liquid metal from MBF is 9.141 and cement is 2.368 which is more than the table value at the rate of 0.01, 0.05 levels of significance. Hence, it is concluded that there is a significant influence of the variables on production.

The performance of variables on dispatches in manufacturing products has no influence on the compound growth rate for dispatches.

Table -2
Compound Growth Rate for Dispatches in Million Tones

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Ductile Iron Pipes	8.681	0.078	8.625	**
Liquid Metal from MBF	6.981	0.062	8.859	**
Cement	5.395	0.079	2.388	*

**** Indicates significant at 0.01 level**

*** Indicates significant at 0.05 level**

The above table-.2 depicts the compound growth rate for distribution in million tones. The average compound growth rate for dispatches from 2005-06 to 2015-16 of ductile iron pipes is 8.681, liquid metal from MBF is 6.981 and cement is 5.395. As the calculated t-value of ductile iron pipes is 8.625, liquid metal from MBF is 8.859 and cement is 2.388 which are more than the table value at the rate of 0.01 and 0.05 levels of significance. Hence it is concluded that there is a significant influence of the manufacturing products and dispatches in products in million tones.

The performance of variables in capital has no influence on the compound growth rate for capital.

Table -3
Compound Growth Rate for Capital in Lakhs

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Share Capital	0.000	0.000	0.000	
Reserves and Surplus	22.149	0.230	10.997	**
Total Capital	15.903	0.164	11.201	**

**** Indicates significant at 0.01 level**

The above table-3 depicts the compound growth rate for capital. The average compound growth rate for capital from the year 2005-06 to 2015-16 is 15.903 which include the value of share capital and reserves. As the calculated t-value is 11.201 which are greater than the table value. Hence for the, there seems to be a significant influence of variables on capital.

The performance of variables of total expenses has no influence on the compound growth rate for total expenses.

Table -4
Compound Growth Rate for Total Expenses

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Cost of Material Consumed	11.941	0.127	5.607	**
Purchases of Traded Goods	28.637	0.448	4.459	**
Work in Progress	1342.807	-11.010	4.774	**
Employee Benefits Expenses	17.825	0.218	19.374	**
Finance Costs	13.095	0.210	3.493	**
Depreciation Expenses	10.567	0.144	12.511	**
Other Expenses	11.827	0.126	9.781	**
Total Expenses	12.829	0.121	8.427	**

**** Indicates significant at 0.01 level**

The above table-4 reveals about the growth rate for total expenses. The average compound growth rate for total expenditure is 12.829 which include cost of materials consumed, purchases of traded goods, work in progress, employee benefit expenses, finance cost, depreciation expenses and other expenses. As the calculated t-value for total expenditure is 8.427 which are more than the table value. Hence forth, it can be conclude that there being a significant influence of variables on total expenditure.

The performance of variables in cost of materials consumed has no influence on the compound growth rate for cost of materials consumed.

Table-5
Compound Growth Rate for Cost of Materials Consumed

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Coking Coal/Coke	9.394	0.119	4.032	**
Iron Ore/ Iron Ore Fines	13.564	0.171	4.571	**
CRC/MS Scrap	1937.223	-9.806	5.126	**
Others	9.359	0.155	2.920	**
Total Expenses	11.937	0.127	5.610	**

**** Indicates significant at 0.01 level**

The above table-5 shows that the compound growth rate of cost of materials consumed. The average compound growth rate for materials consumed from 2005-06 to 2015-16 is 11.937 which includes coking coal(9.394), iron ore or iron ore fines (13.564), CRC or MS Scrap(1937.223) and other expenses is (9.359). As the calculated t-value of all the materials consumed is 5.610 which is higher than the table value at the rate of 0.01 and 0.05 level of significance. Hence forth, there is a significant influence in the variables on materials consumed.

The performance of variables of employee benefit expenses has no influence on the compound growth rate for employee benefit expenses.

Table-6
Rate for Employee Benefit Expenses

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Salaries, Wages and Other Benefits	17.292	0.216	23.346	**
Contribution of Provident Fund	16.919	0.349	6.723	**
Employee Welfare	24.260	0.429	9.823	**
Total Cost to the Company	17.859	0.218	24.517	**

**** Indicates significant at 0.01 level**

The above table-6 depicts that the compound growth rate for cost to the company employees. The average compound growth rate for cost to the company is 17.859 which include 17.292 as salary, wages and other benefits, 16.919 as contribution to provident fund and 24.260 as employee welfare benefits. As the calculated t-value of all the variables is 24.517 which is higher than the table value at the rate of 0.01 and 0.05 levels of significance. Hence forth there is a significant influence in the variables on the cost to the company.

The performance of variables for finance cost has no significant influence on the compound growth rate for finance cost.

Table-7
Compound Growth Rate for Finance Cost

Variable	Growth	Coefficients Value	T-Values	Level of Significance
Interest Expenses	10.491	0.173	3.474	**
Loss on Exchange Difference to the Extent Considered as Finance Cost	21.627	5.248	0.327	@
Other Finance Cost	21.189	0.468	3.912	**
Total Finance Cost	11.227	0.191	3.071	**

**** Indicates significant at 0.01 level**

@ Indicates not significant at 0.05 levels

The above table-7 depicts that the compound growth rate for finance cost. The average growth rate for finance cost is 11.227 which includes interest on expenses is 10.491, loss on exchange difference to the extent considered as finance cost is 21.627 and other finance cost is 21.189. As the calculated t-value of all the finance cost is 3.017 which is higher than the calculated table value at the rate of 0.01 and 0.05 level. Henceforth, there is a significant influence in the variables of the finance cost.

MAJOR FINDINGS

The performance of variables on production has a significant influence on the compound growth rate for production.

1. The performance of variables on dispatches in manufacturing products has a significant influence on the compound growth rate for dispatches.
2. The performance of variables in capital has a significant influence on the compound growth rate for capital.
3. The performance of variables of total expenses has been a significant influence on the compound growth rate for total expenses.
4. The performance of variables in cost of materials consumed has a significant influence on the compound growth rate for cost of materials consumed.
5. The performance of variables of employee benefit expenses has a significant influence on the compound growth rate for employee benefit expenses.
6. The performance of variables for finance cost has a significant influence on the compound growth rate for finance cost.

CONCLUSION

In the economic, production is used in a wider sense. Cost of production is the deciding factor for supply which depends upon prices of raw materials and its physical relation between input and output. So, ultimately, it is the physical relation between input and output which determines the cost of production. As the calculated t-value of all the materials consumed is 5.610 which is higher than the table value at the rate of 0.01 and 0.05 level of significance. Hence forth, there is a significant influence in the variables on materials consumed. . The average growth rate for finance cost is 11.227 which includes interest on expenses is 10.491, loss on exchange difference to the extent considered as finance cost is 21.627 and other finance cost is 21.189. The average compound growth rate for capital from the year 2005-06 to 2015-16 is 15.903 which include the value of share capital and reserves. As per the calculated t-value is 11.201 which are greater than the table value.

REFERENCES

- Solow, Robert M., (1957), 'Technical Changes and Aggregate Production Function', Review of Economics and Statistics, Vol.39 (3).
- Teshome Adugna(2014), Impacts of Manufacturing Sector on Economic Growth in Ethiopia: A Kaldorian Approach, Journal of Business Economics and Management Sciences, Vol. 1(1).
- Mukherjee, K and Subhash C. Ray., (2004), "Technical Efficiency and its Dynamics in Indian Manufacturing: An Inter-state Analysis", University of Connecticut, Economics Working Paper Series, No. 18, July.
- Bernard, A.B. and Steven N. Durlauf., (1995), "Convergence in International output". Journal of Applied Econometrics, Vol.10 (2).
- [James R. Tybout](#) and [M.Daniel Westbrook](#) (1995), "Trade liberalization and the dimensions of efficiency change in Mexican manufacturing industries", Journal of International Economics, Volume.39, Issue 1-2, pp: 53-78, August 1995.

Ragnar Torvik(2002), “Natural resources, rent seeking and welfare”, Journal of Development Economics, Vol. 67.

Charles R. Hulten, Esra Bennathan, and Sylaja Srinivasan(2006), “Infrastructure, Externalities, and Economic Development: A Study of the Indian Manufacturing Industry”, The World Bank Economic Review, Vol. 20, No. 2, pp. 291–308, 2006.