

**Descriptive study of Logistics Management at Steel Industry through selected financial indicators**

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**Abstract:**

Logistics is a science of management of handling goods, information, and other resources which even includes energy and people. Value in logistics is primarily expressed in terms of time and place. Products and services have no value unless they are in the possession of the customers when (time) and where (place) they wish to consume them. It is important to measure the performance of the logistics management. The logistics performance can be measured by financial data.

In this study few of the financial indicators, like ROCE, EBIT, Working Capital, Inventory Turnover, have been taken for the assessing the performance of the logistics in Lloyds Steel Industry situated in Wardha. The results provides insights into the performance of logistics in the company.

Keywords: Logistics management, Performance Indicator, Financial Indicator

**1. Introduction:**

Following are the performance Indicator of Logistics Management.

PBIDT Margin measures the extent to which cash operating expenses use up revenue. PBIDTM is a rough approximation for cash flow and it is calculated as revenues - expenses (excluding taxes, interest & depreciation). PBIDTM is the acronym for Earnings before Interest, Taxes, & Depreciation. It is a non-GAAP metric that is measured exactly as stated. All interest, tax, depreciation entries in the Income Statement are reversed out from the bottom line Net Income. It purports to measure cash earnings without accrual accounting, canceling tax-jurisdiction effects, and canceling the effects of different capital structures.

PBIDTM differs from the operating cash flow in a cash flow statement primarily by excluding payments for taxes or interest as well as changes in working capital. PBIDTM also differs from free cash flow because it excludes cash requirements for replacing capital assets (capex).

EBIT takes all operational profits into account, i.e. exclusive interest payments and income taxes and is an indicator of a company's profitability. The reason for the use is that the measurement excludes the effects of capital structures and tax rates, thereby making cross-company comparisons possible.

This is one of the important measurements to judge the logistical efficiency. EBIT in % is measured when the comparative study has to be done with competitors or with performance of earlier years of the same company.

ROCE indicates how efficient and profitable a company's investments are, or in other words, How well the assets are used. As the operating profit is related to the investments it requires, this measurement should reflect more specifically the relative operational success of a company. This is one of the important measurements to judge the logistical efficiency. ROCE in % is measured when the comparative study has to be done with competitors or with performance of earlier years of the same company.

In accounting, the Inventory turnover is a measure of the number of times inventory is sold or used in a time period such as a year. The equation for inventory turnover equals the cost of goods sold divided by the average inventory. A low turnover rate may point to overstocking, obsolescence, or deficiencies in the product line or marketing effort. Inventory turnover ratio measures the velocity of conversion of stock into sales. Usually a high inventory turnover/stock velocity indicates efficient management of inventory because more frequently the stocks are sold; the lesser amount of money is required to finance the inventory. A low inventory turnover ratio indicates an inefficient management of inventory. Inventory turnover is one of the important measures to judge logistical performance.

Debtors' turnover ratio or accounts receivable turnover ratio indicates the velocity of debt collection of a firm. In simple words it indicates the number of times average debtors (receivable) are turned over during a year. The higher the debtors' turnover, the greater is the efficiency of credit management.

Working capital cycle, also known as the asset conversion cycle, operating cycle, cash conversion cycle or just cash cycle, is used in the financial analysis of a business. The higher the number, the longer a firm's money is tied up in business operations and unavailable for other activities such as investing. The cash conversion cycle is the number of days between paying for raw materials and receiving cash from selling goods made from that raw material.

A short cash conversion cycle indicates good working capital management. Conversely, a long cash conversion cycle suggests that capital is tied up while the business waits for customers to pay. The longer the production process, the more cash the firm must keep tied up in inventories. Similarly, the longer it takes customers to pay their bills, the higher the value of accounts receivable. On the other hand, if a firm can delay paying for its own materials, it may reduce the amount of cash it needs. In other words, accounts payable reduce net working capital. This is one of the important measurements to judge the logistical efficiency.

There are other performance indicators also which will be discussed as the study progressed.

**2. Objectives:**

- a) To identify the logistics performance based on financial indicators
- b) To describe the each financial indicator over the last ten years

**3. Scope of the study:**

This study is based on the data collected for the Lloyds Steel Industries Limited, Wardha. The secondary data of 2001-2010 was considered.

**4. Research Methodology:**

This is the descriptive study based on secondary data. The study is based on secondary data collected from various sources. The data is of financial nature for the period of 2001- 2010. The data has been analyzed and compared with earlier years to draw a meaningful conclusion.

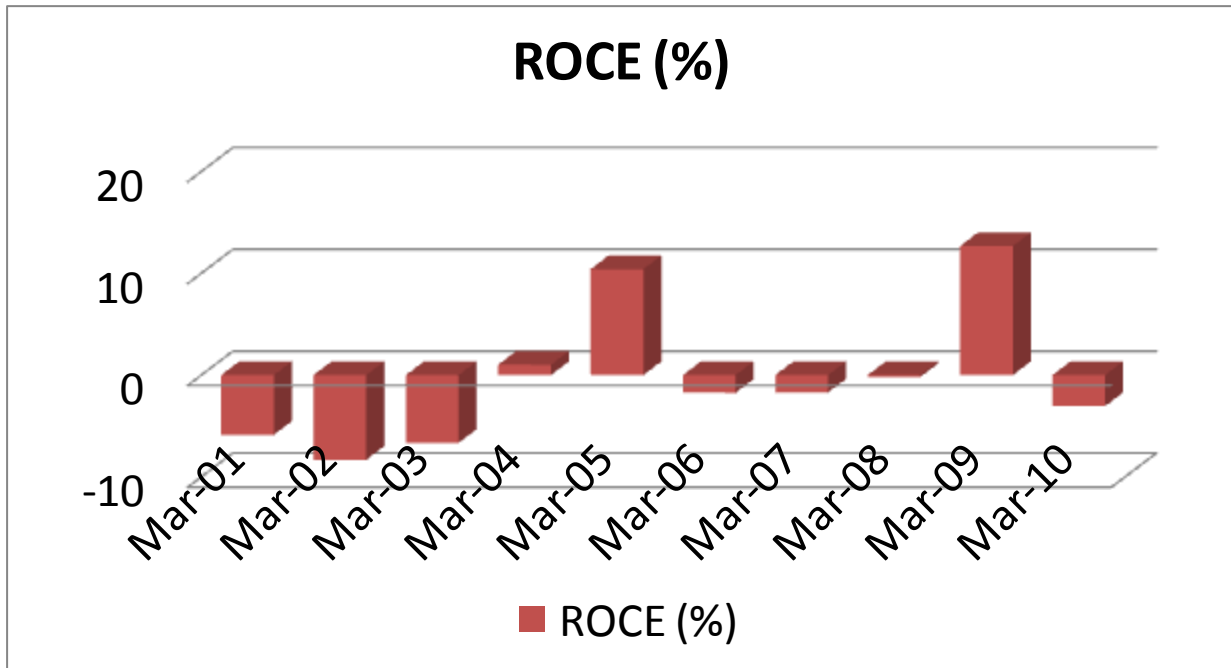
**5. Data Analysis and Presentation:**

**ROCE – RETURN ON CAPITAL EMPLOYED**

ROCE indicates how efficient and profitable a company’s investments are, or in other words, How well the assets are used. As the operating profit is related to the investments it requires, this measurement should reflect more specifically the relative operational success of a company. This is one of the important measurements to judge the logistical efficiency.

$$ROCE = EBIT / (TOTAL ASSETS – CURRENT LIABILITIES)$$

DESCRIPTION	Mar-10	Mar-09	Mar-08	Mar-07	Mar-06	Mar-05	Mar-04	Mar-03	Mar-02	Mar-01
ROCE (%)	-3.05	12.67	-0.17	-1.71	-1.73	10.40	1.02	-6.65	-8.32	-5.86

**Analysis:**

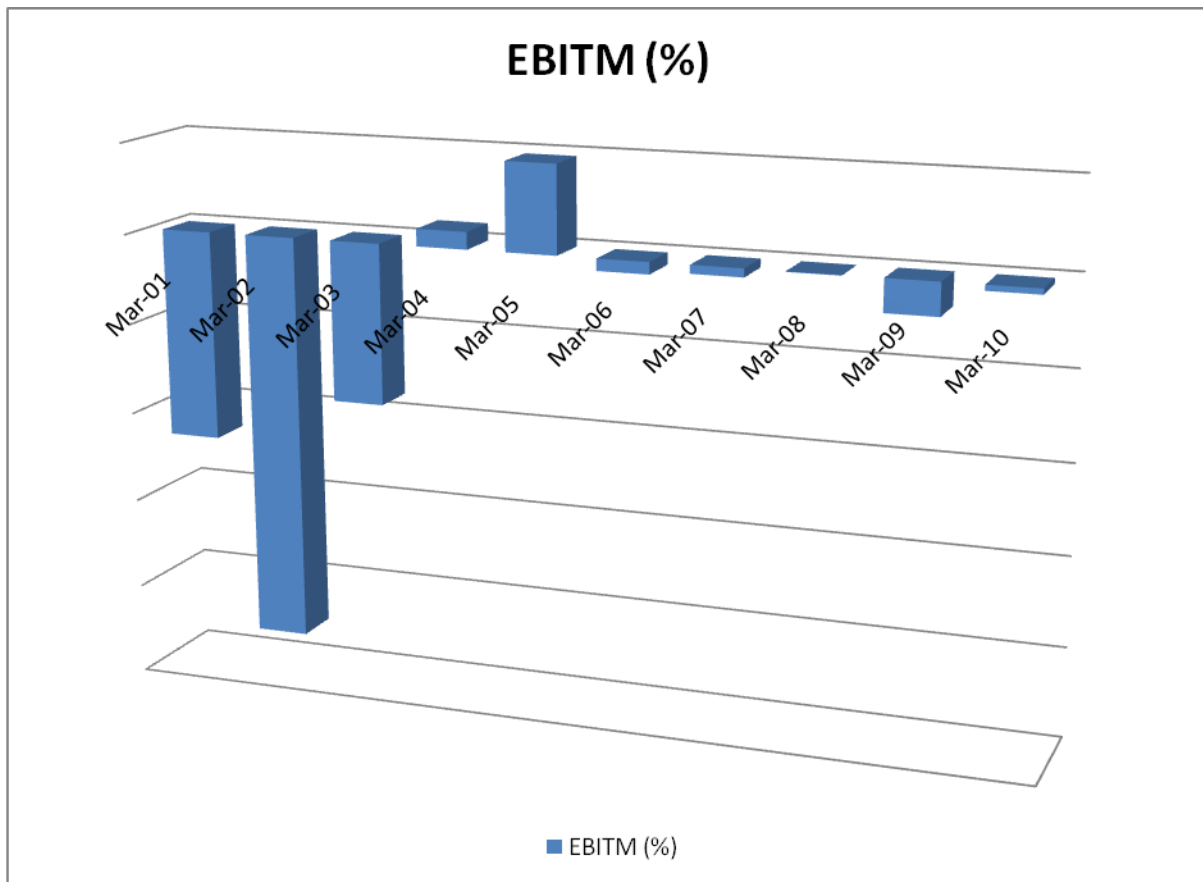
Company has positive ROCE only in the financial year 2004-05 and 2005-06. In rest of the year ROCE is negative. This performance indicates the inefficiency of the company to use the total assets available with them. The capital employed is not able to generate the positive return for the company. Here proper capital utilization should increase.

**EBIT MARGIN (EBIT %) – EARNINGS BEFORE INTEREST AND TAXES**

EBIT takes all operational profits into account, i.e. exclusive interest payments and income taxes and is an indicator of a company's profitability. The reason for the use is that the measurement excludes the effects of capital structures and tax rates, thereby making cross-company comparisons possible. This is one of the important measurements to judge the logistical efficiency.

EBIT % = OPERATING PROFIT / REVENUES

DESCRIPTION	Mar-10	Mar-09	Mar-08	Mar-07	Mar-06	Mar-05	Mar-04	Mar-03	Mar-02	Mar-01
EBITM (%)	-0.62	-3.58	-0.07	-0.94	-1.31	9.63	1.89	-17.72	-45.08	-23.19

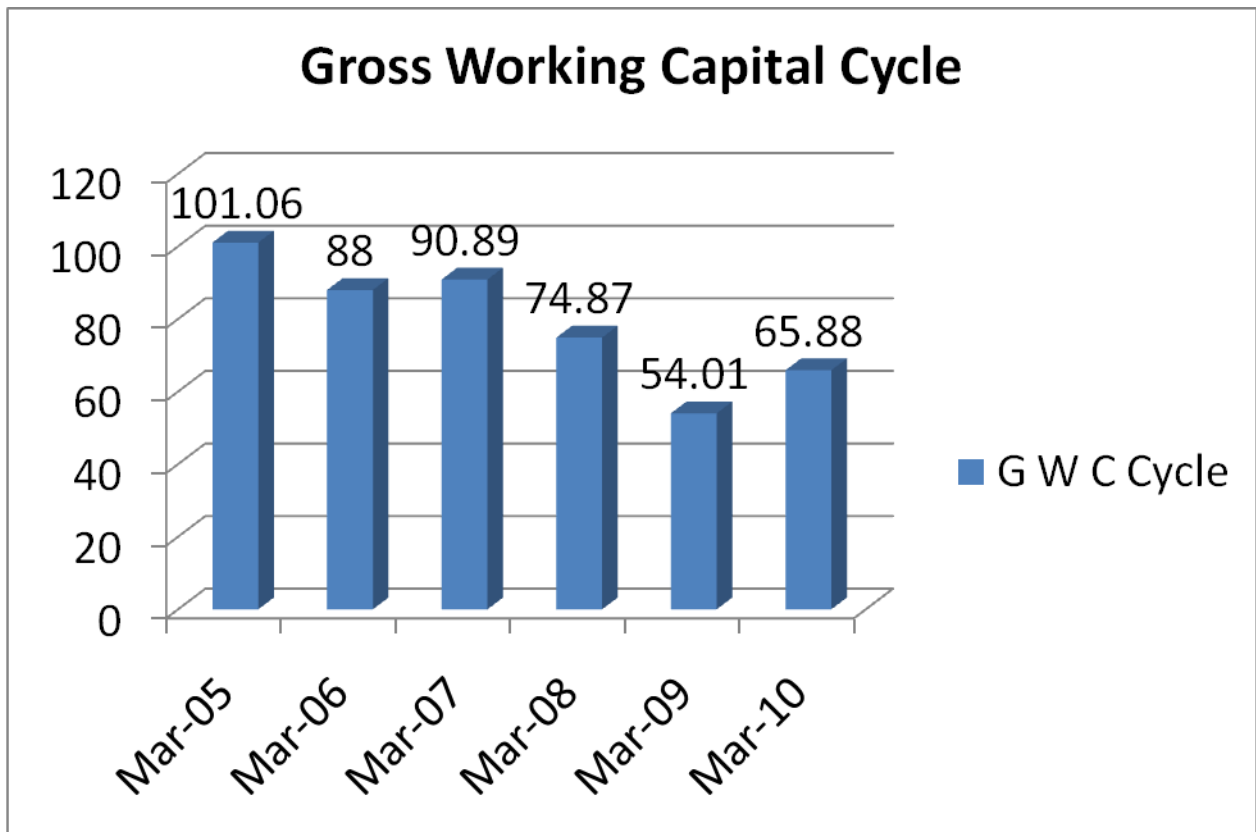
**Analysis:**

Company has positive EBITM only in the financial year 2004-05 and 2005-06. In rest of the year EBITM is negative. In fact in the year 2001-02 the EBITM was -45.08. Negative EBITM is normally a big threat for survival of the company. This performance indicates the inefficiency in the operations.

**Working Capital Cycle**

Working capital cycle, also known as the asset conversion cycle, operating cycle, cash conversion cycle or just cash cycle, is used in the financial analysis of a business. The higher the number, the longer a firm's money is tied up in business operations and unavailable for other activities such as investing. The cash conversion cycle is the number of days between paying for raw materials and receiving cash from selling goods made from that raw material. A short cash conversion cycle indicates good working capital management. Conversely, a long cash conversion cycle suggests that capital is tied up while the business waits for customers to pay.

year	Mar 2005	Mar 2006	Mar 2007	Mar 2008	Mar 2009	Mar 2010
Gross working capital cycle in days	101.06	88	90.89	74.87	54.01	65.88



#### Analysis:

Gross working capital cycle during the period 2005-06 was worst for the company, i.e. 101.06 days. From that period it has shown relative improvement. The working capital cycle was best in the year 2008-09, i.e. 54.01. Although there are ups and down in the gross working capital cycle, it has zig-zag trend towards improvement. Lloyds Steel should improve this cycle on continuously basis, in order to secure profit.

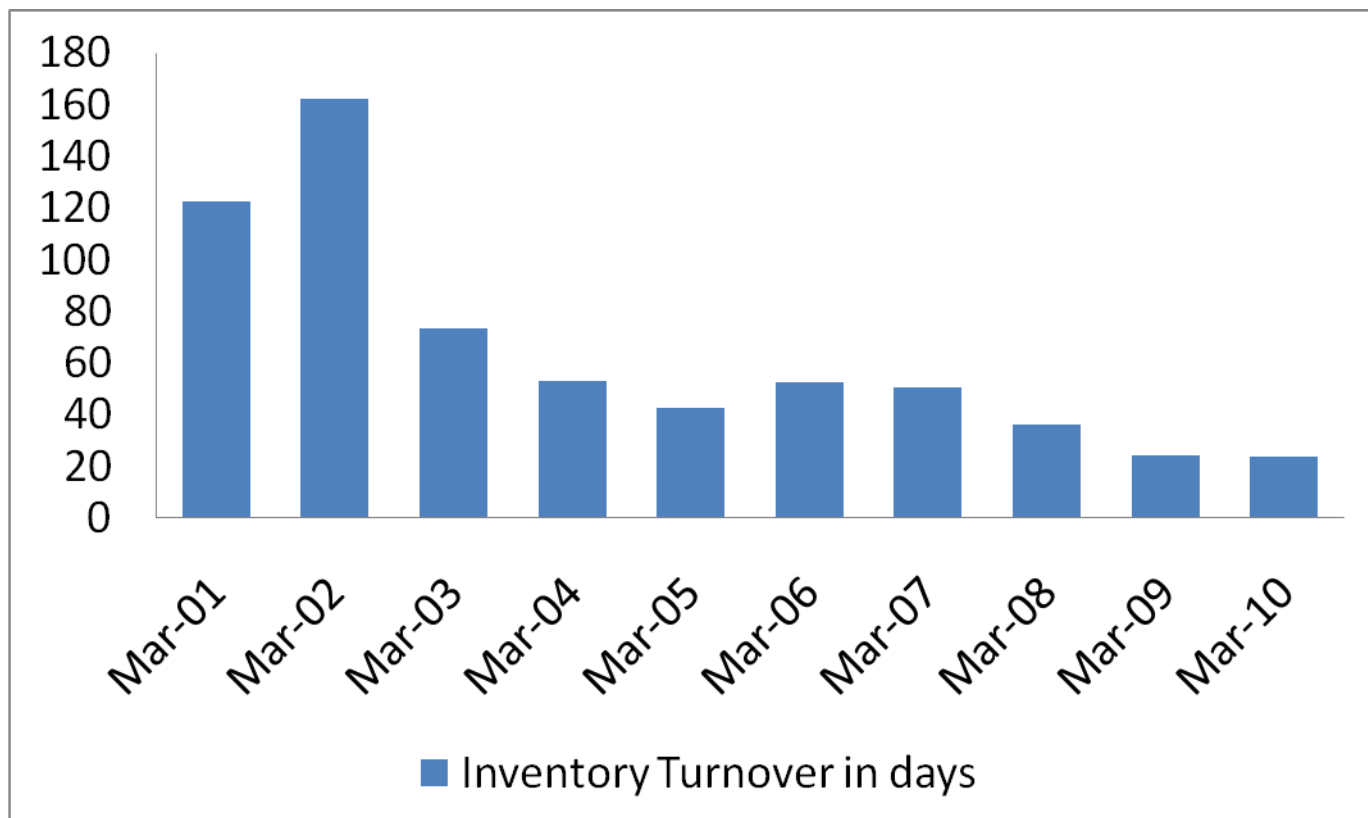
#### The inventory management

In accounting, the Inventory turnover is a measure of the number of times inventory is sold or used in a time period such as a year. The equation for inventory turnover equals the cost of goods sold divided by the average inventory. A low turnover rate may point to overstocking, obsolescence, or

deficiencies in the product line or marketing effort. Inventory turnover is one of the important measures to judge logistical performance.

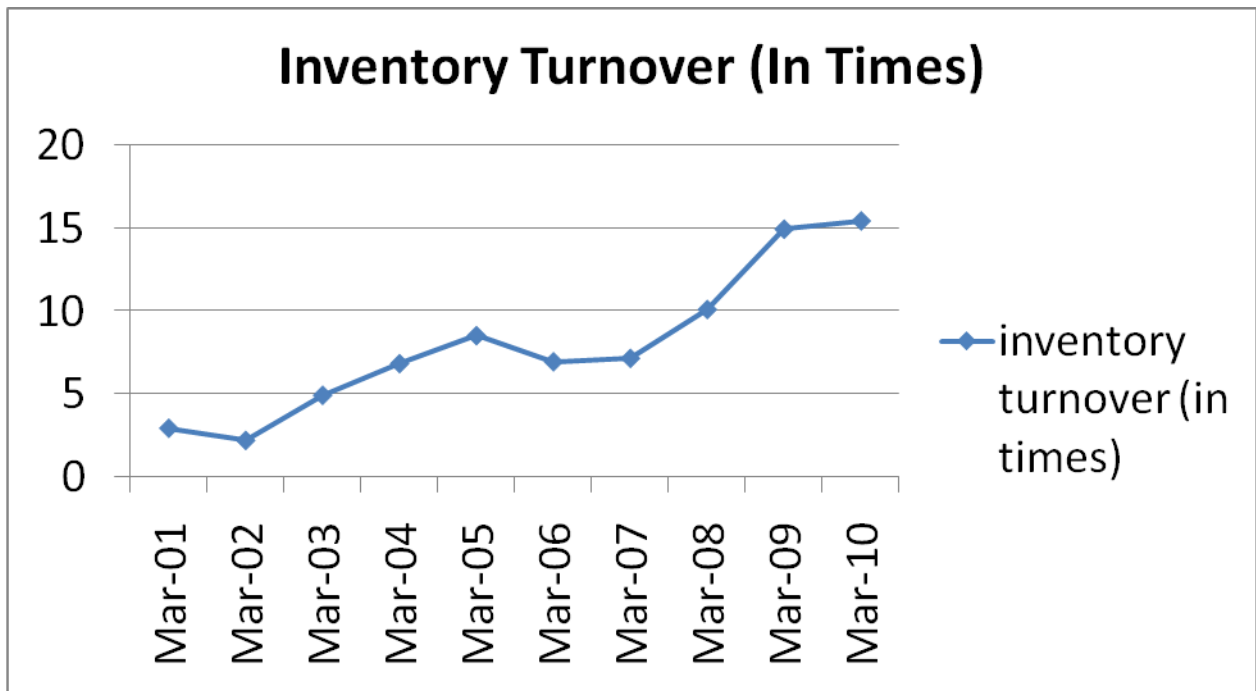
#### **Inventory Turnover in Days:**

DESCRIPTION	Mar-10	Mar-09	Mar-08	Mar-07	Mar-06	Mar-05	Mar-04	Mar-03	Mar-02	Mar-01
Inventory Days	23.65	24.45	36.12	50.82	52.35	42.72	53.17	73.52	162.07	122.35



#### **Inventory Turnover (In Times)**

DESCRIPTION	Mar-10	Mar-09	Mar-08	Mar-07	Mar-06	Mar-05	Mar-04	Mar-03	Mar-02	Mar-01
Inventory Turnover(x)	15.43	14.93	10.11	7.18	6.97	8.54	6.86	4.96	2.25	2.98

**Analysis:**

The inventory management in 2008-09 and 2009-10 was best in the company history i.e. 14.93 & 15.43 times respectively. The graph shows relatively continuous improvement in inventory turnover. Lloyds has good inventory turnover as compare to rest of industry average. Rest of the industry average inventory turnover is 6.4 times & 5.8 times in the year 2008-09 and 2009-10 respectively. Even among the close competitors, Lloyds Steel has fairly good inventory turnover.

**6. Conclusion:**

The capital employed is not able to generate the positive return for the company. Here proper capital utilization should increase. Negative EBITM is normally a big threat for survival of the company. This performance indicates the inefficiency in the operations. Although there are ups and down in the gross working capital cycle, it has zig-zag trend towards improvement. Lloyds Steel should improve this cycle on continuously basis, in order to secure profit. Lloyds has good inventory turnover as compare to rest of industry average. Rest of the industry average inventory turnover is 6.4 times & 5.8 times in the year 2008-09 and 2009-10 respectively. Even among the close competitors, Lloyds Steel has fairly good inventory turnover. Overall, the logistical performance in Lloyds Steel Industries is not found satisfactory on the financial parameters taken in the study.



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