



## **Management of Jindal Steel and Power Limited raw material inventory at integrated IAS industries Preface**

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**Abstract:**The goals of this research are to identify the existing inventory value and IAS compliance status in Jindal steel manufacturing industry. The study findings revealed that in the case of raw materials and WIP valuation, a significant number of manufacturing organizations (48.5%) used weighted average costing methods, followed by LCM/net realised value (30%) methods, while in the case of finished goods valuation, approximately 85% of manufacturing organizations used LCM/net realized value methods. At the 5% significant level, the test of hypothesis result demonstrates that the t-value (42.176) is significantly greater than the test value, indicating that manufacturing businesses are completely compliant with IAS-2 in inventory valuation. Compliance with International Accounting Standards (IAS) in the manufacturing industry encourages fair value accounting for financial reporting purposes while also ensuring full IFRS compliance.

**Keywords:** Inventory, IAS industries, Steel Plant

### **Introduction:**

Every business's primary objective should be to maximize profits, which can only be accomplished by boosting output while simultaneously reducing costs. The price of raw materials accounts for around 70–80 percent of the total cost of producing pig IAS in consolidated IAS companies. The total quantity of currency spent on raw supplies is more than the total quantity spent on labor, machinery, and other costs combined. These businesses have units that operate nonstop, such as coke ovens, blast furnaces, sinter plants, and SMS systems, among others.

Because of this, the supply of raw materials must never be disrupted under any circumstances. Not only does this have a negative impact on production, but it may also create problems with certain pieces of machinery, such as the rebellious of a blast heater, coke kiln, or SMS Convertor. Inventory valuation methods have significant impact on financial statement of the organization. Without accurate inventory valuation methods can cause either understated or overstate net profit for the company and also impact on the amount of tax payment by the organization (Askew, 2012).

Inventory valuation allows companies to provide a monetary value for items that make up their inventory (stock). Inventories are usually the largest current asset of a business and are as important as funds (cash). It is a form of fund tied up in assets (current assets). It's proper or accurate measurement or valuation cannot be overlooked as it forms a greater percentage of an enterprise's current assets in particular and a total asset in general (Fink, 2008). Level of inventories differs from industry to industry. Holding inventory significantly affected by nature of production process, product attributes, market demands, raw material used in the production process.

For manufacturing companies, inventories usually represent approximately 20 to 60 percent (%) of their assets (Morgan, 2007). If inventory is not properly valued, it may result that expenses and revenue not be properly matched and a company could make poor business decisions that will affect the company's profit.

Inventory in manufacturing company or concern comprises of the following components: Raw materials inventory, Work-in-progress (semi- finished goods) inventory and finished goods inventory (Muthupandian, 2008).

However, selection of inventory valuation technique is momentous for the organization due to different techniques or methods in the valuation of inventories produce different values of inventory.

Inventory valuation method used by an enterprise is determined by a number of reasons, these include inflation, differences in quantity discounts, frequent changes in prices of commodity, buying from different suppliers and also the nature of items or product and to some extent selection be influenced by the management policy of the organization as well (Barth, 2008).



In the modern day, every steel company has difficulties in lowering manufacture costs, but at the similar period the cost of uncooked resources has multiplied by four or five over the course of the previous five years. Likewise, there is a constant variance in the supply in the steel market, which makes it more difficult for steel manufacturers to fulfil the criteria of the raw material market in rappings of the right number at the right period lacking sacrificing the class in exchange for the lowest possible fee.

As a result, the management of raw material inventories is the most practicable area that could provide incentives for lowering manufacturing costs and increasing revenues.

This is accomplished by balancing supply and request through the incorporation of raw ingredients addicted to the making method in a manner that minimises alterations in their chemical and physical properties while also reducing the amount of money spent on capital. In order to do this, a business consumes to recognise the ups and fluffs of demand and devise an inventory management system that can adapt to these shifts in demand while also enhancing the cooperation between the many operations that occur throughout the distribution network.

The long-term impartial of India's country wide steel strategy is to establish a steel sector in terms of modernization, value for the money, long lasting durability, product line meeting its international standards focusing on productivity and efficiency emphasising the policy. In order to do this, domestic output will need to be higher than 100 MT annually by 2019-2020. This translates to a composite annual budding rate of 5.3% each year across the board.

In order to accomplish this objective, the iron and STIN should have developed and be operating at their full production capacity. In order to accomplish this goal, each company will need to place a significant emphasis on developing a system for the management of its raw materials. This will allow the companies to obtain high-quality raw supplies at the bottommost possible rate and thru the fewest interruptions to their working capital. The investigated business has so far accomplished 8 percent of its potential in terms of the manufacturing of hot metal.

But in order to satisfy the demand and cut down on the cost of production, businesses should operate at their full capacity. This is because each individual business has to handle the issue with the way that they manage their raw material inventories. A few industries have taken on a global character, with one region's progress affecting the whole sector. Before the middle of the twentieth century, most pig iron production took place in small towns.

### **The resolve of this Event Study research**

- Research the significance and criticality of managing raw material inventories and keeping them under control in relation to a number of different production rates.
- Investigate the many roles and variables that have an effect on the management of the raw material stock items.

### **Research of raw material inventory**

#### **Growing demands for Pig Iron/Steel:**

All industrial activity relies on the usage of pig iron/steel as a fundamental substantial, and its use is an indicator of industrial success. In 1991, a series of bold measures and liberalizations in the industrial sector were implemented, which has boosted industrial and economic growth. Pig iron/Steel usage is predicted to rise by 18-20% in the next years due to an increase in industrial and construction activities.

Only 11% of the world's output travelled outside of the US in 1950. Currently, 40 percent of global production and input are handled via international commerce. The second part of the 1990s has seen the greatest increase. Best china and Brazil, among others, devoted considerably in the production of toughen.

The falling demand for steel throughout the globe had an effect on the domestic market, which was already being harmed by the influx of less expensive goods from other countries. In addition, the Indian economy has slowed down significantly, and there have been almost no new investments made in the organisation part.

They overlap per significant additional size that was other in the premature 1990s as a result of a misjudgement of the protection of local demand. As a consequence, this had led to a negative circle that badly impacted the industry's financial prospects.

The level of economic development in any given nation is related to both the manufacturing of pig iron as well as the utilization of pig iron on a per capita basis. Soon after India gained its independence, this was one of the essential causes that gave the country's industry a major push in the right direction. It was anticipated that the pig iron industry would spearhead the main point of pecuniary expansion.

Pig iron existed the major spring that was used in the process of establishing the organization and luring the subordinate and tertiary sectors down the road of expansion.

Tables 1 and 2 provide approximations of the amounts of ore, petroleum, and fluidity needed to produce one tonne of Pig Iron and one tonne of Sinter below Indian Conditions, respectively.

**Table 1: Ore amount aimed at one-ton Pig Iron**

Materials	Quantity (In Ton)
Iron ore / Sinter	1.6 - 1.7
Coke	0.7 - 0.8
Lime Stone	0.3 – 0.4
Manganese ore	Around 50 kg
Quartzite	For adjustment

**Table 2: Ore quantity for one-ton Sinter**

Constituents	Quantity
Iron ore Fines	840 – 940
Coke dust	65 – 75
Lime Stone	85 – 115
Dolomite	90 -125
Shingle	15 -35

**Conclusion:**

Steel supply and demand during the former four and a half eons have been primarily obsessed by the expansion of the STIN in China and other Asian nations. Since the beginning of the 1990s, China has seen absolutely phenomenal expansion of its economy. The deceptive feeding of steel in Kaput steel went since 69 Mt in 1991 to 103 Mt in 1996 and 255 Mt in the year 2003. This represents a rise from the initial consumption of 70 Mt. At this time, China is making significant progress in the construction of its infrastructure. Local production of IAS is adequate to encounter the request in the country. China is one of the largest shippers of pig hard after India, and MINL has a part of this market.

This is because China does not have a superior quality of important raw materials like iron ore. As a worldwide transporter, MINL has a competitive advantage. MMTC is responsible for the



implementation of the marketing plan. The long-term impartial of India's nationwide steel strategy is to establish a steel sector that is up to international standards in terms of its level of modernization and productivity, and that can meet the diverse demands for steel. The goal of the government's policies would consequently be to increase the country's international standing, not simply in terms of not just in footings of price, excellence, and creation mixtures, but too in footings of worldwide standards of effectiveness and profitability.

To accomplish this, domestic output will need to be more than 100 MT annually by 2019–2020. This translates to a multiple annual development degree of 6.4% each year across the board. In order to accomplish this objective, the iron and STIN in India has to grow and produce at its fullest capacity. Up to this point, MINL has accomplished 8% of its potential in terms of the creation of hot brass. In order to satisfy the demand and bring down the overall production costs, MINL should operate at its utmost capacity.

The manufacturing of pig iron is traditionally done in a blast furnace, which is also the method that is by far the most cost-effective.

One Blast Furnace with a usable capacity of 1,915 MT has been erected with the intention of producing nearby 1,110,010 tons of unsophisticated hot metal per year.

The straightforward oxygen heater, which has not yet been erected as part of development step Phase – II, is the traditional and, by a significant margin, the most cost-effective method for producing steel as of BF hot metal Binary different amounts of 79 tons.

With the electronic program, one evaluation device is well suited, adaptable to each client to judge the condition of the facility to identify the main axis of the improvements and different, specific devices and strategies for the creation of business plans, this electronics choice with the device of improvement in the meager performance measures of all the most method and efficient.

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