A Study of Inventory Control Practices and Their Impact on Profitability in Micro, Small and Medium Enterprises (MSMEs)

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Abstract

Inventory control is a crucial component of working capital management. It plays an important role in determining the profitability and survival strength of micro, small and medium enterprises (MSMEs). This MSME face number of problems like lack of financial resources, lack of knowledge, volatile demand, etc. An ineffective inventory system can cause higher carrying costs, stockouts, liquidity problems and in the end, all these problems affect the profitability of a particular enterprise. The objective of this study is to examine the inventory control practices employed by Micro, Small and Medium Enterprises, to analyse the relationship between inventory control practices and Profitability and to know the factors influencing the inventory control system in Micro, Small and Medium. The study combines existing data from accounting research on MSME and operations management to develop a framework. The paper aims develop a future-oriented conceptual study. This study provides evidence to academic literature by understanding the inventory control – Profitability relationship in a deep manner.

Keywords: Inventory Control, Profitability, MSMEs, Working Capital Management, Cost Accounting

Introduction

Micro, small, and medium enterprises are the backbone of the Indian economy. It strengthens rural, urban and semi-urban localities. It provides earning facilities for micro to medium-level economic growth. However, MSMEs face a lot of problems like financial constraints, untrained labour, lack of awareness, lack of market, competitive pressure, and inventory management is one of the basic challenges. This is a neglected area of management.

In manufacturing enterprises, inventory includes raw material, finished goods, work in progress, stores and spares. Effective management of inventory leads to higher returns, minimum wastage and vice versa. An inefficient inventory control system can cause wastage of material, wastage of time, wastage of money, spoilage, lost sales, customer dissatisfaction, etc. To avoid all these, an effective and suitable inventory control practice should be run in the enterprise to increase profitability.

A large organisation has a strong economic base. Because of that, they use advance technological based inventory system for their business. On the other side MSME typically run in rural to urban locality, hence they often use improper methods. This difference highlights the necessity of an inventory system, which will increase quality saves efforts, time, money and profitability. The present study analyses the use of the current inventory control system and its impact on profitability in a conceptual manner. This study aims to provide a strong foundation as literature for future study evidence in the research field.

Review of Literature

Koumanakos (2008), in his study titled *"**The Effect of Inventory Management on Firm Performance**",* published in the *International Journal of Productivity and Performance Management*, empirically investigates the association between inventory levels and firm profitability. The findings reveal that firms maintaining lower inventory-to-sales ratios demonstrate superior financial performance. The study argues that effective inventory control minimises carrying and obsolescence costs, enhances operational efficiency, and contributes positively to profitability and competitive advantage.

Gill, Biger, and Mathur (2010), through their article *"The Relationship Between Inventory Management and Profitability"* in the *Journal of Business and Economics*, examine U.S. manufacturing firms to assess the impact of inventory efficiency on financial outcomes. The study establishes a statistically significant positive relationship between effective inventory management and profitability indicators such as profit margins and return on assets. The authors emphasise that disciplined inventory control leads to improved liquidity management and sustainable financial performance.

Nyabwanga *et al*. (2012), in their research published in the *African Journal of Business Management*, analyse the effect of inventory management practices on the financial performance of manufacturing firms. The study highlights that the adoption of scientific inventory control techniques, including Economic Order Quantity (EOQ), Just-in-Time (JIT), and ABC analysis, significantly enhances profitability. The authors conclude that efficient inventory practices reduce operational costs, prevent overstocking and stock-outs, and strengthen overall financial stability.

Karimi and Kinyua (2018), in the *International Journal of Academic Research in Business and Social Sciences*, explore the relationship between inventory management practices and organisational performance. Their findings indicate a strong positive correlation between structured inventory control mechanisms and firm efficiency. Specifically, Just-in-Time systems and safety stock management were found to reduce holding and shortage costs, improve workflow continuity, and positively influence organisational profitability.

Rajeev (2015), in the article *"Inventory Management in Small and Medium Enterprises"* published in the *Journal of Supply Chain Management*, focuses on inventory practices adopted by SMEs. The study reveals that a large number of small and medium enterprises continue to rely on traditional and manual inventory systems. However, the research strongly advocates that the implementation of formal inventory control techniques and modern systems can significantly enhance profitability, improve decision-making quality, and support long-term business sustainability.

Objectives of the Study

1. To examine the inventory control practices employed by Micro, Small and Medium Enterprises.
2. To analyse the relationship between inventory control practices and the profitability of Micro, Small and Medium Enterprises
3. To know the factors influencing the inventory control system in Micro, Small, and Medium

Methodology

The research study is based on secondary data collected from published inventory management studies and survey-based research articles. The design is descriptive as it analyses the adoption levels of inventory management practices, and conceptual in nature as it examines the theoretical relationship between inventory practices and profitability.

The research design is conceptual and theoretical

The nature of the data is secondary in this research

Sources of data is journal (JETIR), research articles, reports, and books

Inventory Management Software (IMS): Automated inventory systems enhance inventory visibility, accuracy, and real-time decision-making, leading to reduced stockouts, lower holding costs, and improved profitability.

Manual Record-Keeping (MR): Manual systems are prone to errors, delays, and information asymmetry, adversely affecting inventory turnover and increasing operational costs.

ABC Analysis: ABC classification enables selective control over high-value items, optimising resource allocation and reducing overall inventory costs.

Safety Stock (SS): While safety stock reduces stockout risk, excessive buffering leads to higher carrying costs and inefficient working capital utilisation.

Just-In-Time (JIT): JIT minimises inventory holding and wastage, enhancing cost efficiency and profitability, provided supply chain reliability is maintained.

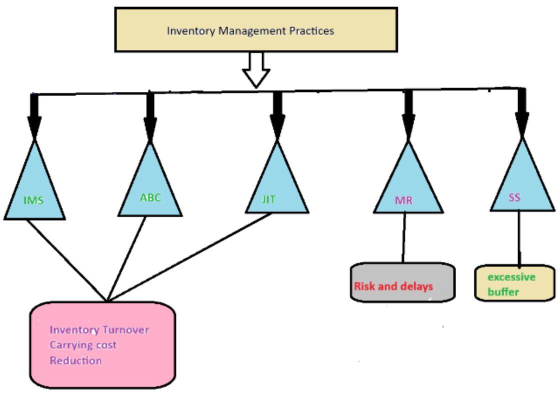

Table 1:

In the above table no 1

1. **Independent Variables (Inventory Practices)**

The diagram identifies **inventory management practices** as independent variables:

Inventory Management Software (IMS)
Improves accuracy, real-time tracking, and decision-making.

Manual Record-Keeping (MR)
Leads to errors, delays, and poor inventory visibility.

ABC Analysis
Focuses control on high-value items, improving cost efficiency.

Safety Stock (SS)
Acts as a buffer but becomes costly if maintained excessively.

Just-In-Time (JIT)
Reduces holding costs and improves operational efficiency.

2. Mediating Variables (Operational Outcomes)

These practices influence profitability **indirectly** through:

Inventory turnover

Carrying and ordering costs

Working capital efficiency

Resource optimization

3. Dependent Variable (Profitability)

Profitability is measured conceptually through:

Profit margin

Return on Assets (ROA)

Cost efficiency

Better inventory control → lower costs → higher profitability

Table no 2: Direction of Relationship

Practice	Impact on Profitability
Inventory Software	Positive (+)
Manual Records	Negative (–)
ABC Analysis	Positive (+)
Excess Safety Stock	Negative (–)
JIT	Positive (+)

Table 2 above shows the impact of the type of inventory practices adopted by enterprises on profitability. Inventory management software shows a positive impact because it improves accuracy, real-time tracking, and decision-making. Manual records show a negative impact because it leads to errors, delays, and poor inventory visibility. ABC Analysis shows a positive impact on profitability because it leads to improved cost efficiency. Safety stock can act as a buffer, but it will be expensive if we maintain it excessively. Just-in-Time has a positive impact on profitability, minimises inventory holding and wastage, enhancing cost efficiency and profitability, provided supply chain reliability is maintained.

Industry sector and inventory practices

According to the study, as per the type of industry, its nature, and its type, the enterprises use different types of inventory practices. The manufacturing sector uses JIT EOQ, ABC analysis, to Lower holding costs fewer production delays. The retail sector uses FIFO/FEFO, ABC, IMS, etc., inventory practices. The aim behind the retail sector to use these practices are balance stock with sales trends, reduce obsolescence. Healthcare sector industrial enterprises use FEFO/FIFO, RFID, JIT for safety reduce expiry loss.

Discussion

As per this study, all the practices of inventory control are beneficial for the enterprises except manual record and in some context safety stock if the enterprise maintain in excess quantity. As of a recent study in 2025, most medium to large enterprises are leading to digital computerised technological practices. Using a digital tool depends on the financial situation. Local small-sized enterprises cannot afford the digital tool. Many other factors can impact profitability, such as competition, market availability, customer satisfaction, sales, climate, season, customer requirements, resources, etc. Inventory management is one of the key areas of cost control that directly influences working capital management and overall financial performance.

Conclusion

The study concludes that inventory management practices play a crucial role in determining firm profitability.

The results indicate that:

- Firms predominantly rely on traditional and risk-buffering inventory practices.
- Modern inventory techniques such as JIT and advanced analytics remain underutilised.
- Digital inventory systems and ABC analysis positively influence operational efficiency and profitability.
- Manual records and excessive safety stock negatively affect cost efficiency and working capital utilisation.

Overall, the study confirms that profitability is not merely a function of inventory availability but of inventory efficiency. For MSMEs, transitioning from traditional inventory control methods to technology-driven and selective inventory practices is essential for improving financial performance.

References

1. *Koumanakos, D. P. (2008). The effect of inventory management on firm performance. International Journal of Productivity and Performance Management*

2. *Gill, A., Biger, N., & Mathur, N. (2010). The relationship between inventory management and profitability: Evidence from U.S. manufacturing firms. Journal of Business and Economics*

3. *Nyabwanga, R. N., Ojera, P., Lumumba, M., Odondo, A., & Otieno, S. (2012). Effect of inventory management practices on business performance. African Journal of Business Management*

4. *Karimi, E., & Kinyua, G. (2018). Relationship between inventory management practices and organisational performance. International Journal of Academic Research in Business and Social Sciences*

5. *Rajeev, P. (2015). Inventory management in small and medium enterprises. Journal of Supply Chain Management*