ITC INFOTECH

Business-friendly Solutions

CHOOSING THE BEST WAREHOUSE MANAGEMENT SYSTEM

A thought paper on "Factors that need to be considered while choosing the best WMS for your business"

Executive summary

Growing customer demands and changing market conditions call for all business processes to be streamlined for increasing transparency, servicing consumers better, improving operational efficiency and preparing for contingencies. Since the warehouse play a crucial part of most organizations, storing most of all what drives the business, managing it properly is of utmost importance. However, there are numerous processes and factors that need to be considered and weighed when deciding upon the best way to implementing an efficient and effective warehouse management solution.

This paper sheds lights on the various aspects of warehousing and shares ITC Infotech's understanding of integrated warehouse management. It discusses the importance of a well-designed WMS (warehouse management system) in the context of today's competitive and dynamic business environment. In addition to illustrating a framework for a typical warehouse management system, it aims to help organisations identify the factors that ensure successful implementation of a WMS and shares a logical approach to selecting the right WMS tool.

Outside-In perspective

Introduction

Manufacturing businesses are growing by leaps and bounds to meet increasing demands. The only way they can ensure sustainability and gain a competitive is by introducing innovative products and delivering them to the customer on time while also planning for eventualities, which makes it imperative for them to rethink old processes. The sheer volume of products to be stored and distributed at multiple locations at different points in time and through various channels demands that modern-day supply chains be backed by robust warehouse management to ensure that they have the agility and competitiveness to meet the needs of growing businesses.

Driven by fast-changing factors in their internal and external environments, warehouse operations manage multiple, and often conflicting business needs, including demand fluctuation, product shortage, product lifecycle, transport market volatility, etc. Thus, warehouse operations demand more proactive monitoring and self-corrective mechanisms for smooth functioning. Latest trends involve achieving warehouse excellence by integrating available resources effectively and establishing thoughtful process flows by leveraging relevant technology elements.

Integrated warehouse management can power up existing warehouse operations, streamline inventory and increase revenue if implemented properly. Thus, it is crucial to align new warehouse solutions with existing technologies, processes and policies in the company.

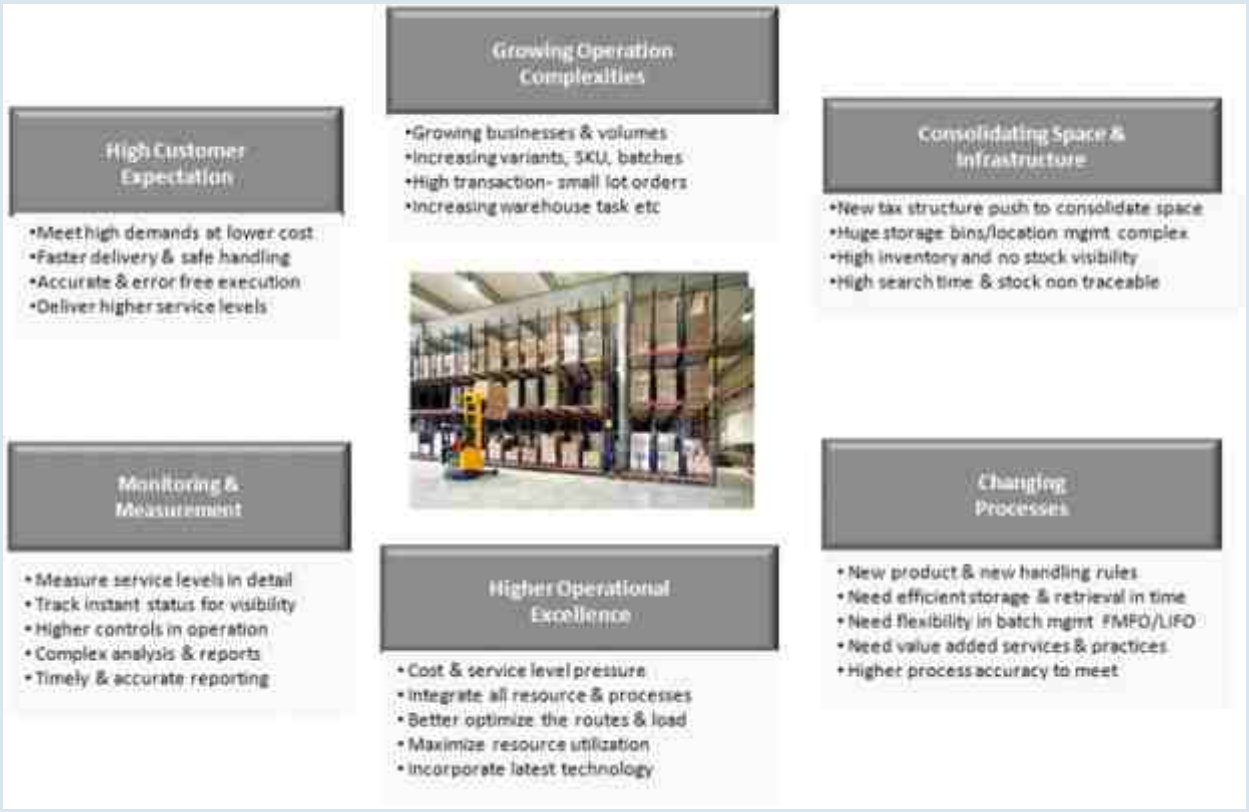
Challenges & Drivers

An indispensable part of the industrial unit, the warehouse is a repository of all essential materials and supplies that businesses use. It is important to capture all inventory movements, status changes and adjustments for to ensure accuracy in warehousing. This requires keeping records of all materials received, breakage adjustments, physical count adjustments, balance adjustments, sales, transfers, etc. Good warehousing offers real-time visibility and information to managers for reviewing, analyzing, and forecasting future business requirements. Insightful inputs from the warehouse can also help in reducing loss of sales caused due to unavailability of stock, ensuring smooth operations and gaining control over cost of goods sold (COGS) and inventory investments.

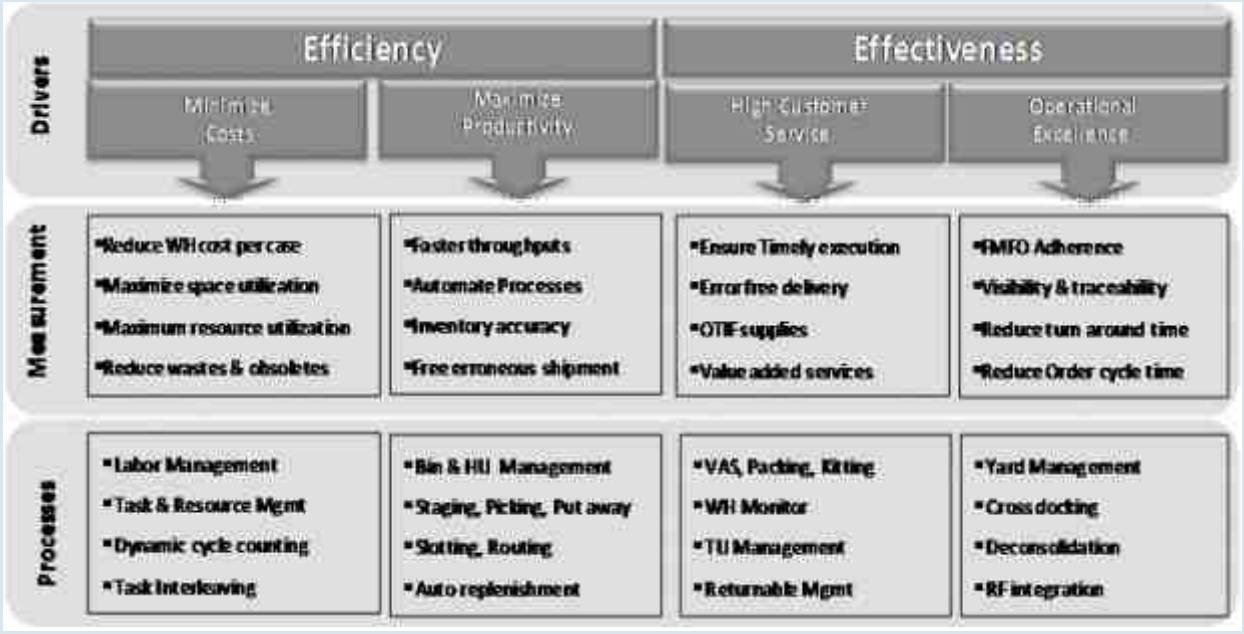
An organized warehouse lays the foundation for efficiency and quality. It could either be a different physical location, a logical division of inventory, or an independent financial entity in terms of category, geography, ownership, location, or inventory status. Locations can further be classified into aisles, racks, shelves, bins or other specifically defines areas. Warehouses must be customized to suit business needs for increasing operational efficiency. Organized warehousing leads to error reduction, less clutter, correct identification of products, reduced wastage/breakage, and optimized workflows.

However, the road to devising and implementing an effective warehouse management system is fraught with challenges. Typically, most organizations face the following problems while on their journey to growth and maturity:

- High customer expectations
- Growing operations
- Consolidating space and infrastructure
- Changing Processes
- High Operational Excellence
- Monitoring and Measurement



Such challenges can be can be overcome by enabling business processes with right set of technologies and tools. A Warehouse Management System (WMS) integrated with auto identification technology and enterprise ERP ensures effective and efficient warehouse operations. There are many industry and geography specific WMS solutions available in the market. Such solutions have in-built optimisers and world-class analytical engines, and are known their capability to integrate all warehouse processes seamlessly. They can also be integrated with other advanced technologies to deliver greater flexibility and adaptability. Nevertheless, the success of WMS solutions depends on a few of factors that help increase efficiency and effectiveness by measuring the value created by each factor and streamlining processes.



Essentials of Warehouse Management

To make the most of any warehouse management system, it is important to identify the factors that have the greatest impact on both its functioning and the business.

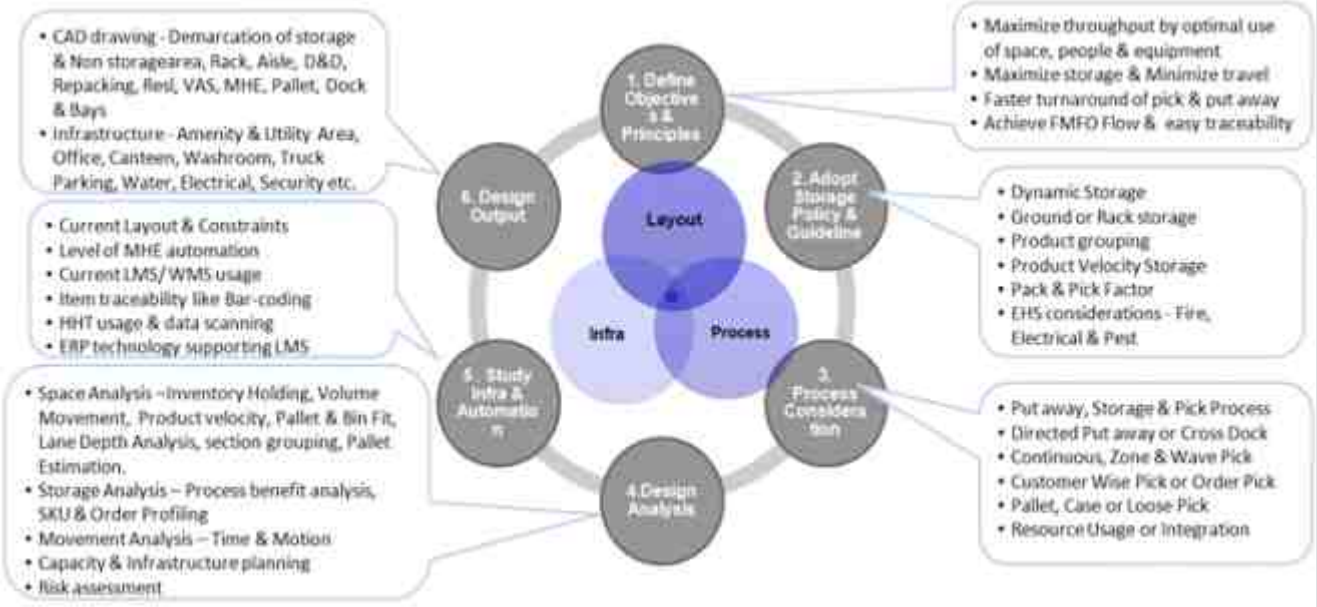
- Availability of real-time inventory updates–Sales and inventory management resources can work more efficiently if they can keep a tab on inventory updates while picking, packing and shipping through instant notifications.
- Complete integration of the accounting system with back-end operations – This helps in eliminating duplicate entries.
- Integration with bar-coding and radio frequency technologies – This helps workers track the items being picked, packed and shifted quickly and more efficiently and reduces the chances of errors by eliminating the need for manual ticking.
- Automation of inventory receipts and put-away – The WMS must be able to track inventory by location (like bin, shelf) along with the count in each location.
- Support for different picking methods – Different companies have different picking methods. Some organisations have different methods even within the same warehouse depending upon the value, size, etc. of the products to be picked. The warehouse management system should be able to support all such methods.
- Advanced reporting system– A WMS must support designing of complex as well as ad-hoc reports apart from the standard ones.

- Advanced BIN systems– The system must allow for creation of bins based on certain criteria/need/use like pick-able, non-dedicated, dedicated, storage, virtual, etc.
- Automated inventory control– The system must be capable of tracking and dispensing inventory based on various methods like LIFO/FIFO and expiry date.
- Scalability– the WMS must be capable of meeting business needs even after the organisation scales up in future.
- Availability of EDI integration, compliance and ASN labelling – The system must comply with standards and have multiple labeling methodologies available.

The Typical Solution Framework

Most companies follow a typical framework to ensure smooth operations. They design the system so that it not only considers the various factors that have a bearing on the functioning of the business model, but also takes into account the way each element interacts with and affects the others. There are three aspects to it - layout, processes, and infrastructure – all of them interrelated to and interdependent on each other. The process involves:

- Defining objectives and principles
- Adopting storage policies and laying guidelines
- Understanding and examining various processes
- Analyzing the design
- Studying the infrastructure and automation possibilities
- Designing the final framework based on inputs gathered

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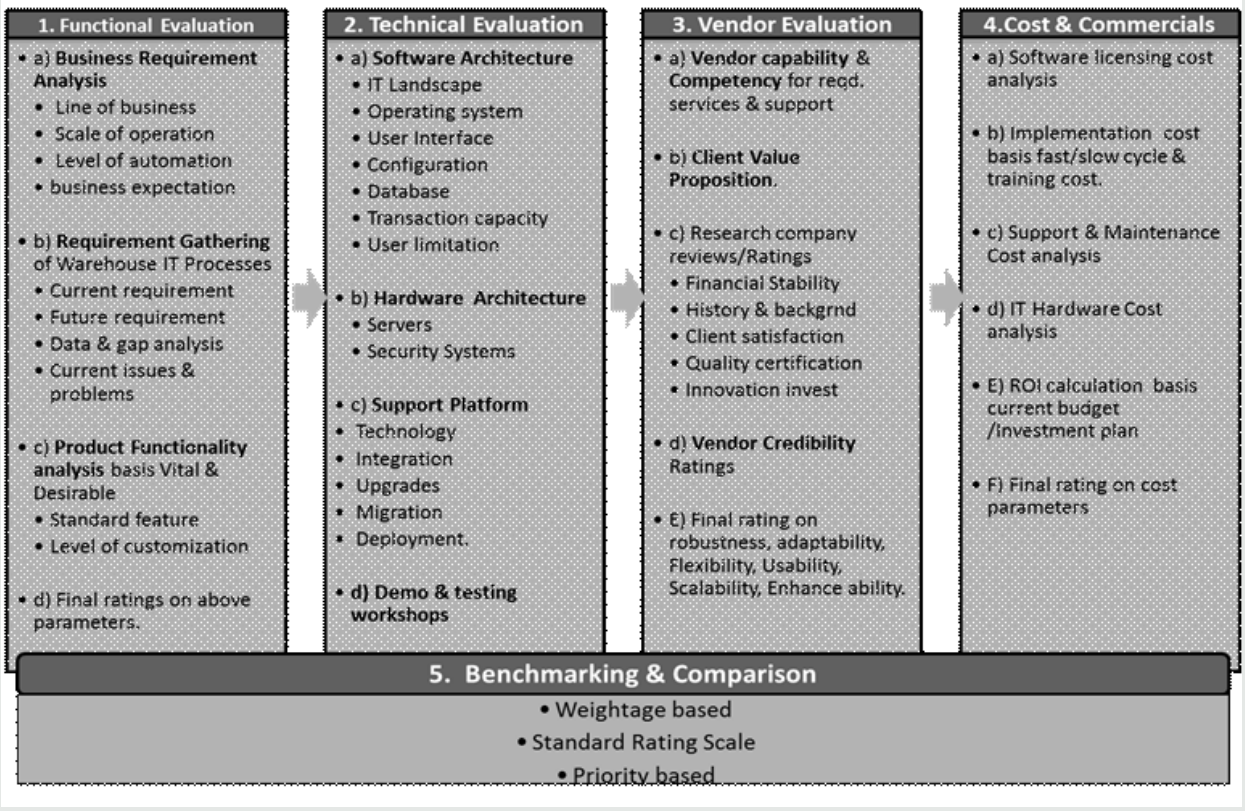
Selecting the Best Tool

Different WMS technology vendors provide different solution options with varying complexity and exception handling ability. Thus, it is important to identify the right set of functional and technical requirements before selecting a WMS tool. The tool must be selected based on the size of the organisation, nature of business and type of offerings. The tool also needs to be evaluated for functionality, flexibility, technology and value. Choosing the right tool could be difficult; however, knowing the features required can help narrow down the options. The following illustration depicts a well-planned approach for evaluating a warehouse management system.



Conclusion

An integrated WMS system benefits organisations through:

- Easy storage & retrieval of stock
- Visibility in operation
- Inventory traceability
- Reduced operation time
- Reduced handling & storage cost
- Faster turnaround
- Optimal use of resources like space, labour & MHEs
- Improved customer satisfaction and service level

Factors such as expansion to new geographies/regions, changes in tax structure (implementation of GST), expansion of organized retail footprint etc., make it crucial for organizations to decide on aggregation of warehouse space, set up more warehouses, and invest in technology and infrastructure. Thus, early adoption of Warehouse Excellence & Automation ensures better support for business growth.

About the Authors

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Our expertise spans Consumer Goods, Retail, Process Industry, Logistics & Transportation, across key business functions such as product development, production, supply chain management, sales and marketing management, field force management, and customer relationship management.

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ITC Infotech is focused on servicing the BFSI (Banking, Financial Services & Insurance), CPG & R (Consumer Packaged Goods & Retail), Life Sciences, Manufacturing & Engineering Services, THT (Travel, Hospitality and Transportation) and Media & Entertainment industries.

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