

White Paper



Warehouse Audit

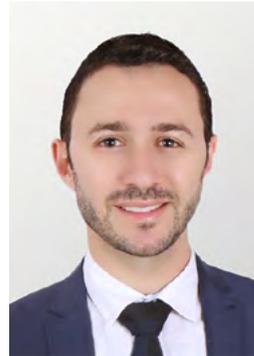
How to Get the Most out of your Warehouse

White Paper by
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About

COVID-19 has raised the need in the entire supply chain, and particularly in warehouses, to be proactive and well prepared for unexpected situations with peaks and valleys to be able to adapt, grab opportunities, and lead the market.

Interviewing, observing, and gathering data helps you in identifying the gaps and in setting the right action plan to optimize your layout, improve process, fully utilize your employees, and decrease the operational costs.



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Miebach Consulting has the answers on how you can start making your warehouse more future-ready.

Introduction



Are you able to deliver orders on time and in full? Are you facing bottlenecks in the process (especially picking and packing) negatively impacting your performance and your staff's motivation? Are you managing your inventory timely and accurately? Are you achieving real-time transparency on the performance and cost? Are you well-prepared for Omnichannel requirements?



A warehouse audit helps you in answering these questions and gaining increased transparency on what is happening in your facility with regard to people, process, performance, and cost. The way to achieve this is by analyzing the existing setup and detecting bottlenecks and potential risks in your operation.

Furthermore, an audit can give you clear guidance on what to tackle next, prioritizing those with minimum investment, to achieve quick-wins and motivate your team, as well as long term solutions.

The achieved successes from short term solutions can drive the decision to implement long term solutions for the strategic requirements of the business.



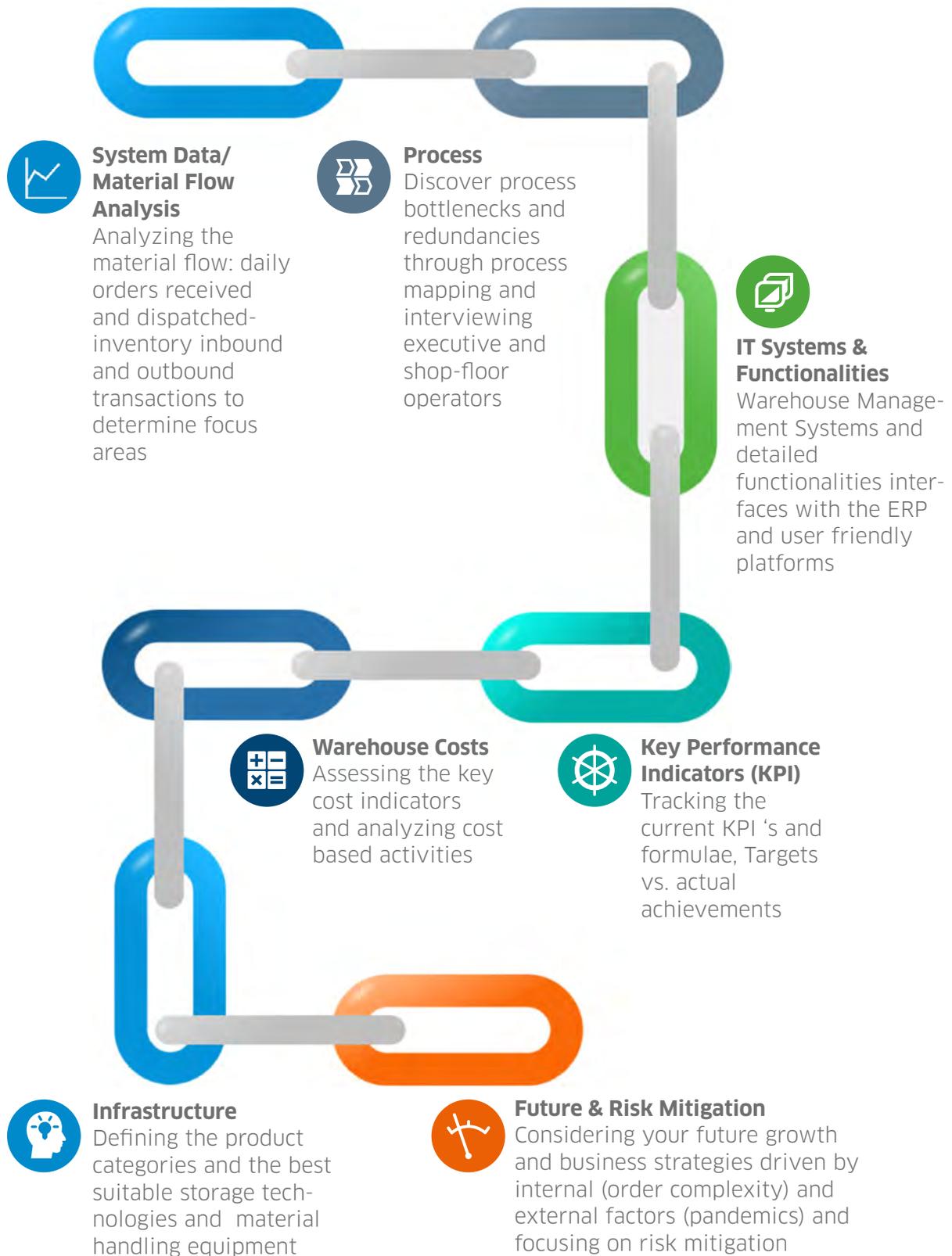
This white paper summarizes what to do, what potential problems to detect, and what is needed in order to overcome the current challenges of your warehouse and accordingly move it to the next level.



After COVID-19 warehouse audit is becoming an essential task to maintain service sustainability and reduce operational costs.

Where to look first?

Based on your unique situation and needs, it is necessary to determine and prioritize critical factors for the audit.



Warehouse Performance Audit in GCC

In the past, stakeholders have viewed Supply Chain as an expense rather than revenue generator. Over the last few years this perception is starting to change and the supply chain is in fact seen more and more as the backbone of any company.

If the supply chain is the backbone, then the warehouses are the transmitters bringing the supply chain to life.

A warehouse is required to be flexible enough to accommodate variations in orders, able to manage different order patterns, and well-equipped to deal

with peak requirements successfully on short-notice at a reasonable cost base. These are the typical operational goals for a warehouse.

What does it take to continuously improve?

In GCC region the warehouses vary from complete manual operations to fully automated, and warehouse audit initiatives applies to all types of facilities with different complexities, weaknesses, and threats, but leading to different solutions and benefits on case by case basis.

Weaknesses and Threats



Universal Methodology and Customized Solutioning – For your Benefit

Having done warehouse audits on numerous different types of warehouses, Miebach has proved that the methodology applies anytime and anywhere.

Long Term Approach

The next step was moving gradually to a long-term solution by analyzing the material flow and putting in place robust SOP's. The analysis has uncovered the need to introduce a racking system, and in order to propel the warehouse to next level, automating the processes and implementation of WMS and other IT technologies are a must. Clear KPI measures for purpose of tracking process and employee's performances were put in place in order to monitor and achieve the targets

When it is time to expand further, introducing automation and more complex technologies and MHE would make sense to maintain a competitive advantage. Cost and ROI are always a major factor in shaping the needed solution for your business.

Quick Wins -> Action & Requirements

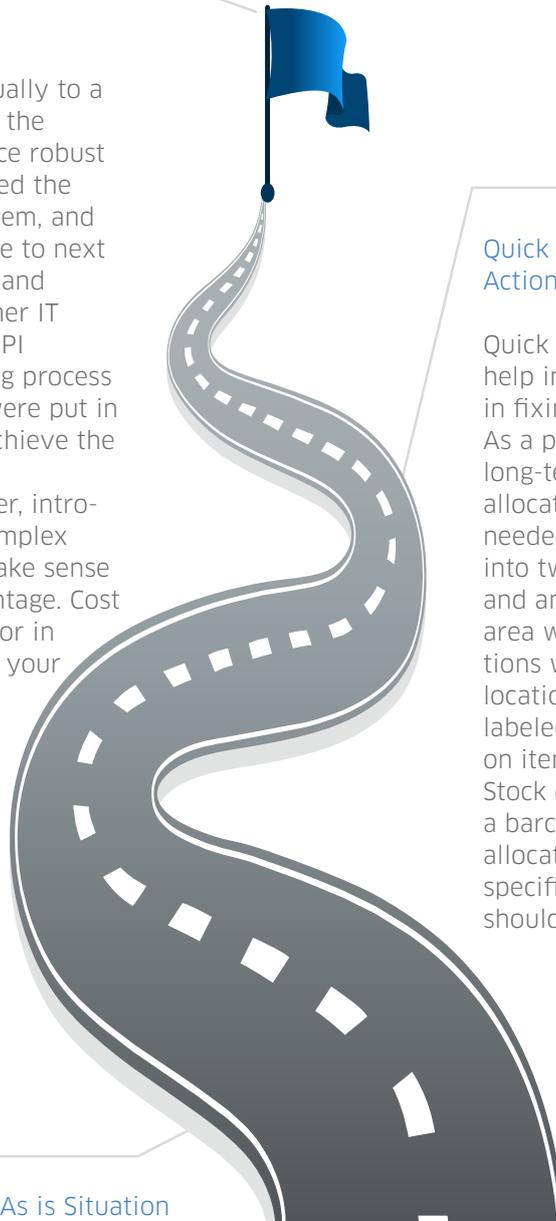
Quick action can be taken which will help in reducing the complexity and in fixing the issues.

As a prerequisite and a base to any long-term solution, a clear view and allocation of the stock availability is needed. The warehouse was divided into two areas: an area for receiving and an area for dispatching. Each area was divided further into locations with a label defining each location, some even as simple as labeled pallets. Stock was segregated on item level by category/vendor. Stock count were implemented using a barcode scanner. Stock would be allocated and put-away into the specified locations, and ERP system should be updated accordingly.

Start your journey here – As is Situation

An audit conducted in a fashion retailer's warehouse in the region which was manually operated by primitive processes revealed multiple areas of concern:

- having goods being stored on the ground
- transactions being manually executed in a random manner
- receiving items from different industries/ categories and placing them in any available space without any segregation



Key Focus Areas

A generic audit typically covers every focus area of the warehouse, i.e. Material Handling Processes, Resources, Performances, Storage and Material Handling Infrastructure, IT Systems, Costs and KPIs apart from Maintenance Quality and Operational Safety).

There can be several challenges and inefficiencies hidden in one or more of these focus areas which need to be carefully analyzed through an integrated

approach such as a cause and effect diagram. This will allow you to determine the potential improvement opportunities with an overall target of cost reduction, service level improvement, or both.

Below are some of the approaches to identify key challenges and define quick wins as well as long term solutions to challenges faced in the case discussed, and are applicable to various types of warehouses in GCC region.

Material Handling Processes

The widely adopted approach of identifying key issues in Material Handling Processes are the Activity Based Cost Analysis or Process Performance Evaluation approach amongst the basic approaches. In complex operational environment, operations simulation has proven to be the best approach to identifying bottlenecks in material flows.

Storage & Handling Techniques

A Storage techniques assessment is carried out by analyzing utilization and its influence on the material handling processes. A storage solution should be optimally utilized at a bin level with minimum repeated handling of product during picking or put away.

IT Systems

IT Systems are the focus area which supports to increase the operational speed and efficiency, minimize execution errors, reduce headcounts, and increase the visibility and control of activities in the warehouse.

Warehouses Costs & Service Levels

A warehouse has the target of delivering the promised service level at the most optimal cost. Evaluating the current warehouse costs is essential to define the current baseline cost performance or service level for the warehouse.

Key Performance Indicators

A warehouse can be defined with several Performance Indicators (PIs) e.g. unloading performance, achieved service levels, etc. However, Key Performance Indicators are mainly defined to monitor and assess the focused performance parameters clearly defined for a strategic benefit.

Key Focus Areas

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Typical quick wins for the processes focus area could be:

- Eliminating redundant steps in a process to improve the process approach (Single order picking to batch picking, etc.).
- Streamlining resource distribution to reduce turnaround time, cross functionality of operations team, etc.
- Defining cut off times and tracking processing lead times to manage performance of the warehouse.
- Establishing a simple, short and realistic process.

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Storage and Handling Techniques

Handling techniques are analyzed by their functionality for carrying out the defined processes as well as limitations to perform improved or alternative processes. The handling technique is closely analyzed with the Material Handling Processes to determine the best equipment for the best processes in the warehouse.

Typical quick wins for the storage and handling technique focus area could be:

- Identification of the storage requirements that are suitable with the product nature, building constraints, and has a reasonable cost with consideration to future growth.
- Layout re-organization by defining required traffic areas, travel routes, restricted areas and increasing storage capacities of the existing storage system
- Re-zoning of the products and their storage areas based on updated product classification as per movement patterns, ABC / FMS classification, etc.

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IT Systems (Warehouse Management, Task Management, Yard Management, RF Terminals, etc.)

Some of the methods of assessing the effectiveness of the existing IT system supporting warehouse operations are identifying the depth of operations performed with the support of the system (WMS) as well as the maturity of the configuration and utilization of the system capabilities of the IT solutions.

Typical quick wins for enhancing the IT system support to warehouse operations could be:

- Identification and implementation of additional or improved configuration parameters for enhancing operational performance and efficiencies like adding pick route sequence to bins
- Zoning of the storage areas based on material flow parameters such as ABC classification, FMS classification, Product categories by picking requirements, etc.
- Establishing proper control mechanism (e.g. Fixed bin strategy, quantity limits, storage type definition for tracking, etc.) in the WMS system.
- Regular training for minimizing errors and enhancing operational capabilities (initiation, control, monitoring, etc.) while using the implemented IT solutions.

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Key Focus Areas

Warehouse Costs and Service Levels

This is a Key Performance Indicator to establish the benefit of potential improvements as well as an internal benchmark to assess other warehouses in the supply chain of the business. Upon assessing the key cost indicators, it is crucial to develop a cost framework, such as an activity based costing framework or process based costing framework, to be able to prioritize improvement areas for solution development. While identifying the potential improvements it is necessary to contribute directly or indirectly to cost improvements and/or service level improvements.

Key Performance Indicators suggesting the current baseline and future estimates of costs and service level indicators are critical to arrive at business case justification for quick wins, as well as long term improvement solutions.

Long Term Approach

The widely accepted approach to arrive at long term solutions is to evaluate the effects for the entire warehouse holistically reconsidering hard and soft constraints for each focus area. Further, solutions need to be defined after careful evaluation of their influence across the focus areas of Processes – IT – Material Handling Equipment – Storage Systems as well as its influence on the overall impact on Costs and Service Levels of the Warehouse.

Typical solutions could be:

- Upgrading the staging area with racking to improve unloading productivity and capacity
- Implementation of WMS and further, Task Management System to allocate optimal tasks to operational resources in the warehouse
- Upgrading picking strategies from single order pick to multi order pick or wave picking.
- Automating processes to simplify and reduce errors in repeated activities such as labeling, sorting, order consolidation, etc.

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Key Performance Indicators

The audit process, leading to quick wins with potential improvement opportunities, is required to define the KPIs to be targeted while implementing the future course of action for targeted improvements in the warehouse.

Such KPIs should support in measuring, tracking and monitoring the improvements of the implemented solution. The warehouse team, with continuous tracking, monitoring and reinforcing steps, pursue to meet the target KPIs for the warehouse

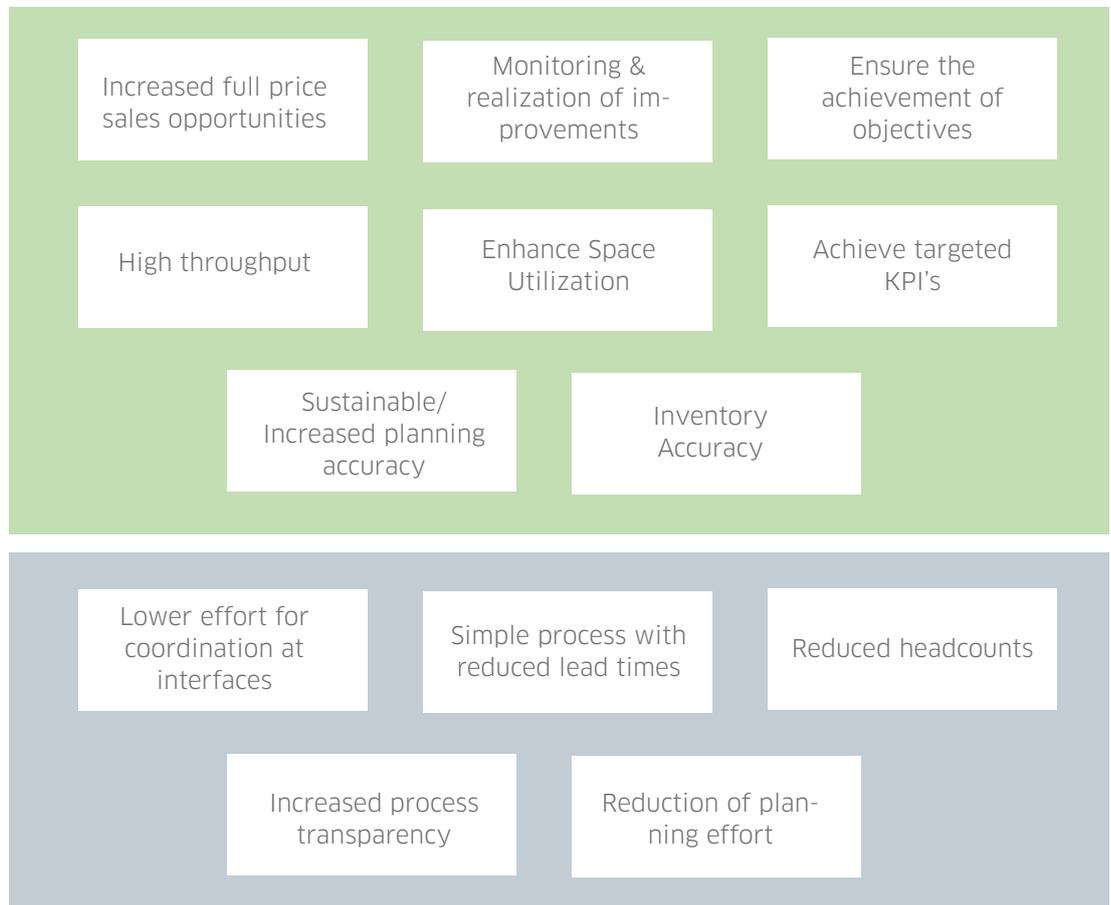
Examples of target KPIs resulting from Warehouse Audits are:

- Warehouse Returns due to Wrong Picking (number of order lines returned from customer due to non-acceptance of delivery for reasons controllable at the warehouse)
- The overall efficiency and effectiveness of critical warehouse processes and costs (delivery reliability, order fill rate, inventory accuracy, location accuracy, proof of delivery, etc.)
- The specific focus areas and performance targets (short term / long term) the warehouse is pursuing
- Review the frequency and the method of calculating the KPIs and defining the right formulas and the set target for each

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Strengths & Opportunities

Actions you take in the main focus areas will reflect on your warehouse performance and return potential benefits



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In each developed phase Miebach uses its experiences and considers industry best practices, trends in supply chain organization, organizational benchmarking, business requirements, potential cost savings, and recently COVID-19 consequences (e.g.: implications of service distancing on picking process) and how to be malleable and equipped to operate in unexpected situations.
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Re-engineering objectives, the methodology, and actions you are taking will be the roadmap towards robust warehouse performance. Keep in mind that regular warehouse audits are a must to be prepared to the fast changes in supply chain and logistics.

Conclusion



Our goal is turning problems into opportunities

It is important to have a holistic look at the warehouses and the operations within them in order to enable the warehouse to play the vital roles to fulfill the customer's promise, serve as a value creator for the business, and supporting the entire supply chain to serve as a business enabler rather than be seen as a cost factor.

Given the new dynamics incurred by Covid-19 on the supply chain logistics, the performance of a warehouse and accelerating the processes within is creating even greater importance for fulfilling the customer promise in order to maintain competitive advantage and gain market share.

Keep in mind your company's future requirements, your sales team strategy, and future plan, as they are reflecting in your sales orders pattern, and thus should be considered as a major input in deriving the future processes, selecting the right IT solutions, and listing the needed technologies

Optimizing the layout & equipping the warehouse with the suitable technology and MHE in addition to implementing the best-practice processes will reduce complexity and have the employees work efficiently & smoothly. A Warehouse audit is the lens that will show you exactly where you stand and what you should do to reach and fulfill your company's strategy.

Miebach Consulting: The Supply Chain Engineers

Miebach Consulting offers international supply chain consulting and engineering services in production and logistics in 24 offices worldwide. Our clients are medium-sized companies as well as corporations that want to improve and expand their competitive position with innovative logistics solutions.

The Miebach Group, founded in Frankfurt in 1973, today has office locations in Europe, Asia as well as North and South America. With over 380 employees, we are one of the leading international consulting companies for logistics and supply chain management. As a result, our clients get what we stand for: Supply Chain Excellence.

2020

- 24 Offices worldwide
- 380 Employees

Please contact us if you would like to discuss your current challenges with us.

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