



Operational Efficiencies Realized through Business Intelligence

How need-based reporting can breathe life into a stagnant WMS.

“Band-aids don’t fix bullet holes.”

That saying has been around forever, with the underlying sentiment suggesting that you cannot fix a large problem with an undersized solution. Oftentimes supply chain organizations assume that their existing warehouse management system (WMS) cannot be leveraged to improve operations without expensive upgrades or change-intensive code promotions. The good news is that many times this is an incorrect assumption. More often than not, you don’t need to wheel your WMS into an operating room... you just need a few band-aids!

To determine if your operation could benefit from an advanced reporting solution, reflect on these questions:

- Do I rely on base GUI screens for business insights into my WMS?
- Do I have to export data from my WMS into Excel and run macros and pivot tables in order to get the information I need?
- Are my supervisors spending unnecessary time after every shift calculating UPH metrics or other necessary KPIs?
- Can I quickly provide my team with easy-to-read visuals that quickly show how effectively each team member is performing?
- Are there parts of your operation that fall into the “black box” category, leaving you guessing why the WMS is behaving in a given manner?

If you answered any of the above questions with a less-than-favorable response, it may be time to step up your business intelligence (BI) game!

Getting Started

The first step in the path to an elevated level of analytics is simple: you must have a problem that needs to be solved. The size of the problem doesn't matter and that's the beauty of BI: even if the final solution to the issue lives outside the scope of reporting and analytics, using these tools can provide invaluable insights that aid in arriving at an effective solution. Oftentimes, however, the "solve" is nothing more than having visibility to metrics that had previously not been visible. As an example, let's say that your issue revolves around employee performance (or the lack thereof). You're certain you know the problem performers but don't have the data to prove it. Well, if you layer some intuitive reporting on top of the underlying engineering standards that are likely already being recorded in your WMS, you end up with an easily-digestible visual to share with your team!

Take a look at the additional metrics that can be pulled directly from your existing WMS data layer. ➡

The Key Ingredient

We've established that BI can help you solve problems by extracting information from your system. Now let's discuss the most important piece of the entire discussion: the analyst doing the work.

There is often a distinct line between

- a) the IT-type folks that possess the technical skills to pull the data from the WMS and
- b) the operations team that is making the request.

A truly great WMS/BI analyst lives on that line and has the business acumen to...

- Work with the business to gather requirements
- Ask operationally-relevant questions that help the team better visualize the end result/solution

... and possesses the technical skills to:

- Transition the business request into SQL code that accurately extracts the requested data from the WMS
- Create a final deliverable that is concise and easy to comprehend while ensuring that no necessary details are omitted
- Identify the correct method of delivery

The truth is, most organizations have a WMS system filled with operationally-relevant data. Some may even have the necessary BI tools to visualize that data, but few have the correct technical resources to appropriately leverage both.

Data for days...
Key Performance Indicator (KPI) Analysis
Trend Analysis
Financial Performance Tracking
On-time and In-Full Performance
Function-specific Cycle Times
Dock-to-Stock
Capacity
Labor Management
Fill Rate
Inventory on Hand
Cycle Counts

Options for delivery

Here's the thing: you've got options! The business analytics software space has exploded over the past two decades, resulting in several capable vendors that specialize in helping turn your data into useable information. Some of the industry leaders, Tableau, are noted to the right.



While leveraging tools like these can absolutely add value to an organization, they may not always be the most effective way of consuming value-added information.



Consider an operations supervisor that spends the majority of their time on the floor and logged into the WMS. Most of the time they don't need elaborate visuals or interactive tables; they simply need quick access to KPIs that they cannot find in their standard WMS screens. This requirement varies greatly from an SVP of Supply Chain that routinely needs access to financial information via dynamic trend charts.

Having flexibility in your delivery solutions is key to a complete BI solution. That said, here are just a few of the options available:

- *WMS-hosted reporting portal*
 - This is typically an out-of-the-box WMS screen that allows the WMS/BI analyst to directly insert an SQL statement and view the customized output
- *Server-based script execution*
 - Usually leveraged to drop a file on a shared file server, the analyst prepares a batch file that:
 - Connects to the DB server
 - Executes the SQL script
 - Exports the results to a XLSX/CSV file
 - Moves the file to a location accessible by the end user
- *Full-blown data visualization solution*
 - Software hosted internally or online by the vendor of choice
 - Establishes a connection from the software to the WMS database
 - Allows the analyst to dynamically aggregate and visualize raw data
 - Can be viewed via web browser or can be scheduled for email delivery

Summary

User-friendly data leads to better business results through improved operational efficiency. Business intelligence facilitates these results by helping transform that user-friendly data into action. Potential benefits derived from stepping up your BI game include:

1. Faster access, generation, and analysis of reports
2. Improved visibility to operational processes and bottlenecks
3. Increased employee efficiency with less time and effort spent looking for needed data
4. Increased employee culture because they feel they have the tools and resources they need to do their job
5. Reporting that provides strategic insights that lead to more effective business decisions today and forecasts about tomorrow

Let us help! Alpine can provide a roadmap for BI success in your organization and even help you execute the plan. By intelligently leveraging your existing infrastructure and only introducing new technologies if necessary, we can keep implementation costs low while still delivering outstanding results.

About Alpine Supply Chain Solutions

Alpine Supply Chain Solutions, based in Chicago, IL is a supply chain consulting company driven to ensure their clients get the most value from their investments. Their approach to every project starts with the data and ends with a cost justifiable solution. With deep roots in industrial engineering, Alpine's approach is unique. Alpine Supply Chain Solutions works with customers to optimize their facility operations, including location schemes. Recent projects have aided customers in facility moves / slotting / label database as well as complete facility layout rebuilding to accommodate growth within an ongoing operation/ slotting/ move management.

Find out how Alpine can help with your next supply chain project!

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