WMS 1
WMS 25
WMS 50
WMS 148
WMS 99
WMS 107

SELECTION OF WAREHOUSE MANAGEMENT SYSTEM

The board has accepted your proposal to implement a WMS in the warehouses. "Congratulating! Being the warehouse chief, you have been assigned to head the selection team," your boss said to you after a board of directors meeting.

Despite the fact that you have been pushing for the installation of a WMS, you know your sleepless nights have just begun. One question after another starts floating through your mind.

There are 200 plus WMS available worldwide. Which is the right one? Where does one start? How much training is required? How much is it going to cost? What possible hidden costs are there...?

For a starter, get your operational requirement written. Engage an independent consultant if expertise is lacking within the organisation.

Typically, following are some areas that needs to be considered in the selection:

- The WMS package
  - System design
  - Operational design
  - Support capabilities
  - Related experience
- Cost
  - Quotation completeness
- Implementation scheduling
- Training and documentation
- Financial strength
- Business partnership

The WMS Package

This is what you wanted. So be prepared to carry out an exhaustive study into it. Site visit would give you an idea of how a specific WMS manages different warehouse operations. But don't accept everything you are told as the gospel truth. **Only the rare vendor will not "orchestrate" the site visits**. You see what the vendor wants you to see.

However, site visit is not a waste of time. In fact, made it one of the prerequisites. Get a list of installed sites from the vendor and choose those that you want to visit. No doubt, the vendor needs to get the

approval from the clients. If there is more rejects than agreements, unless the rejects are your business competitors, it is a warning sign.

During the site visits, keep your eyes and ears open and look for things that the vendor is not showing you. Try talking to the operators, clerks, and/or supervisor would give you a clearer picture.

System design

This includes hardware platform, system redundancy, operator functions, staffing requirements, software integrity, training - users and MIS, support and warranty, interface and the overall "feel" of the software.

Also to be considered is the response time especially when RF devices are involved - if you need to wait for the next screen, it is too slow. Typically, it should be sub-second. Otherwise your operator will be frustrated.

Operational design

This is where your operational specification comes in. Compare your operational requirement with what the vendor offers in his package. Typically, a vendor would propose a boardroom pilot that is usually chargeable.

Be as exhaustive as possible. Whatever shortcut or mistake would be something you have to live with for the rest of the "system-life". **It can be very costly!**

Related experience

Look for vendors that have installed system into similar industry as yours or have staff with the experience are in better position to advise. Remember, "A successful Warehouse Management System is as good as the vendor's project leader".

It is unlikely that you would find a WMS package that meet 100% of your needs without customisation. A project leader that has relevant experience should be able to advise on whether to customise the software or modify to your operational procedures.

Be wary of vendor that proposes quantum modification. Either you get the wrong project leader or the WMS is not designed to meet your industry requirement. (See supplement.)

Furthermore, whenever a modification is carried out, there is always a risk of new "bug" being "introduced".

Support capabilities

With modern communication technology, it does not really matter whether your vendor based his support team in Timbuktu, Singapore or New York. What you don't need, when the system crashed, is to be told that "I look into it in the morning" (as it is night where he is).

Even when the local support is available, there are times that head office assistance is required. If the vendor tells you that the source code resides at the local office, question on the upgrading path. Are you buying a customised package?

TOTAL Cost

Always look at the ***TOTAL COST***. This should include hardware, software, RF system, and site/users licensing. You would also need assistance in installing the software and training your staff - this would cost money too. Don't forget about **maintenance charge**, usually on an annual basis, and with some vendors, upgrading charges too.

In the area of software, it is not usual for some vendors to tell you that their system is modular and you need only pay for those you need. There is no doubt that it would cost less if you don't need all the modules that are available. The question is do you know exactly what you require or that there is nagging doubt that you may miss something.

Another consideration is whether there are some requirements that would arise in the near future.

Check what that cost would be - remembering additional training and probably some consultancy time are required.

Alternatively, look for vendor that offers a comprehensive package. You don't have to worry about such a problem.

For area of site/users licensing, some vendors offer "country" licensing. If your organisation operates multiple warehouses, a "country" licensing arrangement would probably be more cost effective.

Quotation Completeness

Ensure that the vendor touches on all provisions in your bid specification. This could be the source for conflict later.

Enquire about the maintenance charge and what does it covers. And upgrades, too.

Some vendors include upgrade in their maintenance program and cover it in the maintenance contract, with some conditions. Others charge them separately. There are some that distinguish between "update" and "upgrade" - ask about the differences.

If your system is heavily customised, check on the support arrangement and the costs involved. Again, don't forget about upgrade.

If the vendor's implementation team is from overseas, do not forget to ask about travel and accommodation expenses - who is paying? This can become an issue if not clarified.

Implementation scheduling

Unless you have opt for a customised system, the vendor could possibly install their WMS in your computer, if one is available, the day you sign the contract. But be realistic. There is a lot of data preparation on the user side. And training too.

A typical WMS implementation would take six months or more. A more computer literate and disciplined workforce may achieve it in a shorter time frame.

Forcing an unrealistic schedule would result in more problems.

Training and Documentation

These cannot be over emphasised. "Training, training and more training" is always a good approach to implementing something new. There is no such adage as "the system is user friendly, little training is required" as far as WMS is concerned. If so, the system is pretty basic. Or just be prepared that you will not reap the full potential of the system.

Anyway, there is no failed implementation of any system as a result of over-training.

Financial Strength

A WMS vendor is a lifetime partner, at least the lifetime of the system. You would not want your WMS, or any other software, supplier to fold while you are getting acquainted with it. Access to the source code in the unlikely event of the supplier folding is NO comfort.

The resources required for maintaining the source code is astronomical.

Business Partnership

Look also at what other business your potential vendor is involved in. You don't want to buy your system from a possible competitor. A software supplier is more than a just supplier. He is a business partner that you need to give access to your operation's intimate details. (See Business Partner)

Conclusion

WMS selection process is a team effort. But remember that although a WMS is also a piece of software, the demand on a WMS is very different from that on an ERP (enterprise system). The warehouse manager must be prepared to take the lead in the selection.

A popular WMS is not necessary a suitable one for your operational requirement. By the same token, a WMS that relatively unknown needs not be a bad one. The important point is how long it takes the vendor to resolve a problem, especially the critical one.

Last but not least, is how comfortable are you having them as your business partner.

Daniel Ah-Lek LEE
BBus (IT) Mbus (Log Mgt) MCIT
Senior Consultant

Published: Logistics South East Asia
June 1998