

Diversity and Demand Drive

Material Handling Equipment Costs

By Jon Paul

Vice President of Sales and Marketing
Morrison Company

This topic reminds me of Economics class, because at the end of the day it's all about supply and demand. The marketplace is responding to a pent-up demand, by providing a greater supply of services.

Think back just ten years ago and ask yourself if records storage was going to be as critical to MOST businesses, I bet you would answer no. The demand for records archiving worldwide has been largely fueled by our litigious society and government regulation. Top thinkers in the legal profession indicate that Sarbanes Oxley and HIPPA alone will keep the demand for records archiving explosive!

It is clear that, ten years later, varied types of media have created a challenge for records archiving companies. Whether expanding an existing operation, retrofitting records storage in a complimentary operation, or building a new facility there are two questions that need to be addressed:

- What is my customer mix; and
- What facility restrictions are there?

Determining the answer to these questions will provide the rationale for what type of material handling solution should be deployed for your records storage business. Putting it another way, answering these two questions will ultimately enable you to **determine storage costs**.

Any business understands maximizing profit occurs when costs can be managed. Can you answer what is your cost to store (and retrieve) each box or electronic media?

Customer Mix

Answering the customer mix question is critical because you can then determine what type of media will need to be archived. Businesses today have many types of media; hard copy files, electronic tapes, and cartridges, medical records, etc. each presenting a chal-

lenge for designing the best material handling solution. Designing a dense storage and retrieval solution to maximize space should be based on both the type and volume of each mix of media to be archived in your facilities.

Knowing how often this media will need to be retrieved and re-filed will also drive your material handling storage and equipment solution. Banks and insurance companies have different needs to accessing archived data versus hospital's storage of medical records. The design of your material handling solution can be supported with several options, for example, a catwalk with manual picking versus a narrow aisle high bay racking system with a man-up order picker.

Additionally, if you are entering the records storage business or have a facility with 10 feet or lower height restrictions, storage shelving can be the most widely accepted "racking" choice. Using this choice a rolling ladder is sufficient for your staff to store and retrieve the client's archived products.

For "racking systems" over 20 feet, usually fire control regulations dictate that a sprinkler system is required for every 10ft of height. An experienced material handling integrator can research and confirm your locale's fire protection and seismic regulations that will need to be considered when developing your unique solution.

Once determined, using a "depth to height ratio" and desired storage density, your material handling integrator can determine the optimal depth of shelf based on the height of your facility coupled with the storage formats needed (open file, medical records, standard storage boxes or banker's boxes).

As your business grows, or if other facility options present themselves, then higher racking methods can be considered. Braced shelving or catwalk solutions are good options since they allow for both more depth and height, however these options are not exclusive. As you analyze your growth, customer mix and potential changes to throughput requirements high-bay narrow-aisle racking options may be your best option.

A recent client case study illustrates this. An archive storage business (based on their client mix) made the determination to create the most dense storage facility possible. Their "racking" solution had to be flexible to grow as their need changed. In working with their material handling integrator, they soon came to the conclusion to store boxes as high and deep as they possibly

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could. This conclusion was arrived at after analyzing the expected growth in business and records pulling frequency in the upcoming five years.

Their earlier "racking" solution, shelving, was incorporated elsewhere in the facility and was used for low volume storage needs within their vault storage area.

To increase accessibility they chose to have their pickers on fast picking narrow aisle equipment. This choice eliminated the structure required for multiple floor levels and allowed for narrow aisle machines for both travel and lift of their pickers. Their choice also created the benefits of maximum storage and effortless product movement.

Facility Restrictions

Whether building a new facility or retrofitting a storage business in an existing operation, space utilization challenges abound. So many variables go into designing an integrated material handling solution. Simple criteria such as building height, room size, the number, size and location of existing doorways, even the number of floor levels within the system make a huge difference on determining your ultimate solution.

A successful supplier of archives and records management recently created with their material handling integrator, a high bay, and high-density storage system. The many factors of egress, sprinkler system and throughput quickly became factors in determining their ultimate solution. With the assistance of vertical reciprocating conveyors (VCR's), high-speed order pickers and the proper decking and flue systems they created a system that sufficiently met all of their needs.

Additional factors like building, fire, seismic and zoning restrictions also play in the mix. Working with a qualified and experienced material handling integrator, with a background implementing projects across the country, should aid in your understanding and fulfilling of these requirements needed to create your ultimate cost efficient facility.

Conclusions

Whether your ultimate goal is a cost per box of \$1 or less or even \$2 per SKU, answering the questions of customer mix and facility restrictions can and will have a direct effect on enabling you to achieve your goal and

control costs. Having a goal is not enough; knowing how to obtain your goals takes experience. Deciding on storage formats will impact your solution along with selecting the mix of storage options (shelving, catwalk or a high bay, and high-density storage system is another contributing factor. For example just adding one more level of carton storage can easily lower your cost per box!

Your ability to understand and manage these variables will in the end help determine how competitive you will be in obtaining business. We are early in the evolution phase in this lifecycle with few barriers of entry, making it easy for many companies to provide this service. As the records storage market matures, only the profitable companies will survive adding a compelling reason to fully understand and manage costs.

Your material handling systems, storage and equipment along with staff comprise cost. An experienced material handling integrator can assist in determining the best solution based on your unique situation. Planning for an eventual facility expansion or a change in your customer mix may disqualify one solution over another, making working with an experienced material handling partner a must!

It's pretty simple; it's supply and demand. What will you do today that will position your business to remain competitive in the future?

About the Author:

Jon Paul is Vice President of Sales and Marketing of Morrison Company. As an engineered material handling solutions integrator, Morrison Company assists records storage companies with solutions to their material handling needs. Morrison Company is celebrating its 75 years of servicing client's material handling needs. For more information on records storage solutions, [email sales@morrisoncompany.com](mailto:sales@morrisoncompany.com)