A C K E R M A N
WAREHOUSING FORUM
The industry publication dedicated to helping warehouse managers and their bosses improve productivity and manage more profitably with tips, comments and articles written by practicing professionals.

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# Supply-Chain Management in the Boardroom -- Its Meaning for Warehouse Operators

*Editor's Note:* "The 21st-Century Supply Chain," *a series of articles published in the October and November 2004 issues of* Harvard Business Review *served as inspiration for this article. Particular emphasis was placed on the* "Triple-A Supply Chain" *by Hau L. Lee, which is on page 102 of the October issue. KBA*

In the October and November issues of *Harvard Business Review,* 32 pages were dedicated to a series titled, "The 21st-Century Supply Chain." A campaign of this size, from a prestigious general business magazine, is unprecedented. In previous articles, we have addressed the decision by the Council of Logistics Management to adopt a new name in which "supply chain" is substituted for *logistics*. This recognition of the importance of the field by *Harvard Business Review* is a potent signal that the concept of ***supply chain*** has captured the attention of senior management. Several decades have passed since a tiny group of traffic managers formed the NCPDM (National Council of Physical Distribution Management) to nurture the development of physical distribution. Nearly two decades have passed since the Council changed its name and mission from physical distribution to logistics. Yet, neither physical distribution nor logistics has had comparable impact on the editorial staff of any general business publication.

This article is not a book review, nor is it a commentary on the editorial content of the four supply-chain management articles published so far (two more appeared in the December issue). Instead, it is our effort to adapt the content of the articles to help our primary readership, the owners and operators of warehouses, plan for the supply chain environment.

Professor Hau L. Lee, of Stanford, observed that the supply chain consists of three As: ***agility, adaptability*** and ***alignment***. In Figure 1, the adaptation of the three As to warehouse management issues is illustrated.

**Figure 1 – The Three As**

**AGILITY**

**Objectives**: To operate the warehouse in a sufficiently nimble fashion, to be able to respond to sudden changes in demand, and to have the capability of handling predictable disruptions according to a prearranged plan.

**Methods:**
- Create a plan to ramp up to meet a sudden 30% increase in volume
- Do the same for an unexpected 30% *decrease* in volume
- Create contingency plans to deal with a variety of disasters
- Create a crisis management team with procedures and readiness drills

**ADAPTABILITY**

**Objectives**: To create long-range capabilities to meet market shifts, management changes, and technological developments

**Methods:**
- Insure that no single customer represents over 30% of warehouse capacity or revenue
- Create a succession plan for every management position
- Create a research and experimental team to test new concepts and methods
- Perform annual management reviews of emerging technology
- Measure and evaluate the needs of your customer's customer

**ALIGNMENT**

**Objectives:** To insure that both the long and short term goals of warehouse managers are aligned with corporate goals

**Methods:**
- Review warehousing goals with senior management each quarter
- Create incentives that reward managers for achieving corporate goals
- Evaluate and communicate changes in corporate strategy and goals
- Share risks and gains of warehouse improvement initiatives

## *The Agile Warehouse*

For maximum flexibility, your warehousing operation might have no real estate and no full-time workers. If you relied on short-term rental of available warehouse space, and purchased all hourly labor from staffing services, you would maximize the ability to grow or shrink the operation to meet changes in demand. Of course, you would sacrifice the advantages of dedicated real estate and permanent, well-trained workers. Let's consider agility strategies for both the real estate and personnel.

When there is a substantial surplus of warehouse properties, the short-term rental strategy works very well. One

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logistics provider uses a collection of relatively small warehouse buildings, on short-term leases. If a landlord will not renew or demands an unreasonable lease rate, the provider is willing to move the inventory to another warehouse having more favorable terms. What happens though when warehouse real estate becomes scarce? Could the operator be in a position in which inventories must be reduced to fit in a declining supply of space, or will he be forced to adjust the prices charged to customers to compensate for escalation in rental rates? Real estate agility works well in a buyer's market, but not in a seller's market. The operator who controls the cost of real estate may have a better experience in the long run.

The ability of staffing services to provide quality workers for a wide variety of jobs is proven. Yet, many operators believe that the work in their warehouses is too complex, demanding and critical to entrust to temporary employees. Some are concerned that the staffing service will not provide the level of benefits that are paid to full-time employees, a failure that could result in bad publicity for the corporation, when a portion of its workforce does not have health care and other insurance benefits.

Increased agility might be achieved through a mix of long and short term real estate commitments. A similarly nimble presence is achieved with a blend of full-time and part-time warehouse workers. In one company, a group of the most talented hourly workers are designated as "ambassadors," becoming temporary supervisors when part-time people are added during the heavy season. The full-time staff consists of the minimum number of people needed to handle the lowest seasonal volume, and the part-timers represent the additional help needed to meet peak shipping requirements. The full-time people recognize that they are protected from layoffs by the use of temporary workers.

Your real estate and personnel tactics must be accompanied by a plan to handle surges in demand, as well as an unexpected collapse of volume.

## *Agility And The Public Warehouse*

Until 20 years ago, the great majority of logistics service providers were public warehouses that operated under a 30-day contract. This was a risky business, but one that gave the user maximum flexibility. Of course, the flexibility worked both ways, since the contractor was free to adjust prices and services whenever conditions changed. During the 1980's, a trend away from public warehousing and the application of long-term warehousing service contracts began. The contract provides a measure of stability, since prices and services can be frozen at predetermined levels; however, while stability is gained, flexibility is lost.

With the new emphasis on the agile warehouse, we predict that the 30 day public warehousing agreement will enjoy a renaissance in the years ahead.

## *The Adaptable Warehouse*

Adaptability might be defined as long-term agility. It is your ability to adjust to shifts in supply sources, market demand, product development, or technology.

Let's consider specific examples: Some logistics service providers dedicate a significant portion of their capacity to the tobacco industry, a business which is in decline. One warehouse service provider declined to invest in updated real estate and failed to diversify his customer base. When the tobacco manufacturers abandoned this warehouse to consolidate inventories in a larger city, the company went out of business. Another service provider with the same market specialty has aggressively expanded the territory that he serves by creating a larger trucking operation. This company now distributes over a 300 mile radius and it has grown in volume in spite of a contraction of tobacco demand. While this strategy has worked effectively, the company also is working diligently to diversify its customer base in order to survive a possible loss of tobacco business.

Perhaps the number one cause of business failure in the logistics service and wholesale distribution industries, is the challenge of too many eggs in one basket. You can read more on this subject in the *Warehousing Tips* column.

Some warehouse operations are troubled by a failure to adapt to changing markets. One of the companies featured in the *Harvard Business Review* retained management advisors to consider the question of eliminating wasted space in its corporate distribution centers. In the consulting study, it was revealed that plant warehouses had been designed during a time when the manufacturer produced a small number of models in high-volume. Changing market conditions now have caused this company to process approximately five times as many SKU's as were produced ten years ago. Since the warehouse layout included deep rows of high-volume items and the inventory no longer conformed to those plans, space was wasted. The solution was to adapt the storage layout to meet today's market conditions.

Senior management also must have the capability to adapt to personnel changes. Warehousing is an unusually people-sensitive business. One warehouse chain operator made an error in appointing a chief operating officer as the replacement for a retiring executive. The newly appointed executive lacked interpersonal skills which resulted in the loss of some key customers and alienation of others. Eventually the owners realized what was happening and dismissed him.

Companies in many industries have been disabled by the unexpected loss of a key manager. Recognizing this risk, the adaptable warehouse should have a detailed succession plan. Every key person should choose and train a successor. Still, it is rare to find warehouse managers who have implemented such a practice.

Adaptability also requires the review and use of changing technology. 21st-century warehousing often involves tools that were undreamed of a decade ago. The Internet, RFID, task interleaving, and voice-actuated order picking systems are just some examples. Not every piece of technology will work as well as its promoters claim, and for every success there are bound to be a few failures; however, the most serious failure for warehouse management is to ignore the potential of new technology.

Both warehouse service providers and private warehouse operators should look beyond the immediate customer to consider the needs of the customer's customer. The customer's customer is the consignee receiving shipments from your warehouse. What steps can management take to improve relationships with the consignees, who, in turn, have the capability of helping or hurting your relationship with the primary customers? One service provider specializes in the distribution of consumer packaged goods, and he has focused his marketing on meeting the needs of a few retailers, who then refer manufacturers to his company.

### *Alignment*

Do the operating goals of your warehouse conform to the primary objectives of the corporation? We have observed cases in which the top management was focused on rapid growth, while the warehouse managers understood the primary goal to be reduction of expenses. While each executive hopes to develop a cost-effective operation, those in growth companies should not compromise the corporate goal by over-emphasizing cost reduction.

During the roaring 90's, hundreds of dot-com companies established fulfillment warehouses that were designed to accommodate rapid growth. Many spent millions on mechanized warehouse handling equipment to allow handling of greatly increased volume. As boom turned to bust, relatively few warehouse managers recognized that the strategy had changed from growth to survival. Sadly, many who did recognize the change did not have the ability to resolve the problem.

At other times, the goals may change but the incentive rewards do not. People will do that for which they are rewarded. When the incentives are not aligned with the corporate goals, no amount of communication will result in changing established patterns of behavior. Do you have a clear understanding of the current goals of your Corporation? Is there any evidence that the goal today is different from those that existed five years ago? Is the reward system aligned with the current goals?

Ultimately, every warehouse should be designed to support the long-range goals of a corporation or other organizational entity. Everyone in your organization should understand why the warehouse was established, as well as what actions must be taken to maintain its viability today, and in the future.

## *Marketing Myopia In The Warehouse*

*A presentation by Bruce Edwards, chief executive officer of Exel Americas, and another by Professor Arnold Maltz of Arizona State University, given during the annual convention of the International Warehouse Logistics Association, served as inspiration for this article.*

Legendary Harvard marketing professor Ted Levitt was the first to write about marketing myopia. He recognized that the railroad industry would decline as long as management believed that they were in the business of operating trains, rather than that of marketing transportation services. He added that Hollywood management viewed television as a threat, because they considered themselves to be in the movie business, rather than the entertainment business.

Few vendors of products or services recognize precisely what the customer is buying. Levitt pointed out, for example, that the consumer purchasing an electric drill is not buying the tool, but the perfect holes that the tool can create. Myopia is the technical name for nearsightedness, and nearsightedness is a disease afflicting many managers in a variety of industries.

Warehousing service providers are no exception. Many of their customers are not sure of exactly what they want to buy. Many, perhaps even a majority, fail to understand what constitutes a fair value in warehousing services. In many 21st-century corporate structures, the logistics buyer has little or no knowledge of the nuts and bolts of warehousing services.

To compound the problem, too many vendors sell warehousing as though it was soap flakes. When business is bad, they offer special deals and cheap prices. In the worst cases, prices are offered which are not sustainable, and the experienced buyer knows that the "lowball" figures will require adjustment sooner rather than later.

The same warehousing service vendors suspend sales efforts when their buildings are full, returning to the same frantic marketing activity when they have too much empty space.

The intelligent buyer of logistics services is looking not for the cheapest price, but the best value. That value is measured in dependability, experience, and a track record. Like the buyer of an electric drill, the customer for logistics service is not buying beautiful buildings or even impressive management; instead, he is purchasing logistics value. When the vendor does not understand this, and fails to market the value proposition, he may fall victim to the "lowball" competitor.

If you are the warehouse operator, put yourself in the buyer's shoes. He knows that logistics services have value, but frequently that value is hard to define. He does know that his career depends on his ability to satisfy customers with on-time deliveries arriving in perfect condition. As buyer expertise declines, and the 21st-century sourcing mentality takes hold, some warehouse managers must respond to electronically transmitted requests for information (RFIs) and later with requests for quotation (RFQs). The salesperson may have little or no face-to-face discussion with the potential customer. In this situation, communicating value becomes particularly challenging.

If you are the vendor of logistics services, do you understand exactly how you create value for your customers? Do you communicate that value proposition clearly, in your sales presentations? Do you present case studies illustrating innovations separating your company from the competition? Are you sure that both existing and prospective customers understand the value that your company creates every month? Remember: The buyer is looking for perfect holes, not a perfect drill.

# WAREHOUSING TIPS

## *Too Many Eggs.....*

The most common error that we find in our examination of the logistics service provider industry is a tendency to become fatally dependent upon the revenue from one or a few related customers. We have seen this problem many times, but no single incident was more poignant than the case of a long established public warehouse that recently closed its doors.

Some time ago, the company attracted a highly valued new customer, the manufacturer of a perishable food product having a six month shelf life. The new client became one of the company's largest with 20% of the total revenue. Furthermore, in a relatively short time the new customer grew to represent 45% of revenue and the receivables increased greatly. After a rapid rise, this customer went into bankruptcy. With good legal advice, the warehouse operator declared a lien on the stored property and along with two secured creditors sought permission from the bankruptcy judge to liquidate the perishable inventory. After three months of inaction, the bankruptcy court finally lifted the stay. One of the two secured creditors, the capital division of a well-known manufacturing firm, immediately contested the warehouse lien because they did not want to share revenue gained from the sale of the bankrupt customer's product. The warehouse refused to relinquish the goods without the lien being honored, and the secured creditor in question obtained a court ordered writ-of-seizure, requiring the warehouse to relinquish the goods without payment of the lien while granting the right to litigate subsequently for the lien. The secured creditor had to post a bond, well over twice the estimated value of the released product.

With the delays caused by the bankruptcy court, as well as the legal action taken by the secured creditor, the calendar ran down for the perishable product, bringing it close to the end of its shelf life. The sale of the inventory yielded only a fraction of the original value. While the dispute lingered in the court, the warehouse operator was bleeding profusely, with a full warehouse, very little space left to sell, and insufficient revenue to meet normal expenses. The impact of this chain of events destroyed a highly regarded warehousing company having more than 40 years of service. Even if the lien ultimately is settled in favor of the warehousing company, the proceeds will serve only to benefit its creditors.

Until recently, observers of the logistics service industry expressed concern about the stability of the service providers, without considering the possibility of a major customer going bankrupt. Most operators believe that they are protected by their common-law right to perfect a warehouseman's lien and liquidate the inventory. Few could imagine a turn of events such as this example in which the customer's revenue grew quite suddenly, and the inventory could not be liquidated for any reasonable value. Relatively few contingency plans are designed to address a comparable disaster.

What can we learn from this tragic episode? Constant checking of credit is important, and the credit of the customer is as critical as that of the suppliers. If your intelligence system is good enough to provide early warning of a potential business failure, survival chances will be improved. Concentration of revenue is like a malignant tumor. Unless the percentage of revenue can be controlled and reduced through new sales and diversification, the results might be fatal.

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## *Improving TheTraining Process*

It is a sad reality that management training is one of the first expenses to be cut when times are tough. Unfortunately, that is usually when it is needed most. With a generally improving economy, there are signs that management is beginning to restore training initiatives that were terminated a few years ago.

With this in mind, there are two ideas that should be considered. First, develop a plan. Instead of cherry picking current announcements about seminars and workshops, establish goals for staff development and determine who in the organization should receive specific kinds of additional training. Second, a manager who participates in a seminar or workshop should be required to share the information covered, either in a special meeting or by memorandum. Furthermore, a follow-up inquiry should be made to determine whether or not the trainee has been able to apply the information or content learned to the workplace.

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## *A New Look at Housekeeping*

By Rock Miralia, Distribution Technology Inc.

I believe that warehouse housekeeping does fall apart overnight, but deteriorates slowly, over time, so that the change goes unnoticed. We have created an audit process that disallows poor housekeeping practices.

One of our warehouses, utilized primarily for grocery products, is a showcase facility. As pallets are put away after receipt, the last pallet position close to the aisle is squared to a painted line. When we walk along the aisle, we see that each row has pallets squared up to the line on both sides. Small signs placed alongside each aisle read, "Our pallets salute you." Specific aisles are assigned to individual warehouse workers, who are responsible for maintenance of the area. Every pallet that is stored must "toe the line."

After my walking inspections, if I have identified evidence of deterioration, I point this out to both the line supervisor and the manager. Then, I schedule a follow-up inspection. Failure to correct the situation by the second tour could result in the termination of the supervisor, or even the manager. This disciplinary action has not resulted in lost time: but rather it has served as a pride and morale booster, because our people learn to do it right the first time.

# KEN'S COMMENTS

## People Versus Commodities

One consequence of the information age is the ability of a buyer to replace the human interchange that occurs in the procurement of a product or service with the computer. Not long ago, we received an e-mail inquiry from a large company regarding the purchase of consulting services. After responding, we received a second message, which included a questionnaire. As the process continued, it was fairly obvious that the buyer was considering dozens of resources, without any personal contact. We declined to enter the contest.

Buyers are not the only people who behave this way. A logistics service provider telephoned with a request for a "competitive price" over the phone, or by email, to assist with his bid on a fairly complex fulfillment operation. When we explained that such pricing should be based on costs and detailed understanding of his operation, he went away in search of someone else who might provide quick answers.

Computerized procurement procedures can work when one is buying a commodity. Most management services, though, including logistics, are governed by a personal factor that cannot be measured by any computerized purchasing system.

Impressive technical qualifications are no substitute for a management demonstrating that it cares for the customer, and is willing and able to exercise that care with small, as well as large customers. When you buy human services as though they were commodities, you certainly will find the lowest bidder, and most likely will receive just what you pay for. Consider this: If you needed a neurosurgeon, would you simply shop for the lowest bidder?

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## A Marriage Of Operations And Marketing

Much has been written about postponement, since the concept was first described by a marketing professor a half-century ago. Most understand that postponement is the delay of packaging, final assembly or labeling until the last possible moment, or even after the product has been sold.

We were greatly impressed by a newer description of the concept, as a way to bring operations and marketing together. This is an appropriate description of postponement, since it provides substantial advantages for both marketing and operating people. For the marketer, the problem of running out of stock is virtually eliminated, since final assembly is not performed until the product is sold. As long as there is an ample supply of components, the finished product can be created on a customized basis. For the operations people, postponement allows a single "plain-vanilla" item to be converted into dozens of customized products when the final operation is completed. Inventory management is simplified, and inventory investment is reduced.

It would seem that this is a marriage made in heaven, however, it has some disadvantages as well. Since postponement requires a production operation just before shipping, order cycle time may be slightly longer than shipment of completed products. When a production operation is performed in the warehouse, quality control of the process is critical and may be more difficult than it would be in a manufacturing operation. On balance, we believe that the advantages outweigh the disadvantages. Surprisingly, postponement is seldom found in today's supply chain operations.

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## The Importance Of Simplicity

The most important message in "*Jack Welch and the GE Way*," a new book by Robert Slater and published by McGraw-Hill, is that simple stuff travels faster than complex stuff. Elimination of clutter allows for effective decision making.

Decades ago, as a graduate school student working for an MBA degree, I was warned that use of technical language would result in an unsatisfactory grade, because the graders of our written case analyses, were undergraduate students with little or no knowledge of business. The warning meant that if your case could not be made in plain English, then it had better not be made at all. Those who insist on making simple things complicated are likely to lose at least half of their audience. Unfortunately that half is likely to include senior management.

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## Managing A Company Crisis

In our current wartime environment, mention crisis and the 9/11 attack comes to mind. But many other critical corporate events will test the skills of senior management. What should you do when a dozen demonstrators show up outside of your company offices? How do you respond to the questions of reporters in the wake of a fatal accident at your warehouse? How do you keep the business running after a fire or earthquake has damaged most of your plant?

Because every management team should have a detailed program in place to deal with every imaginable company crisis, creation of a disaster plan is critical. Outside resources, including your CPA and your attorney, should be included on the planning team. As you prepare for the unthinkable, ask yourself what the worst thing is that can happen to your organization, and create a plan that addresses it.

Who will be the primary company spokesperson, and who will be the backup? How will telephone calls, or visits from journalists, be handled? If the CEO is not the primary spokesperson, how should he or she handle the challenging questions that will be asked?

Remember that it is never too early to plan. When you hear the thunder, it may be too late to build the ark.

## The Transformation Of Truck Transportation

By L. H. Harps, *Inbound Logistics*, September, 2004, pg. 76.

Because trucking is so closely allied with warehousing, this comprehensive history of the motor freight industry in America is worth reading. Several major carriers are profiled in the article which also addresses the birth of the industry, the beginning of rate regulation in the 1930's, the development of the interstate highway system, and the drastic changes following the passage of the Motor Carrier Act in 1980. Unfortunately, the author chose not to address a sensitive subject: The decline of labor unions and the rise of new non-union carriers.

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## Building Better Boards

By David A. Nadler, *Harvard Business Review*, May, 2004, pg. 102.

This article should be read by every senior executive who wants an outside board. Five kinds of boards are described, ranging from least involved to most involved, as follows: The passive board; the certifying board; the engaged board; the intervening board; and, the operating board. While it is clear that the engaged board is the most common type, board involvement may change in response to a crisis.

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## The Right Attachment For The Job

By Bob Trebilcock, *Modern Materials Handling*, May, 2004, pg. 30.

Investigated in this article is the underreported subject of lift truck attachments. Some of these frequently are overlooked or ignored. Some pallet handling devices are designed to lift two or more pallet loads simultaneously. Automatically, the position of forks will be adjusted from side to side, saving both time and risk of injury. Clamping units are used for products that do not lend themselves to palletization, such as paper rolls, cotton bales, and major appliances. Push/pull units are used to move the unit load on or off of a slip sheet. The layer picker allows the operator to select one or more tiers from a unit load.

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## Technology Advocate Says RFID Boom Is Still Years Away

By James Cooke, *Logistics Management*, October, 2004, pg. 20.

At last, the journalists have discovered that the emperor has no clothes! The former executive director of MIT's Auto-ID Center predicted that widespread adoption of RFID is at least five years away.

## Who's Who in 3PL WMS Software

By Philip Obal, www.idii.com, 342 pages.

In this comprehensive workbook, all the steps are listed that a logistics service provider should take in considering the purchase of packaged software. Except for a brief presentation of insights and tips, as well as comparisons of installations and customer bases, nearly 90% of the text is devoted to profiles of providers of WMS software. As in previous books by the same author, this text offers a no nonsense approach to the task of selecting a vendor of warehouse management systems.

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## Is Data Capture In The Way?

By Jim Apple, *Modern Materials Handling*, July, 2004, pg. 72.

In much the same way as mechanical systems, the interface between computer and operator needs to be analyzed thoroughly. A slowdown in pick rates can be caused by the handling of the data terminal. A savings of 10 seconds for one, one-minute transaction, results in a 17% labor reduction. Our time is better spent analyzing the productivity impact of each required task, than debating the merit of one system versus the other.

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## The Supply-Chain Handbook

By J. A. Tompkins and D. Harmelink, ©2004, Tompkins Press, 494 pages, www.tompkinsinc.com.

Written as a handbook, with 26 chapters by guest authors, this comprehensive text is a replacement for *The Distribution Management Handbook* published several years ago. The text offers substantial detail about every single link in the contemporary supply-chain. The four chapters devoted to warehousing and material handling, as well as a chapter about warehouse management systems, should be of particular interest.

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## Outsourcing Supply-Chain Management

By Tom Craig, *World Wide Shipping*, October/November, 2004, pg. 12.

Exposed by this provocative article are some new ideas on the subject of outsourcing. First, it is essential to define just what is being outsourced. Second, be prepared to answer the "why" question, and to describe the desired outcome. Third, understand the risks involved. The author described the following risks: Setting unreasonable expectations; personal conflict between buyer and seller; conflict with traditional organization silos; and clashes of corporate culture.