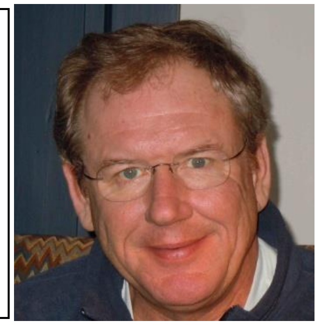
Operation Excellence

December 11, 2013



Optimizing Silos... what a waste! Christmas Catalogs... how does it get here? Where do we buy? Where do we sell?... It makes a big difference!

In the past few months, I've been asked to review a couple of companies and their manufacturing processes... "Are we making stuff right?" (A better question might have been, "Are we making the right stuff?") After several days touring multiple facilities, when I told them, "yes, you are in an industry with mature technology, and you are probably doing about as well as your peers... you all use identical raw materials and pay the same price for those. Your equipment is not state of the art, but substantial upgrades would not be cost effective... it takes a heck of a long time to pay off a $500K machine with no appreciable improvement in quality, labor utilization, etc." In short, it wasn't the answer that they wanted to hear. I'm sure that my reports went into a drawer and the internal summary was, "that was a waste". Given the limited scope of the task... yes, I agree it probably was a waste!

Reflecting back on a couple of these situations ... it struck me... these firms still want to optimize the silos. "Let's fix manufacturing!" As a silo, in these firms, these manufacturing operations weren't broke. Sure, you could "5S" the place... form a functioning safety committee, improve employee communications, reduce manufacturing lot sizes, form self-directed work teams, etc... and don't get me wrong, those things SHOULD BE DONE... but in doing those you might find a penny here, or a penny there... however, it certainly won't be a meaningful change to the financial results of the operations.

[Let me take a different tack here for a moment... I'll tie this all together in a couple of minutes].

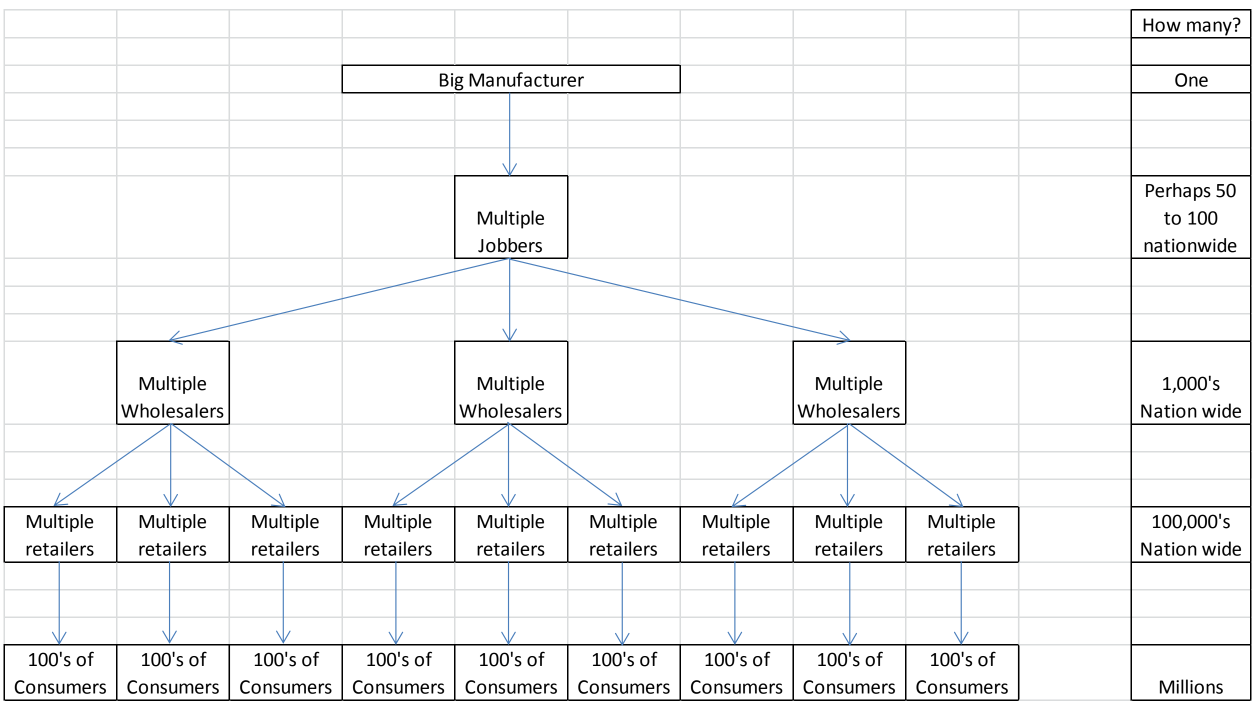
Christmas Catalogs. I'm sure that your home mailboxes (and emails) are overflowing these past few weeks with promotional materials for gift ideas for the upcoming holiday season. I picked one up yesterday and glanced at the cover... the most prominent statement on the cover was "SAME DAY SHIPPING!" Now, that banner might have been a real selling point in the late 1980s... but today, for that industry... that is a big yawn – everybody ships the same day! Heck, Jeff Bezos made a splash on 60 minutes last weekend about how he sees the day when Amazon delivers goods with drones! Imagine order on-line and have 30 MINUTE **DELIVERY** --- not "SAME DAY **SHIPPING**!"

[Let me take still yet another different tack – hold on, these all come together.]

Logistics and sales channels. This country experienced its most rapid period of economic expansion in the post WWII period. Transportation of goods was very difficult... no single source point to point logistic networks existed. Neither UPS, nor FED-Ex, nor DHL were yet created. You either shipped by regional carriers that had alliances or the USPS. The ability to monitor and thus extend credit was impossible... you had to apply for an account, received and paid from statements, etc... direct withdrawal of funds, direct deposits, Pay-Pal, Visa, Master Charge, American Express... none of these channels/systems existed. With the strong demand for goods, local distributors flourished in almost every market place. These distributors' strategies were simple (and very similar)... they provided local availability of goods --- they purchased in bulk to minimize transportation costs (either Truck Load or through shipping companies that specialized in LTL – that had many terminals – again, not point to point), and the distributors provided local credit and collection of funds. They existed primarily for these two reasons... local availability of goods and local credit as the bigger firms had no idea who their customers were nor had the systems to deal directly with them.

Lumber yards, gas stations, drug stores, grocery stores, men's and women's clothing stores (clothing -- if you knew any local purveyors of these items the big event of the year was going to the Merchandise Mart on a buying trip), agricultural feeds, aftermarket auto parts – All of these goods took a similar route to the eventual consumers. Manufacturers ship to several smaller entities, that in turn ship to several smaller entities that then ship to local distributors and then are sold to the consumer.

The network would look like this:



[Forgive my elementary graphic skills (my graphics department is a very limited part time operation) – but I think you get the point!]

Now consider this typical supply network... if every level is feeling pretty good about perhaps a 45 day turn... "after all, we used to **<u>only</u>** turn our inventory **<u>4x</u>** (90 days)...", with 3 levels of intermediate stops in the supply chain... there is 180 day supply... (actually, I've seen much, much worse in the past couple of years, but again, their management was silo oriented and didn't want to know that.)

"Do the products have a shelf life?" "Yes". "How long?" "about 6 months!", "... do you realize that you have 6 months in the supply chain?" "No, we only have about 45 days!" That was an actual comment folks, you can't make this stuff up! (And remember the 6 months is an AVERAGE... some items are out of stock and some items are still saleable (?) after two years?)

Another one I indirectly heard lately... "If you can make this item in less than 15 seconds (3 operations 5 seconds each), why do you have 30 days of this product family on the shelf?" ... Reply from the company's President, "because we have so many SKUs (of that product family)!"

[Consider that last paragraph again ... sorry I can't help myself, quoting my friend Gene Yarussi, who once bluntly stated, "Does that sound as stupid to you as it does to me?"]

The number of SKU's has nothing at all to do with the level of FG inventory that should be held for sale. It has everything to do with the time to replenish. A 15 second manufacturing cycle time protected with 2,592,000 seconds of finished goods is NUTS!

So, let's tie this together ... we have manufacturing companies that know that they have to improve.. financially, they are seeing less favorable results year after year. They look at **their** income statement and see that the COGS is the biggest item on that page. They then put on their special "silo" glasses and mount the cry, "Let's fix manufacturing!" Folks, there are some companies that have troubled manufacturing operations – I won't deny that, but look again at the graphic above. Remember the quote of Dr. Ohno, father of the Toyota Production System, "All we were trying to do was shorten the time required from when the consumer ordered the car until we collected the cash."

How do you shorten the lead time?... you get it there quicker! How do you get it there quicker, ... you eliminate one of the levels of distribution, (one of the speed bumps!) Modern communication and transportation systems are still not being fully and effectively utilized by all manufacturers... those that don't address this issue will most certainly fail!

There is far more margin improvement possible by eliminating one (or more) of the steps in the supply chain to your customers. Each step adds a minimum of 20% to the previous level's cost. If you can install systems that eliminate a step and keep ½ of that amount as improved margin... you will have achieved far more than you can ever see as a result of "fixing manufacturing". Can't do that because of inertia? (i.e. that is the way that we have always done it) – Look out! You are headed for the ditch! You must segment your market for the growing portions that will demand it. If you don't, your competitors will!

Modern communication systems, transportation systems, computer direct order entry systems... (forget orders... set your customers up on direct replenishment systems), modern banking systems... (I now deposit checks into my bank account with my Ipad/Iphone) have had a phenomenal effect on our economy. Yes, the mom and pop distributors and retailers are being replaced and will continue to be eliminated... anyone seen an ice delivery man or a home milk delivery service lately? ... There are no guarantees of "forever".

As a recent example, I have an Acura with 45K miles... it needed tires. The local tire distributor that I have dealt with for over 20 years gave me a quote of $1,280 for a set of 4. "Jim, I'll need a week to get them here!" I found them on-line for $854 (with free shipping) ordered on Tuesday and arrived on Thursday from South Bend, IN. The firm that sold them to me "gets it"... there is no value added for a growing segment of the market to have the tires go through probably 2 more levels of distribution – therefore put in systems to eliminate them. I got them mounted for $75. Never spoke to a single person until I went to have them mounted. Order entry was on line, a pay pal transaction was accomplished, they were picked, shipped and delivered – I saw the UPS truck leave pulling away. It wasn't worth it to me to pay almost $250 more for slower delivery based on a 1950's distribution model/process.

Back to companies, contrast a couple of actual scenarios – granted one company is directly servicing the customer and the others are manufacturers.

	Company A(mazon)	Company B	Company C
Primary Function	Distributor -- but buys direct from manufacturer	Manufacturer	Manufacturer
Order Entry Method	On-line no human interface	Orders are allowed to be faxed 1x per week and then manually entered	Orders taken via fax and phone... Entered into the system manually
Order Entry Capacity	demonstrated 300 orders per second	4 locations, each with 2 fax machines used by a total of 400 customers. Orders are then manually entered into the system. Orders entered today will be recognized tomorrow. 400 orders per week!	7 locations... Fax, phone, orders entered today will be recognized tomorrow. They process 550 invoices (orders) per day.
Delivery schedule	Shipped same day. Premium freight is available, to facilitate faster deliveries at the customers' choice, on line.	11 day lead time...orders delivered same day each week but 4 day cut off before shipment	Typical lead time perhaps 3 to 14 days...
Basic commodity warehouse tracking technology	Extensive use of bar code with emphasis on utilization of warehouse and picking efficiency	Parts go generically where they can go within family groups	Parts go generically where they can go within family groups
Annual Revenues	$61,900,000,000 last annual report	Privately held... >$100,000,000	Privately held... >$100,000,000
Year founded	1994	2002	With acquistions and consolidations hard to tell... Current ownership ~2007...
Strategic emphasis	how to deliver within 30 minutes of receipt of order	Grow sales a 6x multiple within 5 years -- fix manufacturing	Fix manufacturing
Management Thought Process	Supply chain	silo	silo

So... Do YOU think that companies B & C are on the right strategic path? They are run by smart people. While they are successful today, do you think that they will be as successful tomorrow?

Amazon isn't the best at what they do... how many transactions do you think that Walmart does per minute? ... in most instances, goods purchased in their stores today are replenished from a distribution center tonight, without order entry, without credit and collection, and the replenishment/distribution centers are run with no forecasts...

If you are intrigued... Walmart's stats.

Founded: 1962. Revenue: $469,000,000,000. Employees: 2,000,000. Locations: 11,047 (US). BTW the Walton's still own more than 50% of the company.

Fixing the manufacturing "silo" isn't the only path that needs to be explored. We "manufacturing" folks have to look at the much broader supply chain. The key is faster "flow".

[I haven't even opened the door on the supply chain coming to the manufacturers]

It is a New Year... do you need a fresh set of eyes to look at your **entire** operations and supply chain? We can help! It won't be a waste!

"Profound knowledge must come from outside the system – and it must be invited in."

--W. Edwards Deming

All the best!

Jim Covington

www.jpcovington.com

815-988-5404

Other:

I have a good friend John Covington (not related by blood, but certainly by spirit). John runs Chesapeake Consulting Inc. Chesapeake is a boutique firm that focuses on enterprise fitness. http://chesapeakeconsultinginc.com/ He too has a mail list, and monthly he publishes a list of mental pearls that I find to be worthy of consideration. Last week, his column was timely and stresses that Advent season is a time of year to consider personal planning for the year ahead. I couldn't find it on Chesapeake's website... but there was a link that I'll share here: http://hosted.vresp.com/1042041/fde3f169f3/TEST/TEST/

The column talks about making a list of the "as-is" and another column of the "to-be" – if you find it worthy, I'm sure that he would gladly add you to the list, as his is a process with weekly assignments for the next three weeks that I'm certain will be worthwhile. Thanks John!

One other note. 2013 has been a difficult year our family. Some, but not all of you know that Jody had a major health issue early in the year that we were told was all clear, but reoccurred while we were in France in September. After 23 days in the hospital there and a hospital to hospital transfer from France to UWHealth in Madison for an additional 9 days stay she was able to return home. She is recovering... the prognosis is for a full recovery – but it will be a few more weeks before life becomes close to the "old normal".

The support of friends, family, and folks we didn't even know has been overwhelming. As John's above article states, these events have certainly brought a focus to our lives and an appreciation that "people are good".

Thank you and may god bless!

Jody and Jim Covington