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A Resurgence in Zero-Based Budgeting

By Rick Emerson, Principal, Emerson Supply Chain Consulting

Editor's Note: Warehousing literature includes remarkably little about finance or budgeting. The financial issues are not easy to understand, and even more difficult to explain. Our guest author has deep experience in the financial side of warehousing operations, and he explains it in a manner that even the innumerate reader can understand. KBA

A competitive edge through budgeting

Zero Based Budgeting (ZBB) gained popularity for a decade or so and then declined. One key reason for the decline in ZBB was the amount of perceived work required by an organization to successfully implement this detailed approach. Another was the limitations of accounting system technology and spreadsheets to support the process. Additionally, the pace of technological change required for businesses to survive was demanding frequent revisions within the budgeting process. To be successful ZBB involves an organizational transformation at all levels.

This type of cultural change is difficult at best, and it takes time to ripple through the organization. After 40 years though, there is a resurgence of bottom up budgeting like ZBB, supported in part by newer technological tools that enable easier access to granular data. But why consider implementing these time-consuming aproaches? Because when done successfully, it tends to free up greater capital and human resources to reallocate toward growth. Also, it can have greater positive impact to the bottom line than the traditional methods.

In today's world of rapid change in supply chain channels, warehousing logistics has been forced to become a flexible buffer between source manufacturing and the end customer. Smaller order sizes, faster delivery expectations, and exacting shipping accuracy driven by today's consumer now create the need for more flexibility and responsiveness in the traditional warehouse model. To survive, companies must adapt radically to satisfy customers, make a profit, and grow. Transforming the organization's budgeting culture to provide this flexibility will help position the warehousing organization to quickly adapt to changes, implement more frequent process improvements, incorporate technological advances and increase profit of new offerings. This is far more than just traditional cost reduction.

Why abandon your traditional budgeting process?

Why should you be wary of traditional budgeting processes? Traditional budgeting at a basic level is essentially building your budget off prior year results. Accommodations for business changes along with inflation are usually set by accounting targets. Savings goals are set by top management in conjunction with the board of directors. Budget owners, (the department managers responsible for budget results), are asked to prepare the budgets with these assumptions in mind.

This top down approach can lead to lack of buy-in by the budget owners if the targets are perceived to be unrealistic. This can degrade into a counterproductive culture where the budget owners exaggerate to justify higher costs and skim over unnecessary costs to protect their bottom-line goals. To appease the company's board, top management may force new savings targets upon the budget owners which further reduces buy-in and degrades the budget process.

Another limitation with traditional budgeting is that it tends to dive no lower than the P&L line item level since this is usually the lowest level of detail produced from accounting reports and discussed in budget review meetings. Deeper knowledge as to what drives costs is left up to the budget owners' discretion. At the very least this can create a lack of consistency in the preparation process and jeopardizes the integrity of the budget as a result.

This lack of emphasis on what drives costs is one of the largest weaknesses in the traditional budgeting process. Cost drivers are what create the costs that show up on the P&L. For example, warehouse payroll is usually a summation of the regular and overtime labor hours times the wage rates. Hours are certainly one driver of warehouse payroll. However, the cost driver can be peeled back further with labor reporting systems to separate direct productive hours from indirect or unproductive hours. It is possible to drill down further to identify the functions that make them up. Thus, warehouse payroll is a summation of several cost drivers, some of which are productive and some that are not. Simply projecting next year's warehouse payroll based on last year with minor adjustments for inflation glosses over many potential savings opportunities. Without solid understanding and good visibility to

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the cost drivers, the budget process will likely never reach its intended potential. Most successful companies that utilize a more traditional budgeting process usually also have adequate understanding of the key cost driver relationships. Otherwise they wouldn't be successful. The point here is that the traditional budget process can lose the connection to these formulas over time simply because they are secondary within the process.

Finally, traditional budgeting is becoming less resilient in the fast-paced business environment of today. Next year is guaranteed to be much different than last year. Growth comes in entering new markets, acquiring new customers, and adopting new technology. A budgeting process that can adapt quickly is imperative.

Why consider a bottom-up process?

Zero based budgeting (ZBB) means the budgeting process starts at zero. Also called bottom up budgeting, you systematically build your budget from zero by continually answering the question "what is needed to perform this business." If your warehouse stores pallets of soap, you start with whatever knowledge or projections you have as to how many pallets of soap you expect to store and handle during the budget period. Then answer the question, "what is needed to perform this business?" How many labor and equipment hours are needed? How many indirect hours do I need for breaks and sanitation, etc.? How many hours to I need to plan for training? How many overtime hours should I plan for? What is the wage cost associated with these hours? How much space do I need to store in the agreed upon configuration? How much does the space and storage equipment cost? These details can be an important factor in understanding where cost savings opportunities are hiding. In the bottom up approach, they gain visibility and therefore generate debate on whether they should be included or not.

This bottom up approach requires that you take into consideration the elements that drive the cost. Thus, the cost driver's relationship to the total cost is primary and visible. If prepared with budget owner involvement, they are more likely to be embraced at the level where the execution of the business happens. Deeper acceptance can occur throughout the levels of the organization along with alignment. Budget discussions become more focused on what actions can be taken toward improvements rather than the nuances of protecting one's personal budget.

There is no question that this approach is harder work, but mostly in the first year of implementation when the budget team needs to define the cost driver relationships. Accounting systems today are more robust with supportive analytics. Spreadsheet technology, now expanded to include big data tools, has evolved tremendously. And, many of these tools are linked to accounting systems allowing not only detailed output reporting but also accepting input feeds. Thus, the cost driver relationships can not only be defined, they can be automated at very detailed levels providing not only improved accuracy in budgeting process but easier and less time-consuming changes in future years budgeting. Even if the business changes significantly, the cost relationships will likely provide an infrastructure adaptable to support the cost profile of the new business.

The bottom up budget process has a greater chance of becoming embedded in the company's culture in a contributory way. Since the budget implementors played a key role in the development of the cost relationships they not only understand them, they believe in them. As they move through the budget year and adapt to changes that impact performance, they will learn to explain those variances to budgets more readily. The entire organization gets focused and aligned more quickly on bottom line problem solving.

Conclusion

Understanding your warehouse's operating costs at the most detailed levels offers the greatest opportunity for bottom line improvement and flexibility. This also enables greater understanding of where profits are truly happening.

There are six steps to success in the bottom up budgeting process:

① Top down support is crucial to commit the necessary resources and to drive the budgeting philosophy though the organization. Budget leadership should include a partnering with corporate finance in the strategy development to ensure ownership throughout the organization.

② Establish a cross functional budget team and allow enough time for the initial defining of key cost driver relationships and data sources.

③ Your budget team should include not just finance/accounting and operations but support departments such as engineering and IT.

④ Top management should be willing to redesign metrics and incentives to align with the new budgeting philosophy.

⑤ To insure alignment of the organization, consider incentivizing the budget process and/or the implementation.

⑥ Expand the budget review process to enable more robust variance explanation as well as solution and action discussions.

Bottom up Zero-Based budget processes are making a comeback with advances in technology in accounting systems, spreadsheet and big data software which are now linked. Still ZBB is not for faint of heart. If you go down this path you must do so with full commitment and a realization that there will be some hard work. The outcomes can be well worth the investment. You will gain a much deeper understanding of how and where the warehousing activity contributes to the bottom-line.

Now semi-retired after a multi-decade career with Illinois-based DSC Logistics, Rick Emerson is currently handling consulting engagements all over the US. Rick leveraged his MBA in Finance to grow DSC's finance department, building customer profitability reporting systems and providing operations analysis. He is a past president of the Columbus Roundtable of Council of Supply Chain Management Professionals (CSCMP) and can be contacted at: rick@emersonsupplychainconsulting.com.

KEN'S COMMENTS

A better mousetrap for the driver shortage?

Press reports have stimulated a great deal of unjustified excitement about solving the shortage of talent by creating self driving trucks. The fact is that most members of the public have little or no confidence in most of the technological approaches.

Peloton Technology is the first one we have seen that may win the confidence of both the trucking industry and the public. It controls a platoon of trucks, with a conventional vehicle and driver in the front vehicle. Right now, the company suggests a platoon of just two trucks, even though a greater number should be practical. The driver in the front vehicle has full control over the other vehicles in the platoon. In addition to conventional manual controls, there is a radar that detects and reacts to troubles ahead. It reacts faster than a human, and it sees further ahead. A pair of trucks are closer together than would be safe with conventional controls, and this reduces wind resistance and creates better fuel economy for all vehicles. We predict that the platoon technology is likely to be the first automation control to be accepted by both regulators and trucking operators.

Interviewing caution signs

Here are several signs that the person you are interviewing may not be a good fit:

- *Lack of focus*. A candidate who is long-winded and goes off on tangents is probably showing signs of disorganization.
- *Limited eye contact*. This could be a sign of disinterest, or of something to hide.
- *Gaps in work history*. A resume or a narrative that shows gaps may indicate a problem with the previous employer. Complaints about past employers are also a sign of trouble.
- *Failing to ask questions*. A strong candidate will ask good questions about the job details. Failure to do this may show lack of attention to detail.
- *Grandstanding*. Interviewees who constantly keep the spotlight on themselves may not be good team players.

Top interview questions to ask

- How do you plan and organize your work? Describe how you do so in a specific situation.
- Tell me about the most difficult customer you have dealt with. How did you handle this?
- What is your process for working through a very difficult decision?
- Have you ever had to set aside your own priorities for the good of the team?
- Tell me about a situation where you had numerous demands on your time. How did you resolve it?

WAREHOUSING TIPS

Disposing of old pallets

There are three things that users do with aging or excess pallets: repair, resell, or grind up.

Research shows that 95% of them are being recycled instead of ground up. Pallets that are destroyed are converted to wood chips that are used for mulch, biofuel, or animal bedding.

Recycling has increased in popularity because brokers now make it easy for warehouse operators to participate. The buyer may park a trailer at a user site and allow that operator to gradually fill the trailer as surplus pallets are identified. Logistics costs dictate that brokers will not collect pallets beyond a 100 mile radius. Therefore, users located too far from a recycler may find it necessary to grind up all of their used pallets.

Pallet disposal is complicated by the use of wood that is chemically treated to eradicate invasive insects. Some pallet manufacturers use heat instead of chemicals, and this eliminates the issue entirely.

Vendors of plastic pallets justify their cost by describing a much longer life. Orbis, a producer of plastic pallets, claims that their product survives an average of 200 repetitions, compared with only 11 for a wood pallet.

The right way to measure the labor market

If you ask anyone about the talent shortage, they are likely to cite the national unemployment rate (today around 4%) and observe that everybody who wants a job already has one.

However, there are two ways to measure employment. The unemployment rate records only those people who are actively hunting for a job and unable to find one. The other measure is called the labor force participation rate. It is defined as a measure of the active portion of the economy's labor force. In other words, it refers to the number of people who are either employed or are actively looking for work.

At the end of January, that number was only 63.2%. The other 37% are either unemployed, or for some reason they are not looking for work. Perhaps they have a physical handicap and are demoralized. Or they may have retired because they feel they can no longer find a job.

The participation rate has averaged 63% between 1950 and 2018. It's all time high of 67% was reached in 2000, and a record low of 58% in 1954.

This suggests that the sensible solution to the talent shortage is to attract some of those people in the nearly 30% who aren't working and apparently not looking.

The feedback fallacy

By Marcus Buckingham and Ashley Goodall, *Harvard Business Review,* April 2019, pg. 92.

If you are concerned about finding better ways to manage and retain talent, this article merits close study. For years, managers have been told to praise and/or criticize everything their employees do. There are better ways to help employees excel. Telling people what we think of their performance is not the best way to help them excel. In fact, criticism can hinder development. We aren't the reliable raters of other people's performance that we think we are. Criticism may inhibit the brain's ability to learn. Managers can't "correct" a person's way to excellence. Positive feedback is the only kind that may be useful.

Telling people how ***you*** think they should improve actually hinders learning. Helping colleagues excel is facilitated by the language you use in discussing their performance. Here are some examples of language that should and should not be used.

INSTEAD OF	TRY
Here's what you should do	Here's what I would do
Here's where you need to improve	Here's what worked best for me, and here's why
You need to improve your communication skills	Here's exactly where you started to lose me
You need to be more responsive	When I don't hear from you, I worry that we're not on the same page
You lack strategic thinking	I'm struggling to understand your plan

We humans do not do well when someone tells us where we stand, how good we really are, and what we must do to fix ourselves. We excel only when people who care about us tell us what they experience and what they feel and in particular when they see something within *us* that really works.

Automatic data capture suppliers

By B. McCrea, *Modern Materials Handling*, November 2018, pg. 38.

The most striking thing about this listing of the top 20 suppliers of automatic data capture devices is the concentration of the marketplace. Over half revenues come from just two suppliers, Zebra Technologies and Honeywell. Both of these companies have more than one brand.

When it comes to returns, retail is winning, but at what cost?

By Ayal Latz, *Parcel*, February 2019, pg. 20.

Returns are nothing new in retail. But the volume growth is worthy of note. Today's online shopper returns product about 25 to 30% of the time. That is nearly triple the return rate for items purchased in a brick and mortar store. Some customer service representatives are trained in "save the sale" techniques. Sometimes the customer just needs advice on the best way to use the product. Extending the return window will sometimes allow the customers to change their minds and keep the item.

Pressure builds

By Patrick Burnson, *Logistics Management*, January 2019, pg. 21

Prices are going up, and uncertainty is the primary cause. The trade war creates the risk of a sharp drop off in world trade growth. Political uncertainties exist in many parts of the world. Energy markets are uncertain. In trucking, increasing wages and insurance costs have eroded profits. The result is higher rates on both truckload and LTL. Parcel carriers are also raising prices. While the writer does not mention warehousing, it seems likely that the cost of new construction will cause operators to raise their prices.

AMRs and AGVs

By Ben Ames, *DC Velocity*, December 2018, pg. 36.

Automated guided vehicles (AGVs) have been around for decades, while the autonomous mobile robots (or AMR) is a relatively new product. Most of us have trouble explaining the difference, and many of the products have misleading labels. The author explains the differences this way: the AGV requires external guidance, electric wires, magnets, tape or reflectors. Changing its path can be time-consuming. By contrast, the AMR is outfitted with software and intelligent sensors that enable it to navigate its own path around the distribution center. Today, the difference between the two has become blurred.

Get it together

By Tom Gresham, *Inbound Logistics*, January 2019, pg. 255.

Warehouse management systems (WMS) have been around longer than transportation management systems (TMS). Today, most users have both. This article traces the progress in creating an integrated system. The integrated system will tell the operator when new inventory is arriving, or when existing stock is set to be shipped. The integrated system will also ensure that product to be shipped has been picked and is ready to go.