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**CONSULTING
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Microsoft Dynamics ERP

Brown, Smith Wallace Consulting White Paper

Knowledge, Insight, Power:
*Increasing Industrial Distribution Profitability through
Segmenting Customers, Suppliers and Products*

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EXECUTIVE SUMMARY

Industrial Distributors must always use every advantage to improve operations, reduce costs and ultimately increase returns for stakeholders. Organizations that have access to and are willing to make better use of specific ERP applications can integrate the concepts of metrics and segmentation into the business for outsized results.

An important element in management theory is the simple concept: "If you cannot measure it, you cannot manage it." By examining how to make information more visible to the distributor, it is possible to increase their ability to take charge of and manage their environment.

Once the metrics are available, then the use of Segmentation becomes a viable option to better manage the assets of an organization. Using measurements of "value" and profitability" it is possible to divide groups (customers, suppliers, and products) into subcategories which can be better managed to provide the greatest benefit to the operation. Industrial distributors can use this concept to provide an objective basis for increasing the return on all assets.

For many Industrial distributors, the greatest hurdle will be learning how to develop, track and report the information hidden in their automation systems. Information collected and stored within a modern and properly configured ERP system combined with applications (such as Business Intelligence) can be used to fine tune pricing, inventory, purchasing and customer service levels based on objective measures of value and contribution to profitability.

Companies who make more effective operational decisions based on metrics and segmentation can outperform the competition in all aspects of business.

INTRODUCTION

There are unprecedented challenges in the current economic situation for industrial distributors. In order to survive, significant changes in management and operations will be necessary. The good news is that there are a number of business techniques utilizing modern ERP applications that have been defined in research, then tested and proved in practice by leading organizations. These experiences provide a road map for industrial distributors of all sizes and technical capabilities. Industrial distributors can take advantage of these methods with lower risk than the leaders, but with substantial upside.

There are four basic assumptions that are necessary to set the stage to obtain the maximum results from the implementation of the concepts presented in this paper.

1. Industrial distributors can make more effective use of automation through the implementation and integration of management tools available from many modern ERP application providers.
2. The proper use of metrics will allow groups to be segmented into manageable units which will present opportunities to obtain greater returns from products, suppliers, and customers.
3. It is not necessary to treat every trading partner or product equally.
4. Unequal treatment will yield greater returns on invested capital, effort, and training.

It is also worth noting that some ERP systems may not be capable of easily retrieving and massaging the appropriate collected data. The processes described in this paper require a sufficiently sophisticated set of applications capable of retrieving data captured at different points in time, from different areas of the ERP applications and must be able to bring together (for export or reporting), non-traditional information.



SEGMENTATION AS A BUSINESS PROCESS

Segmentation is a process of dividing groups into subgroups which can be better managed and deployed. The three major groupings to be discussed in this paper are: Customers, Vendors or Suppliers, and Products

Successful segmentation first requires an understanding of the metrics that reflect the health and direction of the various aspects of business. It is a standard business adage that you can only manage something you can measure. It is easy to understand sales or other parameters that are easily retrieved from the application systems. It is more difficult to measure "customer satisfaction" as that is not a number in the financial reporting application.

We need to step back to review the definitions to be used here. Data is the raw material of metrics. These are the sales numbers, line item detail and other data entered into the computer during the daily action of operating the business. All of this data is collected and stored electronically, in a way that is easy to process through the standard transactions of the business.

When these data elements are organized and displayed or printed, they become information. Information is something that staff and management can read and react to. A list of outstanding accounts receivable allows one to follow up on any customers that are late paying their invoices.

As the simple reports are used, procedures are developed and the reports modified to support those procedures. Following the same example, the A/R list may be sorted by due date in groups of 30 / 60 / 90 days or more past due. One procedure may be to refuse additional credit to anyone in the 90 day plus report while still trying to collect all outstanding amounts; restrict the additional credit allowed to anyone in the 60 day list; and just call to inquire on the 30 day list. This process turns information into "intelligence" or actionable metrics.

The highest level is reached when a process becomes institutionalized, then one has achieved "corporate wisdom." The down side to corporate wisdom is that companies only reluctantly recognize when the old wisdom is no longer working. People are often afraid to change from "the way we have always done it."

A second concept based on the world of metrics is that managers get paid for only one thing. That is to move the numbers. It is therefore imperative that the organization agree on the following requirements prior to starting on any process which will rely on the new metrics.

- 1. What the metric represents:** This may be "contribution to gross profit" which can be measured on a line item basis or an average order basis, or a product basis, or a vendor basis. It may be a measure of shipping errors sorted by shift and an error reason code. Whatever the definition, everyone must agree on what it is.
- 2. How the metric is created:** This is a detail definition of where the numbers come from and the calculations used to derive the final metric. All persons responsible for the results need to understand and agree to the techniques used or they will not trust or use the metric. It is important to allow input from the line staff into how the measurement is arrived at.
- 3. Where we are:** There must be a starting point. In many cases, the metrics will be new to the organization, so a short time may be necessary to accumulate some history, to develop an accurate picture of the current situation.
- 4. Where we want to be:** For every metric, there needs to be a REALISTIC goal. For example, it might be great to have zero shipping errors in a billion dollar per year distribution center, but that may not be realistic. It may be realistic to expect that less than 0.1% of all line items shipped will be returned for any reason. (Some may come back due to customer ordering error.)
- 5. Time frames:** In order to be able to manage, there may need to be intermediary points on the way to the ultimate goal. Using the shipping example, a short term goal of less than 2% errors within 6 months may be set. 18 months may be the agreed to time frame to reach the 0.1% goal. All time frames must be accepted by the team responsible for meeting the goal. These timeframes cannot be imposed. If they are considered impossible, all of the potential benefits may be lost.



6. Approved resources: The team given responsibility for the goal must be able to request the resources they believe are required in order to meet the goals. Resources may include a need for additional handheld devices, a more accurate scale (part of a quality shipping process), or additional people. Again, without the proper tools and resources, the team may give up before they start. This is not a blank check, but a negotiated agreement between management and those responsible for reaching the goal.

Once the basics are agreed upon, it is time to determine what metrics should be used that will provide the greatest benefit, in the least time, utilizing the least resources and minimizing any risk. That is a tall order and may not be accomplished every time, but it should be the goal.

Given the requirements defined above, it is important to determine the metrics that will help improve operations in terms of customers, products, and suppliers. There are no “one right” answers, but there are some common themes seen among companies utilizing the concepts.

“Contribution to gross margin” is a common measure. It requires some simple “Activity Based Costing” (ABC). The company must be able to measure (or closely approximate) the actual cost to process an order; to complete a purchase; provide customer support and other regular operations. Once the costs are defined, it is possible to calculate the contribution to gross margin and determine a ranking of customers, products and/or suppliers.

Rankings are important to the workings of segmentation. Many distributors first learned about segmentation when setting up early inventory systems. There were A, B, C, and D inventory items. In many cases, the ranking was based on “turns.” This then drove the calculations of how much inventory to maintain and how often to order. Companies got better at understanding the causes and effects of different models and were able to refine their calculations. As a result, the investment in inventory was reduced and the freed up cash could be used for other purposes.

In its simplest form, the rankings discussed here provide a foundation for understanding the principles, but do not necessarily define specific opportunities for any given company. Management needs to work with their trusted advisors to identify the appropriate metrics, segmentation, and differentiation to obtain the greatest benefit.

One of the first lessons of segmentation is that not all groups need to be treated the same. Companies can offer rewards, discounts, greater sales emphasis, perks, and more business to those parties who, by their actions, become more important to the operation. For this discussion, there are three definitions that must be accepted.

1. A good customer is one that generates a profit;
2. A good product is one that generates a positive contribution to gross margin; and
3. A good supplier is one, who through their actions, helps the enterprise succeed.

For example, customers who are part of a segment defined as: “the top 20%,” should not be treated the same as a small volume customer whose contribution falls in the lowest 10% of customers (and is probably negative). Anything that can be done to correct the latter’s status is worthwhile. If they cannot be moved into profitability, then they may need to be “fired” unless there is some overriding reason to allow the status quo to continue.

To many, this appears to be unfair. Salespeople will want all of their customers to be treated as if they were in the top group due to “competitive” pressure. Vendors expect every distributor to work hard to promote their products and will expect equal treatment for all of their lines. Of course that is not good business, but many companies are unable to differentiate customers, products and suppliers at a sufficient level of detail. They are usually unaware of the value these top partners provide or the added benefits that can be used to gain competitive advantage. It is the ability to treat one group significantly better than another which will create the competition to become part of that group. It is what allows resources to be directed to the greatest good for the company.



If we continue with the example above, companies in that top 20% may be treated to special pricing, special promotions, special events, and extra services. A large volume customer who is not treated as such will complain to their salesperson that as a big customer they deserve the same or better treatment. It will take training and discipline so that the sales force will understand the ramifications of less profitable customers and work with them to increase their margins (or other measures) so they are part of the top group. Once the culture changes, there can be a positive competition to get all of one's major accounts into the "platinum" group.

This competition is good for the enterprise. It will focus the sales people on what makes a good customer. It is not just volume (although that may have a major impact). It includes all of the ways a customer uses limited resources when they interface with the company. Some of the common metrics include average days to pay, number of returns, special services, extra training, and all other benefits that require resources which (if accurately calculated) will reduce the contribution to gross margin. Once the sales force understands the drivers, they will do what is necessary to take care of the customers who count the most.

It is also necessary to understand that in a multi cultural, multi national environment that not all segmentations need be or should be the same across international borders. Individual customs, mores, and regulations work against a single standard segmentation process no matter how logical or desired. Understanding geographic, political, and cultural differences is essential for segmentation to deliver the potential that is possible.

Due to these known differences, the discussion that follows should be understood to work within a homogeneous cultural area. Where possible, it should be extended to cover as much territory as possible. However, do not dismiss cultural differences. They are critical to success in many areas of the world.

CUSTOMERS:

The bell curve is a standard statistical concept that works for most large groups. Following is a simple division of the customer base that might work for small to medium sized companies. Larger firms may need to make a first level division of customers based on other parameters. For example, they may be by country of origin or there may be different groups for OEM customers separate from MRO customers.

The minimal segments are "best customers" (top 10 to 15% measured by contribution to gross margin), "profitable customers" (customers with a positive contribution to gross margin), and the "bottom customers" or "probationary" (those who do not have a positive gross margin contribution).

This last group is made up of two subgroups. The first are "prospects" or potentially profitable customers (new customers or those that are growing or can be projected to become profitable in some agreed upon time frame). The second subgroup are the "should be fired or changed" customers who are not making a positive contribution to gross margin and probably will not in the foreseeable future.

There are ways to potentially make this later group profitable. Eliminate sales commissions by forcing them to order online or through a service desk. Then, require a credit card at the time of order for the full amount (no invoicing means no bad debt or collections for outstanding charges – all of which save significant dollars).

Best customers are not necessarily the ones who spend the most money, but are the most profitable. By using activity based costing (as defined above), it is possible to calculate contribution to net margin for any customer. Then the customer base can be forced ranked from top to bottom.



Frequently, there is value in using metrics to define a Pain Factor (PF) for customers. Those who require the most handholding, are always late paying, require lots of special services, and provide little or no gross margin contribution need to have their pricing increased. In some firms, a PF is assigned to every customer. A scale of .95 to 2.0 is often used. The best customers get the lowest PF. When pricing an order, bid, or special purchase, the best price is multiplied by the PF to arrive at the selling price. A very high PF may mean that customer will pay double the amount of the best customer. If the person goes somewhere else for their products, it is OK as they are not profitable. On the other hand, if they stay and pay the higher price, they become a good customer.

Since it is common to eliminate commissions for the customers in the lowest group, management may have to change some of the rules to drive desired behavior. For example, if one of the goals is to generate new customers, then a bonus may be paid for all new customers. Then another bonus may be paid if, and when the new customer moves from probationary to profitable – at which time they start to generate commission dollars to the salesperson.

SUPPLIERS:

The bell curve for suppliers is significantly different. There are frequently fewer choices for some products and even a nominally poor supplier is better than none at all. “Great suppliers” are at the top and are real partners. “Adequate suppliers” are those that will help out, but are not willing to go the extra mile. “Bottom suppliers” should be replaced if possible. As noted, this may not be possible and the company will have to work hard to maintain margins and customers under less than ideal circumstances.

Each supplier needs to be rated on a number of factors. Usually included are on time deliveries, quality of product (lack of customer complaints or freight claims), accuracy of billing, added value services such as training, participation in distributor events, value of co-op dollars, etc. Additional metrics should include lead generation, integration of application systems, and support for “ship and debit” programs. The bottom line is a distributor needs to get the right quantity of the right product delivered at the right time, without a need to inspect on receipt, packaged properly and at a fair price.

Real partners make it easy to do business with them. They help to maintain optimal inventory levels, they provide pricing assistance for special bids for large orders, and they are available to assist with client issues that may arise. This top group may provide special services such as VMI (Vendor Managed Inventory), collaborative forecasting, and transparency into their production so inventory availability can be projected and accurately planned for specific customer needs.

At the other extreme we find suppliers who are always late, cannot seem to get their billing correct, and are always having to fix problems. In cases like this, it may actually be better to not offer a product rather than have to deal with the problems associated with a less than desirable supplier. Also, in special situations, it may be possible to purchase certain products from jobbers or other middlemen who take on the burden of dealing with less than desirable suppliers. Giving up margin to reduce other costs is obvious only if you have the data and information necessary to do the proper calculations. Better decisions lead to better profits.

Commodities are a special situation. Where there are many suppliers available, the industrial distributor is in charge and can demand specific service levels. Just be careful, a “too good” price for a poor product may be more costly than you initially think. Most quality customers understand the cost of getting a quality product every time.



PRODUCTS:

As with customers and suppliers, products have their own bell curve. They are rated on ease of sale, exclusivity, follow on sales (especially consumables), and market recognition. They can be evaluated by contribution to gross margin as well as many intangible metrics.

Understanding the proper “product” metrics can often lead to better managed sales. Usually, sales people take the easiest route to make their numbers. Once product value to the company can be defined, it is possible to change commission structures and other incentives to encourage more sales from products that yield the best results for the company, not just the best commission for the sales force.

Pricing is one of the sales parameters that can be managed much better with segmentation. It is important to know which customers are buying which products. Each will have their major purchases which they watch very closely. These items are bid and then purchased for an extended period of time under contract. Other products the same customer buys are usually much less sensitive to price. Convenience is much more important. This provides an opportunity to increase contribution for the less sensitive product and for the customer.

There are many similar combinations. OEM product buys may have to be extremely competitive, but ancillary items may not have to be competitive at all. The same is true of MRO customers. The primary repair parts and general material in the “crib” will have to be bid carefully. Once accepted, it is easier to add additional non MRO products that may be needed at much higher margins. It is all a matter of knowing the numbers.

An easy example is to make more money on consumables. Usually these are considered commodity products and therefore have the most price competition and sensitivity. Sales will drop prices any chance they can to gain higher volume, often without higher contribution.

One simple change would be to link the consumable to the tool that uses it. By combining the products, it is possible to charge a premium for the commodity. For example, if the industrial distributor sells automatic nailing guns and the associated nails, it is common to offer a discount on the gun if the customer purchases a minimum number of nails. The combined income is higher than if the two products were sold separately. In some cases, distributors will even loan the guns at no cost, but require service contracts for maintenance on the loaned equipment and a minimum number of nails per period. This has the added benefit of supporting a service capability which can yield greater contributions to margin than the underlying equipment sale.

Timely and accurate metrics are necessary in order to properly link product and services into groups which will yield higher returns. Once done, it has the additional advantage of removing raw price as the only negotiating point for sales. Now they are selling service and support which can have a higher perceived value.



A CASE STUDY

(based on customer segmentation that worked to decrease costs, increase revenues and profits, without negatively affecting customer satisfaction.)

The distributor provided new and used equipment (which they refurbished and warranted) to a wide range of users across the country. They owned a single warehouse in the Midwest of the United States. The products were considered commodities and could be recycled (after inspection, cleaning, testing and correction of problems) from previous users. There were a significant number of small competitors in the business who generally kept prices at a very low margin. Not every part was available from every supplier all of the time.

At the company in question, sales were up slightly, but profits were down for the first time in their history. The company was at a loss as to how to proceed.

A diagnostic was performed using basic ABC (Activity Based Costing – where costs were assigned to every process in the customer facing procedures including all steps from order entry to shipping, through invoicing and collection). This allowed the company to better understand the potential distribution of customers in the sales process measured by gross margin contribution.

When the analysis was completed, the company found that the traditional expectation that the top 20% of the customers would provide 80% of the profit was incorrect. The 80/20 rule turned out to be wrong.

The top 20% of the customers turned out to be contributing 117% of the profit. A simplistic approach would be to fire the bottom 80%. Of course that is not possible or even desirable. The ability to sell larger volumes had benefits in purchasing and the negotiation of other services such as freight rates.

The real questions was “how to make the bottom group profitable” without losing all of their business? There was not an easy solution. After much discussion, it was decided to do an experiment on a segment of the business representing the lowest 10% of customers based on Gross Margin Contribution.

The following changes were recommended. First, the customers would no longer have a dedicated sales person assigned to them and any sales would not generate commissions. That created a revolt from the sales force who suggested that their customers in the group would soon be top performers. The problem was settled by modifying the commission rule so that commissions could not be earned on customers in this group until they rose above the bottom 20%. The salespeople quickly relented. These customers would only be allowed to place orders through the internet or by calling into the general customer service desk.

Rule number two was that such customers could only buy what was in stock, no special orders, and no backorders. Working small orders to find product had a very high cost.

The third rule was that all orders had to be paid for by credit card only. There would be no billing and no terms.

Fourth, all product was sent by standard shipping. No special shipping instructions, carriers, packaging or even collect shipments would be allowed.

Finally, all prices were raised 15%.

The Sales force predicted the company would lose all of the customers in the bottom group. Management accepted that the customers might be lost, but since they were sure that these customers were not profitable, it was OK if they left.



After six months, the results surprised some people. Not one customer was lost. Interviews provided information which explained the value of segmentation. It turned out that most of the customers were happy not to have to call the sales force for orders. That process took longer than they wanted to spend “chatting” with the sales people over the phone.

More importantly, they only bought from the firm because product was in stock. If something was not available, they would have to go elsewhere anyway. Most orders were reactionary and not bought for future needs, but for immediate use.

The credit card requirements turned out to be a desired benefit for the ordering organization as they earned frequent flyer/guest/buyer points that the boss was glad to earn. The standard shipping was fine with everyone. The big surprise was the pricing did not become a problem. Customers told the interviewers that they bought infrequently and the most important issue was availability of the product they wanted. The extra cost was still less than the value the buyer placed on his or her own time to find and price an alternative supplier.

At the end of the experiment, segmentation allowed the company to move the bottom 10% of customers from unprofitable to very profitable. At the end of the experiment, they all agreed with the new definition that stated: a good customer is one they made a profit on.

CONCLUSION

In the case study above, the distributor was able to define different levels of service and servicing based on the value of a customer segment to the company as a whole. This changed the dynamic of the customer interaction with the distributor and ultimately improved their relationships.

The sales people were given time to focus on improving returns from existing customers and encouraged to find new ones. The combined effect was both greater sales and greater profits.

The success of segmentation requires that a company be willing to treat different groups differently. That is not always as easy as it sounds. This will require management input, commitment, and follow through.

Just as important is the requirement for application systems that are capable of and implemented to collect, store, retrieve, and convert data into information and ultimately corporate wisdom. Not every system that is in use will be up to the task. Even if it is, historically, most distributors do not use many of the capabilities they have paid for.

Any organization reading this paper is capable of gaining great financial advantages through the use of segmentation. All they need is a desire to succeed, willingness to change the way they have always done things, and a system integrator or partner willing to help them find the information locked in their databases.



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Steve Epner founded the Brown Smith Wallace Consulting Group in 1976 (It was originally called the User Group, Inc.). Steve is an instructor at Saint Louis University and part of the Center for Supply Chain Management Studies. He has lectured at the University of Industrial Distribution, and at Arizona State University for the Certified Professional Manufacturers Representative program. Steve has a Bachelor of Science in Computer Science (1970) and a Master of Science from the College of Technology (2005) from Purdue University.

ABOUT BROWN SMITH WALLACE CONSULTING

The Brown Smith Wallace Consulting Group has been serving the distribution community for more than 20 years through the publication of various Software Guides, an online evaluation center and resource center at www.software4distributors.com, and assisting companies who need help selecting the best software packages for their business and maximizing benefits from their investment.

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