MARKETPLACE SYNERGIES

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PART I

One of the most important issues facing managers is to increase returns from their Existing Operations without having to rely on costly and risky new Emerging Activities. According to MIT re-search, 30% of any firm's business transactions lose money, but that such losses are more than offset by a few areas of high profitability.

In SFAS 142, FASB allows synergies that a marketplace participant would reasonably take into account in determining the Fair Value of a Reporting Unit. This article, based on the work of Jonathan Byrnes of MIT, discusses how management can realize such Market-place Synergies by reducing, even eliminating the loss-making portions of a business's Existing Operations, while at the same time consolidating its position with its best customers.

In case after case, an overall improvement of more than 25% has been obtained by management culling money-losing activities and improving the business mix; the capital expenditures required are usually negligible and the risks nominal. To operate a business on budget, and with products or services "just as good as the competition's" is simply not sufficient in our time.

In most companies, all members of management are aware of the over-all profitability, but few firms have the procedures necessary to systematically manage profits on a day-to-day basis. Each department, Sales, Marketing, R&D, Production, etc. is responsible for an important component of the annual budget and tracks its progress rigorously, but in most organizations, nobody, except the CEO, and, in some instances, a few other very senior executives, has the broad overview and responsibility for managing the interaction of those activities, which would enable them to minimize the assets employed and maximize their return.

It is rarely totally clear why this happens. For example, both the sales and productions groups can be on budget, but if the desired growth is coming from various additional small purchases, the established gross margins may be reduced by increased distribution costs. Under such circumstances, from time to time, orders could be out-of-stock and additional inventory has to be brought in. As a result, profits could be below expectation, because many inefficiencies have become "part of the system". With some simple "tweaking", small order accounts can be converted from losses to profits.

The same issues arise again and again across many industries. In the telephone business, wholesalers as well as the smaller guys pursue high-volume customers; yet volume is no guarantee of profit. While some make it big and are extremely profitable, quite a few involve substantial losses. The latter are often either early adopters of new technology or "complainers"; both categories re-quire an inordinate degree of customer service. Early adopters are important in establishing new services, and supporting them is normally a good investment; complainers just impede profits. The conventional solution is to get rid of them, but a better one is to make them profitable by automating much of their needed assistance.

Management fads come and go. A few years ago, "process management" was hot with consultants reorganizing product development pro-cesses, order taking processes, manufacturing processes, cash cycle processes, etc. Nobody talked about the profit process; as usual, this was unseen and unmanaged.

Some companies get it right, and Dell is a good example; everyone knows about its make-to-order system, but few are aware of its day-to-day demand management process. Although Dell has a very fast assembly cycle, like all other PC makers, it depends on suppliers, which have much longer component order times. That limits what Dell can build at any particular moment. Dell has therefore adopted "sell what we have" as their credo. Order takers' screens show what configurations are buildable that day, and they are given incentives to steer customers toward them - even to the extent of discounting available expensive options rather than having an "inventory short" situation. With this system, Dell continuously manages profits.

Dell's pricing also quickly adjusts to real-time demands. Most PC prices tend to be stable for a particular configuration, with periodic downward adjustments. Dell's vary frequently, as the company changes its specialities to balance supply and demand.

Sir Brian Pitman, former Chairman and CEO of Lloyds Bank TBS of London, one of the largest financial institutions in Europe, has said:

"One of the most difficult things in building a better business is learning what to divest."

To this end, an interesting exercise is for the senior managers of each major department (sales, operations, finance etc.) to write down five significant customers who should not be sold to, five products that should not be carried, and five services that should not be provided. In most organizations, the individual lists would be different, but nearly every company has a good number of unprofitable accounts, products and services.

Determining which customers, products and services don't fit is a complex process; effectively it consists of two questions: "what fits?" and "fits what?" The first concentrates on customers, pro-

ducts and transactions, while the second requires examining the company's internal processes and how its products reach its markets. According to Mr. Byrnes, these questions can be answered by the three key elements he believes are needed to maximize profits:

- Profit maps show which accounts, products, and transactions fit the business model and are profitable
- Profit levers are elements of the business model that can be adjusted to turn "bad" customers into "good" ones
- Profit management refers to the organizational procedures by which the company aligns its day-to-day activities with its business model.

Profit Maps

This process has five stages, of which the first two relate to the profit map, which is a stratification of customers, products, services, and transactions by profitability. This is followed by three further stages, including an analysis of the key profit levers. It forms the basis for improving earnings through profit management.

Unit Cost Functions

The first stage is to gather a task force of sales, operations and finance staff. Their job is to establish what determines the business's expenses; for example, for a trucking company, it would be the routes served. From this they go on to develop Unit Cost Functions, showing how much each activity costs.

An initial important decision is to clarify the degree of accuracy to be aimed for. Some managers have spent huge amounts on elaborate activity-based costing systems, in which, alas, all too often the process becomes the project; as a result, in a number of cases, the system is abandoned as being too time-consuming before it can be effective and give rise to actions that improve the bottom line.

Cost Allocations

Simple measures are usually sufficient. Allocating all warehousing, picking, packing, shipping and receiving costs, including wages, burden and occupancy on the basis of the total number of shipments, both in and out, is normally satisfactory; in the same way, dividing total sales costs, excluding commissions, by the number of entries (orders, multiplied by the average products on each) will give a useful cost per transaction.

Inventory can be handled using a carrying cost rate of, say, 2% a month. This may be applied over varying holding periods, such as "A" items - two weeks, "B" - four weeks, "C" - eight weeks, "D" - 13 weeks, "E" - 26 weeks and "F" - 52 weeks. Transportation costs can also be allotted by simple rules based on customer location (region, or distance from a distribution center). With the kind of software that is available today, such schematics are not too difficult to prepare.

The objective is to have a reasonably accurate picture of how the costs relate to the major profitgenerating activities of the business's sales, purchases, manufacturing, shipping, billing, collections and service. For convenience, it may be done on a contribution margin basis, with central costs, such as marketing, R&D, administration and corporate overhead, all excluding interest, being separately allocated as percentages of sales.

The most important results will usually become very clear and a profitability picture quickly emerge; once this is done, it is not necessary to fine-tune the system for greater accuracy, unless specific information is needed to support a particular planned action.

Profitability Database

The second stage is to construct a profitability database; this will contain significant information on all orders shipped in a sample period of up to six months. The data required is: customers, products, services, revenues and gross margins by type, using standard costs adjusted for unfavorable variances. Each transaction's contribution to Operating Profits is then determined by de-ducting the appropriate Unit Cost Functions.

It is important to allocate all costs, except for those relating to non-operating and financial activities, but including corporate overhead, for two reasons:

- 1. Every cost is considered when determining if a major function should be altered, and
- 2. The analysis ties directly to the Operating Profit line of the Income Statement, improving credibility and the accuracy of the projections.

This process will yield a database of transactions, showing the Re-venues, Gross Profit and Operating Profit for each; it can be analyzed by customer, account, product and order profitability, and will show where the big profits and losses occur. The database can also be used to project the effect of changing various functions.

Profit Levers

To see the effect of profit levers, it is necessary to "model" the customers. This is done in the third stage. For this, one large and one small customer are selected in each key market segment, and so are fast-moving and slow-moving items from each significant pro-duct line. In general, there will be ten to twelve representative situations to be modeled in spread sheets.

Modelling Customers

For each customer, management should look methodically at the pro-fit drivers, revenues, margins and costs for the different pro-ducts. To do this, various alternate configurations should be tried. These will include a number of "what ifs", such as the previously mentioned profit levers or changes to orders, sales, or service intervals. In addition, experiments should be made with both price levels and price mechanisms, as well as varying the product mix and developing substitution

programs (shipping similar things one has, to replace out of stock items). All those can provide valuable information for profit improvement.

The model can show potential profit levers, such as easily made changes in elements (e.g. order pattern) of the business and their potential effect. The planned profit levers should be discussed with the customers concerned to obtain feedback. A major advantage of the modelling/feedback process is that it gives senior management a set of real examples, which may be used to convince their colleagues of the importance of the process.

Project the Business

The fourth stage is to expand the conclusions gained through the models to the whole business. This is best done by dividing it into clusters that are similar to each modeled customer or product. This should show where big profits or losses occur and the impact of the proposed profit levers. Such a picture of current profits and potential improvements will suggest some further ways of improving profits.

Possible Decisions

After analyzing account profitability, the first thing many firms do is to try hard for general cost reductions, which is helpful, but does nothing to change the profit mix. That can only be achieved by changes to the business model.

An early profit lever should be forceful action to retain highly profitable customers; this is often done by ensuring flawless service, including priority on available capacity.

A second profit lever is a new pricing policy - not an overall in-crease, but "unbundling", so that charges are related to costs. This is an elementary principle that has been consistently over-looked by many business people. Examples of unbundling would be handling customer service through a 1-900 number rather than being "free" as part of the purchase price. Another example would be reducing delivery times to three days from one day. The objective is to improve the order pattern in marginal parts of the business.

A third is offering forecast bonuses, where a customer, who fore-casts its needs a month in advance, is given a special rebate, provided that their purchases are within 10% of the forecast. There is an additional charge for higher and lower volumes. A good example would be Hiram Walker, who successfully adheres to this principle.

A fourth is to give unprofitable customers the choice of paying more or accepting less service. In this respect, Mr. Byrnes quotes the CEO of a major service company:

"Before exiting, give them a chance to pay higher prices or modify the profit levers. We did exactly that. We knew our profitability was eroding. Through analysis, we found a business segment where we were losing money. Profit analysis allowed us to determine what changes would be required to generate acceptable returns. The underlying issue was not pricing - it was order pattern, order size, and delivery requirements. Before exiting the segment, we told our customers what we needed in order to continue servicing them. To our pleasure, they agreed to make the changes, and we saw a quantum improvement in profitability in six months."

A fifth is to change the customer relationship to one where risks and rewards are shared; the buyer receives a steady flow of goods as needed, resulting in smaller inventories and better use of capital, while the supplier gets constant equipment utilization. If additional needs arise at peak times, such customers are often given priority on available capacity, which in a seasonal business can be crucial.

A sixth and very important profit lever is to phase out the parts of the business that cannot easily be made profitable. In this respect, Sir Brian Pitman said:

"Getting rid of unprofitable products, getting rid of unprofitable customers, getting out of unprofitable markets are some of the most effective means of improving returns to shareholders - but they are also some of the most difficult things to get people to face up to."

"If we don't get out of underperforming businesses, we won't have the resources to invest in the things that will guarantee us a profitable future."

That method is now being followed by a number of enterprises; there are the prime examples of the suffering airlines, some oil companies have pulled out of certain States, and banks have found some services to be totally unprofitable and discontinued them.

Profit Management

Continued periodic reviews of account and product profitability is necessary to ensure that a profit oriented attitude is permanently built into a firm's processes. One method is to use the sales force merely to establish customer relationships and pricing; day-to-day involvement would be handled through direct contacts between operations personnel and the customers. This allows improved sales effectiveness and, over time, a reduction in personnel.

Institutionalize the Process

The fifth stage is to institutionalize the process by repeating the analysis every six months or so. As the database and models have been set up, subsequent analyses should require much less time.

The process itself builds teamwork and eventually should become a new way of looking at the business. At the same time, the complete profit mapping, profit levers and profit management processes should become part of any new account qualification.

To do this, training is required to ensure that all sales staff, operations and customer service understand the profit drivers, and that they manage account relationships for maximum gain. Training sessions should be in small groups with members from all relevant departments participating. They are likely to be very interactive, with lots of "what would you do if?" examples and quizzes.

From Financial Information to Action

As profitability improves, new opportunities are constantly created. "The better you get, the better you can get." The service company CEO mentioned above is quoted by Mr. Byrnes on his experience with profit mapping:

"Financial systems often do not have the information that you need. If they did, the problems would have been solved long ago. To be truly effective, you need to create a cross-functional team that understands how the business operates. This will allow the conversion of financial information into management information which, through analysis, will lead to action."

After introducing such a program according to Mr. Byrnes, one manager said:

"At first, the customers thought I was the bad guy. Now, it's very rewarding. The hard feelings went away. Before, customer meetings were about price increases; now, they're about cost reductions. We start every meeting with a business re-view of cost takeout's, and only adjust prices if necessary."

PART II

Part I of this presentation, which expanded on the work of Jonathan Byrnes of MIT, discussed Profit Mapping and how to implement it relatively easily to assist management in improving earnings.

This part concentrates on another means of increasing profits: customer operating partnerships; those consists of combining the activities of the vendor and customer in an integrated supply chain. A good example would be providing almost the same item, such as a mattress, with specific brand names for different customers. This offers several advantages:

1. Gaining market share even in highly penetrated and profitable accounts by apparent exclusivity;

- 2. Obtaining a strategic position as a differentiated supplier, even for commodity products subject to price competition;
- 3. Direct relationships with value-oriented customer executives, rather than with pricesensitive purchasing managers;
- 4. Creating a highly desirable competitive situation, in which the customer will remain loyal, if only to avoid significant switching costs.

Most leading companies, in addition to the just-in-time delivery system that became customary a few years ago, are sharply reducing their supplier bases, in some cases by 50% or more. Good customers prefer broader relationships with fewer, more capable vendors. Price, although an important component, is only part of the package that offers reliable delivery and assists in controlling inventory levels. Clever managers will eagerly take an opportunity to develop such arrangements.

Managers who fail to strive for such operating partnerships with their best customers run the risk of losing part or all of such business to competitors who offer this service, and with it, a significant portion of their profits may also fade away.

Although customer operating partnerships are different from ordinary supplier relations, most managers can initiate vendor-managed inventory arrangements with high-profit customers. However, it is crucial to understand that appropriate systems must be put in place.

Changes May Be Required

It must be made clear that in crafting these arrangements, one size does not fit all. For such a program to be successful, managers must carefully segment the firm's accounts, as intensive relation-ships can only be developed with a fairly small number of customers. Target accounts should be systematically qualified, and multi-tiered account relationships considered. Senior managers have to understand that parallel changes are required in both sales and operations processes.

The key to customer partnerships is a rather old fashioned concept: service; although this is one of the most important aspects of profitability, it is probably the least implemented. In nearly all cases and fields of endeavour, customer service can be improved at no extra cost by re-examining how customer service is defined, measured, and managed.

For many companies, customer service swings like a pendulum, almost like a flavour-of-the month; in one quarter, the focus is on lowering costs and reducing inventories, which means fill rates (percentage of orders shipped on time) tend to fall and customers be-come unhappy. To solve this in the subsequent quarter, more pro-duct is brought in, thereby increasing costs. This inevitably leads to some customers wondering about reliability and stability, which in turn will cause them to pad delivery requests.

Three Steps to Profitable Customer Service

Managers must find the right balance between escalating costs and eliminating problematic service. In general, actions with the highest profit potential do not relate to balancing service standards and costs, but rather to giving each customer an appropriate level of service. Once suitable order cycle

times are established for different sets of customers and products, management can pro-vide on-time deliveries at a reasonable cost.

Differentiated service intervals can be set by a three-step process:

- Understand customers' real (unpadded) needs
- Adjust service to the customer's standing
- Align the supply chain with the service intervals.

Although at first glance implementing those three steps appears to be a horrendous amount of work, it becomes more manageable using modern technology, where one template can be modified to suit most cases; also, the process should be applied only to major accounts.

Understand Customers' Real Needs

This sounds simple enough - just ask them, but that instantly brings up two problems: first, a customer may not be totally aware of its own real needs, especially where purchases are not made by the operating staff. Second, most customers will build in padding as far as deliveries are concerned, to protect themselves from the possibility of a vendor causing delays; this is a likely scenario, if delivery promises have not been fulfilled in the past.

All products require on-time delivery, but at different intervals. In a plant, some items move fast and are costly to store; those require rapid delivery, occasionally more than once a day. Other items, such as dry goods, can be shipped at longer intervals, as long as delivery is made when promised. Cans may be held longer than bananas, lawn mowers should not be stored beyond September, and computer chips are considered past their prime at age three months.

Therefore the first step to understanding real customer needs is to observe their product inventory and usage patterns, and, based on that, design appropriate delivery intervals geared to that particular establishment. While this originally requires a significant investment of time, the payoff in visibly improved service and reduced cost can be high.

Adjust Service Intervals to the Customer's Standing

All customers are not created equal, although many companies' distributions policies act as if they were. In most warehouses, the rule is "first come, first served," unless severe rationing of a crucial product is necessary; order systems are not normally set up to recognize or prioritize specific deliveries. This damages important customers with established sales. It can become a major problem when a low volume customer suddenly places a large order because its primary supplier is out of stock.

Order fulfilment and service measurement systems are not able to differentiate between important and intermittent customers, as in general, there is only a single implicit delivery commitment, such as three days from order. The standard service level measurement (proportion of orders shipped on time) is not affected by who gets the incomplete delivery; it can, however, have an impact on the firm's profitability, as many customers will not pay unless they have received the whole order; some even deduct a penalty.

In summary, managers have to make hard choices and to set, in advance, appropriate delivery intervals for different types of customers; at the same time, appropriate distribution and service measures should be developed for each group of products and customers.

Align the Supply Chain with the Service Interval

Once management has defined appropriate service intervals for different products and customers, it must align the company's supply chain with them to improve service and lower costs. The customer service matrix set out below is a helpful starting point.

CUSTOMERS			
P R O D	3-Day Interval	1 Day Interval	Core
U C T S	5-Day Interval	3-day Interval	Non- Core
	Non-Core	Core	

This allows a company's managers to integrate sales and marketing perspectives on products and customers with the supply chain capability of distribution and operations, and assigns appropriate intervals in working days to each quadrant. However, such planning must not totally eliminate lower level personal relationships.

Core Products/Core Customers

The core products/core customers ("core/core") quadrant represents important products ordered by major customers. Service intervals must be short because they generally keep minimal stock and risks from competitors are very high. Usually, a supplier will keep such items in a nearby local warehouse.

Core Products/Non-Core Customers

This quadrant causes the most trouble when a non-core customer, either an intermittent or small purchaser, orders core products. The salesman, in the expectation of establishing a permanent relationship, will act as an advocate, arguing that it represents an opportunity to "get a foot in the door." The problem is that giving critical products to non-core customers may disrupt their steady flow to core customers with loyal order patterns. In many instances, this is the reason why important customers end up receiving unsatisfactory service, and, in response, pad their delivery requirements.

The answer is to set longer, but reasonable service intervals for non-core customers. In the sample matrix, core customers receive one-day service, while the non-core get only three-day deliveries. This

allows a margin of time to ship in extra items for an unexpected demand. In most cases, non-core customers' orders can be fulfilled more rapidly, but the extra time ensures that service levels for major customers will always be kept.

Core Customers/Non-Core Products

Some companies have high distribution costs due to inappropriate non-core product shipment intervals. In this quadrant, customers will accept a longer interval for non-critical products, because they keep ample safety stocks. Extra shipping time allows most inventory to be stored in a distribution center, and the local warehouses act as transit points. However, it is important to keep some local stock to respond to an unexpected crisis with a core customer.

Non-Core Customers/Non-Core Products

For this quadrant, service intervals should enable stock to come from a central warehouse and be long enough to allow priority for core customers when product supply gets tight.

Service Differentiation

The dilemma of customer service can be resolved by thinking care-fully about the customers' real requirements, the firm's relation-ships with them, and supply chain economics. Service differentiation can turn many unprofitable accounts and products around.

Setting appropriate service intervals for different customers and products creates three competitive advantages:

- 1. Service levels, especially for important products and major customers, will rise to highly desirable levels, improving relationships with the best customers.
- 2. Many customers will willingly accept, even prefer, flawless service at jointly-planned intervals over a competitors' irregular service levels.
- 3. The sales force can concentrate on moving customers to core status by obtaining higher volumes.

PART III – AN EXAMPLE OF A HOSPITAL SUPPLIER

In many communities, a hospital is a major employer and purchaser of a wide range of goods and services. This example, like the other parts of this presentation, is based on the work of Mr. Jonathan Byrnes of MIT, adapted to valuation analysts. It is based on the success of a major, national hospital supply company that was able to use customer-operating partnerships to achieve sales in-creases of over 30% in several highly penetrated and profitable accounts. It shows in detail the types of synergies marketplace participants could expect from the adoption of "best practices" in calculating Fair Value as required by SFAS 141, 142 and 144.

At one time, this particular company faced an increasingly untenable situation with most of its hospital customers. It manufactured and sold a variety of hospital supplies, but many categories had become

effectively commodities and subject to constant price wars. As an example, for a liter of an IV solution, a five-year contract could hinge on whether the quoted price was \$0.97 or \$1.03. Its sales rep's called on hospital pharmacists and purchasing staff, whose objective was to lower costs; they rarely met any executives.

Order patterns fluctuated erratically, causing significant inventory, service, and production problems; there were three reasons for this: first, nurses ordered infrequently, but in large quantities from the hospitals' stockrooms; second, although hospitals normally agreed to an order and delivery schedule, in practice, they placed orders continuously for next-day delivery; thirdly, "meet the quarter" sales drives were common, as operations managers were carefully controlling costs and keeping staff levels lean to maintain margins; therefore, they could not respond effectively to an inherently inefficient situation.

At one point, a number of hospitals asked the company to consider becoming a "master supplier" and funnel material from a variety of sources to the institution with a single monthly invoice. A small team was assembled to follow the flow of various supply items from the distribution center through the stockrooms to the actual patients at several large hospitals.

Once the team had developed a flow chart, it showed a disjointed supply channel. In its distribution center, the company received orders, picked the supplies, packed and shipped them and invoiced the hospital. There, the team saw a mirror image: orders were issued, boxes received and unpacked, the supplies put away and the invoices paid. In a third step, the nurses ordered from the stock-room and again put away the supplies.

Mapping product flow and measuring hospital operations showed that materials' management was cost efficient, but there were large pools of hidden costs in areas where the nurses doubled as stock boys. When the team discussed these findings, the hospital personnel was amazed at the true costs.

For example: the total cost of a "delivered" liter of IV fluid to a patient was about \$5.00, compared with the \$1.00 paid by the hospital. Of the other \$4.00, indirect hospital costs made up about half.

The company had tacitly defined its boundaries as a hospital's receiving area, but immediately saw an opportunity outside its traditional business. New communications and computer technologies gave it the capability to extend its activities far into the customers' operations, for mutual benefits.

The Stockless System

The team saw a great potential in joint hospital-company projects to eliminate redundant steps and inventory, and to alter picking, materials management, and information processing systems. Up to \$1.00 of the \$2.00 in indirect hospital costs could be eliminated, while providing substantially increased service levels.

After discussions with several hospitals, the team developed an initial operating-partnership model, the "Stockless System". Its first stage was to analyze each ward's product usage and specify the required stock. The second was for an on-site company employee to count the stock in each ward every few days and transmit this information to the warehouse. The third was for replenishment orders

to be packed into ward-specific containers and delivered directly to the site. The fourth stage was for the company employee, not the nurses, to put the stock away. Finally, the company invoiced the hospital weekly.

The Stockless System had a huge impact. It moved value creation activities to cover the whole extended supply chain, and enabled the company to shift its selling focus from the \$0.97 to \$1.03 price negotiation to mutual value creation on a larger scale. It generated a new competitive position for itself as a service oriented, rather than price differentiated supplier.

Great benefits

The Stockless System gave the company four strategic benefits.

Cost Reductions

Large cost reductions were achieved by both partners. The hospitals eliminated several steps in the supply chain and greatly reduced inventories. Valuable space was released and nurses freed up. The company gained large, unexpected operating benefits by eliminating erratic order patterns.

Sales Increases

The company's sales rose significantly, due to:

- 1. The new relationships between the nurses and the company's ward coordinators, who were warehouse crew, not sales rep's; and
- 2. Greatly improved service, which allowed sales rep's to focus on adding new products, rather than solving problems.

Management Relationships

Senior management was able to establish close working relations with their counterparts at the hospitals, because the system led to cost savings; the result was new joint business.

Competitive Advantage

The system enabled the company to secure large, more profitable accounts. Its operating-partnerships rested on four essential elements:

- 1. Customer confidence;
- 2. Demonstrated ability to perform;
- 3. Company commitment and resources; and
- 4. Joint end-to-end business understanding and operations-to-operations relationships.

Once the company had fully established this new way of doing business, its competitors found it difficult to muscle in.

Required Changes

The Stockless System inspired both the company and the hospitals to make significant changes in five areas.

Account Selection

Management realized early that customer relationships were crucial to success, but they had to be careful in their choice because customer-partnerships were very intense. Senior executives thoroughly screened and prioritized their customers according to their potential gains and operating fit.

Account Coordination

Previously, the sales reps were the primary link to the hospital, with operations personnel largely excluded. In the new relationship, multi-functional teams planned and developed the partnerships with important accounts. Once this process was underway, they invited customers to participate, so that, rather than being adversarial, account planning became a joint effort.

Selling the System

The process of selling an operating- partner-ship to a hospital was very different from the normal approach. Because a new customer-supplier relationship was involved, a CEO-to-CEO link was needed. The company made its first sale to a smaller hospital that was run by a particularly progressive CEO, and then brought others to view the "showcase." At one point, it assembled a focus group of hospital CEOs, and asked them for suggestions on how to market the system.

Operations

Alterations were needed in four operating areas. First, operating managers had to become involved in developing the system and estimating the gains. For this, they had to understand internal hospital processes as well as the hospital's staff. Second, the company had to learn to manage sensitive, scattered operations within hospitals. Third, the supply chain had to be re-structured to deliver top-notch service without additional cost; this required that the Stockless System's inventory be protected from the needs of the rest of the company, even from other large accounts. Fourth, the warehouse had to become more flexible to handle a dual-distribution system.

Management

Because the Stockless System represented a new way of doing business, management had to take the lead in developing more open relationships with customers. The operating-partnerships in-creased the risks because the relationships were more complex, the standards more stringent, and failure could mean the loss of a major account. Important changes were needed in management controls and sales incentives because the system eliminated quarter-end sales drives, and resulted in significant short-term reductions in shipments, as hospital inventories were drawn down; new incentives were required to encourage operations' involvement in the sales relationship.

Effect on the Company's Value

The introduction of the Stockless System by the hospital supply company led to two enhancements of its value: the first was larger profits, which came about through higher sales and maintained margins; the second was a lower Capitalization Rate as a result of less fluctuation in quarterly profits and demonstrated growth potential.

PART IV – AN INDUSTRIAL SUPPLY EXAMPLE

This is another case taken from Mr. Byrnes, a professor at MIT, that of a leading industrial supply company, illustrating the power of product-flow management. In his writing, he acknowledges the assistance of Roy Shapiro, a Harvard Business School professor, who developed and authored this study with him. This is another example of the type of synergies that market participants should take into account when calculating Fair Value according to SFAS 141, 142, and 144.

Profits from better Managing Product-Flows

An industrial supply company was faced with customer pressure for significant performance improvements and the apparent need to build several new facilities. Its directors authorized the VP, Operations, to undertake a "challenge everything" study. To look at the business in a new way, he shifted his focus from internal operations to how products flowed through the complete supply chain, which included major suppliers and important customers.

The data was surprising. End-users steadily consumed virtually all the company's high-volume products, with little day to day or week to week fluctuations, yet there was a surprisingly erratic pattern in the company's orders, forcing it to carry high inventories as well as excess manufacturing capacity, and to often to interrupt production schedules to accommodate unexpected peaks; the company's purchases were similarly affected.

When each customer in a representative region was analyzed, it was discovered that fluctuations by a few major buyers, who dominated the order patterns, were causing most of the problems. These large, infrequent orders created spikes, which had a domino effect on the other organizations in the supply chain. As end-user demand was steady, this was costly for everybody.

All links in the supply chain had been focusing on responding as efficiently as possible to a fundamentally illogical replenishment pattern, rather than on the underlying problem, but, because this lay between firms rather than within the company, it had not been noticed.

The Solution

The solution seemed startlingly simple: coordinate the supply chain, so that for the few large customers who accounted for most of the fluctuations, product would flow smoothly and steadily from beginning to end. A "standing order" arrangement was established with targeted purchasers to provide weekly deliveries of high-volume products. Quantities were reset by operations managers in periodic meetings, with contingency plans for increased quantities if unexpected needs arose.

This steadied the supply chain product flow, allowing the company to ship steadily; it could also pack items in a standard format that was easier for customers to receive and store, significantly reducing their costs and inventories. Because delivery patterns were now more predictable, the company was able to stabilize manufacturing schedules and commit to purchase materials on a "take or pay" basis, in return for significantly lower prices and supply certainty. Everyone gained significantly.

The financial impact was to cut the company's operating costs by over 35% and its inventories in half; it was spared a multi-million dollar expansion program, and out of stock situations dropped substantially. Logistics costs per unit also decreased due to more stable warehouse volumes, increased trans-shipments, and standardized work practices.

The company also found that its sales process was changing in unexpected ways: the new system freed sales rep's from having to deal with customer complaints, which had taken a substantial amount of their time, and allowed them to focus on selling. In newly created monthly review meetings between the company's operations staff and the customers' managements, trust and new relationships developed. The combination of increased focus on selling and the enhanced efficiency of product-flow led several large customers to increase their orders.

Why did it take so long?

Even though the company was known for its sophisticated systems and had a number of well-managed customers and suppliers, it took years for it to discover this deceptively simple, and seemingly obvious, solution; there are two questions:

- 1. Why did it take so long to recognize the problem? and
- 2. Why did the company succeed where a competitor failed?

The VP faced three issues common to product-flow management: first, there was no awareness of the root causes of the problem or the opportunity for improvement. Like most others, the company had measured performance in terms of cost efficiency and service levels in responding to customers' orders, rather than by its ability to create new efficiencies for all parties by altering order patterns. Manufacturing and distribution simply had taken these as a given, beyond their control, and optimized their responses. Previous operations' improvement efforts had been conducted within such a traditional framework. The possibility of dramatically improving performance through supply chain management simply did not surface as an issue at either the company, its customers, or its suppliers, more than 500 entities in all.

Second, despite the company's sophisticated systems, it lacked the data needed to understand the inter-company product-flows. New data had to be gathered and cost models built to analyze inter-company order patterns and their costs. Customers and suppliers had similar blind spots.

Third, implementing a standing order system required organizational changes. Regional managers had to meet periodically with key customers to review service records and adjust order levels; warehouses had to be reconfigured and sometimes downsized; products had to be tracked beyond the company; long-term purchase arrangements with contingency backups had to be developed, and new manufacturing schedules and procedures were needed to achieve efficiencies based on the more stable demand.

It is not surprising that a major competitor failed attempting a similar system, because it approached the arrangement as a marketing rather than an operating program; this had three fatal flaws:

1. It failed to isolate the customers and products that had relatively steady consumption, but erratic order patterns, and instead tried to serve everybody on an equal level;

- 2. It neglected to establish frequent meetings with customers' managements, and had no contingency mechanisms to monitor and adjust delivery levels, or to quickly react to unforeseen problems; and
- 3. It did not reconfigure its distribution facilities and reorganize its manufacturing and supply processes to reduce costs.

Powerful Profit Lever

Product-flow management is a powerful profit lever that can increase earnings while raising customer service levels. To succeed, managers must identify the points of opportunity and put in place a process to systematically alter day-to-day activities.

In Part II, we wrote about the importance of matching delivery intervals to real product needs and customer relations. Product-flow management relates closely to this, because the most costly product-flow variances occur in core products sold to core customers; order pattern variance is one of the primary causes of the need for high inventories and costly excess capacity.

By developing a strong operations-to-operations relationship with core customers, product-flow can reduce costs, even with tight delivery schedules. This creates a win-win situation for both, the firm and its best customers, provides a natural opportunity to develop strong working relationships and bonds at the operating level, and should lead to higher sales from these accounts.