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Breakthrough Sales & Operations Planning: How we developed the process.

By Dick Ling and Andy Coldrick

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Ling-Coldrick is a leading edge consulting partnership specializing in Breakthrough Sales and Operations Planning. Our mission is to provide external stimulus to initiate rapid implementation of Sales & Operations Planning.

Our Right to Left approach yields dramatic benefits within six months.

Increased profits

Improved cash flow

Reduced cost-to-serve

Improved customer service

Reduced inventory and work-in-process

Our approach forces breakthrough thinking by helping organizations focus on aligning their Sales and Operations Planning Process with their business agenda and strategic direction.

We help you assess the health of your S&OP process through our facilitated self-assessment.

We transfer our knowledge to you through customized education and coaching.

We help you create practical action plans that enable you to align your S&OP process to your business objectives.

Our strength lies in our ability; the breadth of our experience, our industry knowledge, success in small, medium, and large organizations all over the world, and our progressive attitude. We believe we add value through our clarity of thought in understanding your problems and developing solutions to enhance business success.

About the Authors

Dick Ling and Andy Coldrick have been collaborating on S&OP for 25 years. They are a very strong partnership and specialize in pushing the boundaries of Sales & Operations Planning. They help businesses all over the world to maximize S&OP's potential to generate more cash and increase profits. Dick created S&OP, and he and Andy are two of the leading thinkers and consultants on its evolution and advancement. They both now live in the USA and are working together even more closely. They assist clients with breakthrough success in implementing **Right to Left** S&OP.

They led the thinking on aligning the S&OP process to the strategic intent of the business and future portfolio. Before that they were the first to recognize that new product activity and financial links into traditional S&OP were treated as afterthoughts, but were not being truly integrated. They pioneered integration of these two pieces, and also created the Integrated Reconciliation step to explode the 'single number' myth, in vogue at the time. The importance of understanding change, assumption management, scenario planning all with a 'range of views' have reinforced management's need for information that built knowledge and knowhow, rather than data just supplying more and more numbers. This led to the discovery that breakthrough S&OP necessitates strong cross-functional leadership and behavior. Utilizing a "range of views" also saw the need to use a different process from the traditional demand/supply balancing model. During that time they encountered companies in complex environments. Clients in just North America implement S&OP in one very large country – the USA. Europe is dealing with a more complex picture having clusters of countries, and in many cases these clusters are combined into a region such as Europe, Africa and the Middle East. In the 1990's Europe and Asia regions were microcosms of the global picture. Dick and Andy pioneered the way to implement integrated S&OP in global, regional and country environments, from experience in Europe. Their ability to work anywhere in the world with multinationals built an unrivalled experience in helping businesses maximize the benefits of global S&OP, while understanding potential road blocks with different cultures, expectation and systems.

Working with small developing countries within a regional context, together with parallel experience in helping small independent businesses, gave them the insights necessary for a simplified S&OP approach, albeit a three step process.

They remain passionately committed to customizing S&OP for business environments. There are common principles and themes, but each successful S&OP user has its own uniqueness. Any successful business is striving to be different from its competition.

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1. Executive Summary

This article traces the evolution of Sales & Operations Planning (S&OP) from its inception in the late 1980's, where the primary objective was a medium to long-term stable production plan, to the 21st century, where several successful businesses are using it as a dynamic business performance management process enabling and tracking their progress against their future portfolio and strategic intent. These businesses are maximizing the potential of S&OP by increasing profits and generating cash.

The foundational benefits of improved customer service and lower working capital are still important, but today more advanced companies have built on a robust operational foundation and now use the latest view from S&OP to generate the quarterly forecast for corporate headquarters. These businesses no longer have annual budgeting as a separate exercise. They also demonstrate strong cross functional behavior throughout the organization and executives are focused on long term sustainability. They also excel in execution. A **monthly** business process tracking all these issues is mandatory in these times. There was a point when senior management would say to us "Why a monthly S&OP process?" Since the financial collapse of 2008 many executives have said if only we had a monthly S&OP process instead of a financial review once a quarter.

The evolution of S&OP, by examining it as a series of breakthroughs, has given us the knowledge of what is important. Moreover, by understanding the big picture we can learn the optimal way of successful implementation. S&OP evolving through time is shown (figure 1).

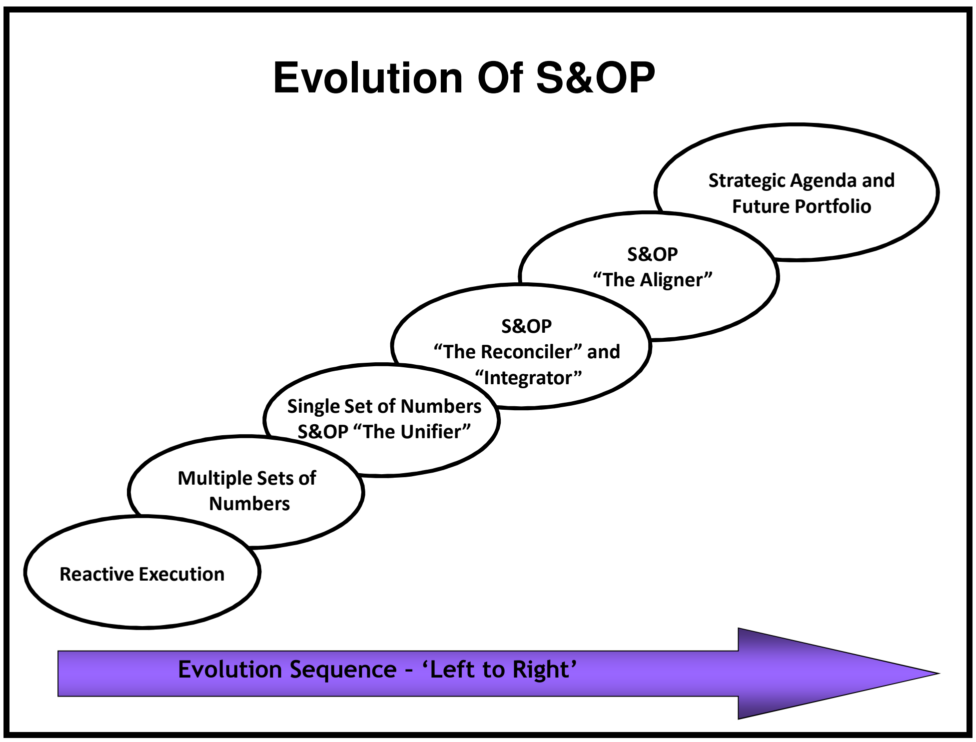

Fig.1

Evolution from multiple sets of numbers to an S&OP process aligned to the future business agenda has taken place over twenty years. Unfortunately, many practitioners have tried to implement S&OP in the same direction as its evolution - **Left to Right**. They believe their S&OP process will eventually align to the business and strategic agenda, but it usually takes far too long and senior management loses patience. More often than not the process becomes associated with one of the evolution steps, and stalls. A common problem is having an objective of a 'single set of numbers', whereas executive management wants to see a 'range – including highs and lows'. If a range is not provided they then treat S&OP as a side-show, and see S&OP 'The Unifier' as a false promise.

We believe that the powerful message in S&OP evolution is that you align the process to the strategic agenda and future portfolio from the outset. One of Peter Drucker's famous quotes is "the best way to predict the future is to create it". We show this in figure 2 where current reality is in the bottom left and the created future is in the top right.

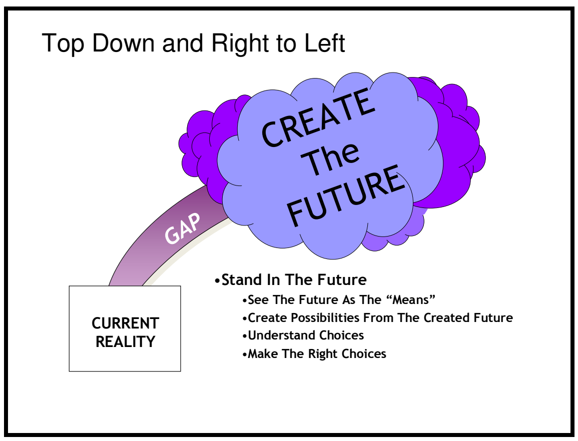

Fig 2

Senior management must stand in the future because they need to see the future as the means and not the end. The direction from current reality to the future is north easterly, and by standing in the future top management makes it clear that this is top down and implementation is therefore in a south westerly direction. From a process implementation viewpoint successful implementation is from right to left.

Senior management gets tired of hearing that "this needs top management commitment". Apparently every initiative needs top management commitment according to consultants. Is S&OP another one of these initiatives? The choice is yours. If senior management does not pick up the need to align the strategic agenda and future portfolio to the S&OP process, it will become the responsibility of people in reactive execution, notably demand managers or supply planners.

Our experience with many clients is that you can approach any S&OP implementation, improvement program or reimplementation, and achieve dramatic results within six months by utilizing our **Right to Left** breakthrough approach, which engages top management (figure. 3).

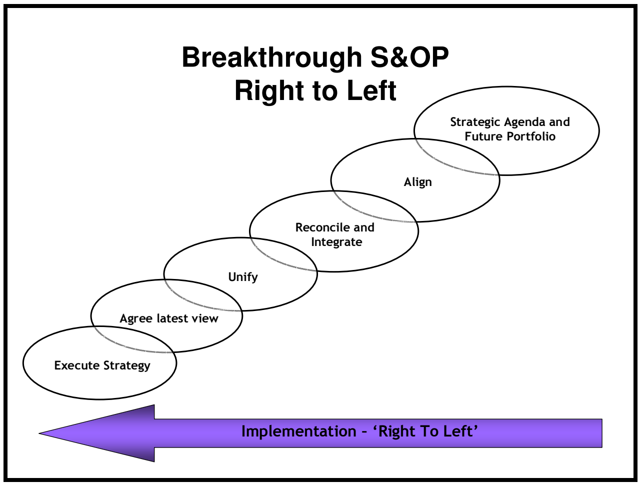

Fig.3

Whether it is "top down" or "right to left" as opposed to "bottom up" or "left to right", the difference between the two approaches is either quick success with the former, or a long drawn out disappointment with the latter.

Having aligned the process at the beginning to the strategic intent and future portfolio, we can reconcile the different views within the business to the future business agenda and sustainable success. The end result, achieved through cross functional behavior, is an agreed upon latest view over 18 to 24 months for both operational and business plans, and the ability to execute strategy.

During evolution we were attempting to unify first, then reconcile and finally align S&OP. You cannot unify unless you know what you are trying to accomplish. A common aim must be aligned to something. What? You align to strategic intent. We now know that the evolution sequence must be reversed to achieve successful implementation. We align the S&OP process to the strategic intent and future portfolio, and then reconcile different views. Finally unification is done through agreeing to the latest view of the future. **The most rapid and sure way to implement S&OP successfully is to implement from right to left.**

The following learning points from the evolution of Sales & Operations Planning are worthy of executive attention:

1. **Executive leadership:** The process should not be led by supply only. At the very least supply chain and finance should jointly lead the process, and this is appropriate in businesses following 'Cost Leadership'[1] as a strategy. In other cases direction of the process should come from sales & marketing; when the strategic intent of the business is 'Customer Relationships'[1] it should be sales led, and marketing should lead when a business follows 'Product/Service Differentiation'[1] Finance should always have a strong co-lead in the process because of their role in business planning, whatever the strategic intent. We reference the Harvard Business Review Book on Strategy chapter 3[1], because it represents the modern view of types of strategy. We do not include network effect strategy, sometimes called "strategy shaping" because examples of these businesses are exceptions rather than the rule. Ideally executives should champion the process, but in large

multinational companies this is not always easy. Senior management does not normally 'buy the process'; they 'buy the results'. However the process must be rigorous and disciplined so that the executive can have confidence in the integrity of the information. As a minimum the business should take care in selecting the leader of the Integrated Reconciliation. This person effectively becomes the COO of the S&OP process leaving the CEO to champion the implementation and lead the Senior Management Business Review (SMBR). This topic is dealt with more extensively in our second article titled, *Breakthrough Sales & Operations Planning: How you implement from* ***Right to Left***[2]***.***

2. **Importance of Finance**: Volume and value must be integrated in the medium to long-term view. Many businesses have separate processes for volume and financial forecasts.

3. **Roughly right vs. precisely wrong**: Obsession with extrapolation of detailed forecasts is unhealthy and will 'turn off' business management. 'Roughly right not precisely wrong' is the recommended approach. There must be an understanding of different ways of reducing and coping with uncertainty.

4. **New activities:** New activities must be integrated into demand / supply discussions from the outset.

5. **Knowledge vs. Data**: The key to success is to get a shared understanding of what the numbers in the latest view mean, rather than just debating the numbers. Achieving this insight requires a focus on assumption changes, risks and opportunities to understand different views and why there has been a change. 'Drowning in data, but starved of knowledge' are very important watchwords.

6. **Cross functional behavior**: The process must clearly 'join up' functions. There must be recognition that different views add value, give a richer understanding of trends and where the business is going. Cross functional behavior and executive leadership are of paramount importance. Corrective action must be identified since flawless execution in all functions is demanded. A functional silo culture where 'the person who shouts loudest wins' is detrimental to S&OP success; such organizations get stuck on a 'single set of numbers'.

7. **Benefits in Six Months**: Successful implementation is achieved by setting an aggressive schedule, focusing on fast results (in six months), and a commitment to **'learn by doing'**. **Right to left** implementation means that the first step is alignment to the executive management agenda. The second step is the recognition that different views add value, leading to a reconciliation process. An *agreed latest view* comes from reconciling these different views to the strategic intent and a valid operational plan.

8. **S&OP Aligned to Strategic Intent:** S&OP as the umbrella for operational excellence is a dangerous premise. Some think that operational excellence is a strategy, whereas it is a mandatory discipline for any business regardless of the strategy[3]. Michael Porter in his book "On Competition" in chapter 2 "What is Strategy" argues that the root of many problems is a failure to distinguish between Operational

Effectiveness and Strategy. Operational Effectiveness or Excellence is high impact in a business that is following Cost Leadership as a strategy, along with restructuring, lean, six sigma, etc, and in this case a single set of numbers is more appropriate as an outcome of S&OP. However many fast moving consumer goods, pharmaceutical and Hi Tech companies often follow different strategies such as 'Customer Relationships' or 'Product and Service Differentiation'. These businesses have difficulty with the tenet of a 'single set of numbers', because their rationale is high risk, innovation and uncertainty and they have a high incidence of new product introduction. These businesses need an S&OP process which copes with these issues. Scenario planning with ranges and documented assumptions are main agenda items, and the ability to cope with ambiguity is critical.

9. **Customized S&OP**: Beware of prescription and 'one size fits all'. Yes, the concept is applicable but S&OP has to be tailored to your business needs. The dimensions of values and behaviors, processes and resources must be understood. Our experience clearly shows that leadership, behavior change, data integrity, and simple integrated software are major issues to address, in insuring that your Sales and Operations Planning process delivers sustainable business results. Customization is essential when aligning to your strategic intent. Strategy involves differentiation and the S&OP process must be aligned to your strategic intent. Breakthrough results come by implementing from **Right to Left**.

Breakthrough Sales & Operations Planning: How we developed the process.

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2. Introduction

Sales & Operations Planning has been used extensively since its creation in the late 1980's. The process evolved during the 1990's and numerous companies have gained tangible business benefits in improved customer service and reduced inventories, and have used the process to facilitate growth and sustained profitability. Other organizations are struggling with supply chain planning collecting data for a monthly meeting, in which sales, marketing and finance are less than enthusiastic attendees.

This article, first in a series, traces the evolution of Sales & Operations Planning (S&OP), and suggests reasons why some companies have maximized the benefits while others have just become stuck in old paradigms. Our intent is that, by understanding the evolution, we provide you a context and frame of reference to allow you to identify where you are today and gain some insights in how to improve or change what you have. Evolution takes too long and does not guarantee success. Achievement of fast sustainable benefits is through a challenging plan, identifying behaviors, activities and functions that need to change so that we can align S&OP to the executive management agenda. For those who are just about to start an implementation, or re-implementation, we suggest taking the learning from the 1990's and insist on business leadership from the start and avoid the pain a supply driven process brings. Our **Right to Left** approach which we call *Breakthrough S&OP* is explained towards the end of this article in section 9.

The second Article in the series*, Breakthrough S&OP: How you Implement from **Right to Left***, shows how you drive the implementation from the strategic intent and the business agenda. These two articles go hand in hand. A third article deals with scaling the S&OP process to fit different environments i.e. large global

What's in a name?

What started out as 'Sales & Operations Planning' has taken many different forms, now being referred to by a multitude of names. These include: Integrated Business Planning, Integrated Business Management, Integrated Performance Management, Rolling Business Planning, Regional Business Management, and Sales Inventory and Operations Planning [SIOP] to name a few. Several organizations continue to use the phrase 'S&OP', although stages of maturity are quite different from company to company. Unfortunately for many who love renaming initiatives, a change in name does not guarantee a corresponding change in the underlying process, behaviors and results. We still call this 'Sales and Operations Planning'. Why? We have never seen an improvement in S&OP's potential in a business, by merely changing its name. Our work as educators, coaches and consultants has driven us to help companies maximize S&OP potential. Some still use S&OP for demand supply balancing; others use it as a powerful cross functional business process multinationals at one end of the spectrum, to small businesses(1m to 10m) and S&OP in developing countries on the other.

What is 'Sales and Operations Planning'?

Today we see Sales and Operations planning as a process for cross functional decision making. Ultimately the process enables a business to accomplish the monitoring, updating and executing its strategic intent using the monthly operating plan as a robust foundation. Through its evolution, however, it has taken different forms in different applications (See 'What's in a name?'), and in many cases fallen short of its full potential. It is a forward looking process with a minimum horizon of 18 months or 6 quarters, integrating and aligning strategic and tactical views and decisions, and directing operational planning and execution. It is not a short term scheduling tool with only a 4-6 month horizon. (figure 4)

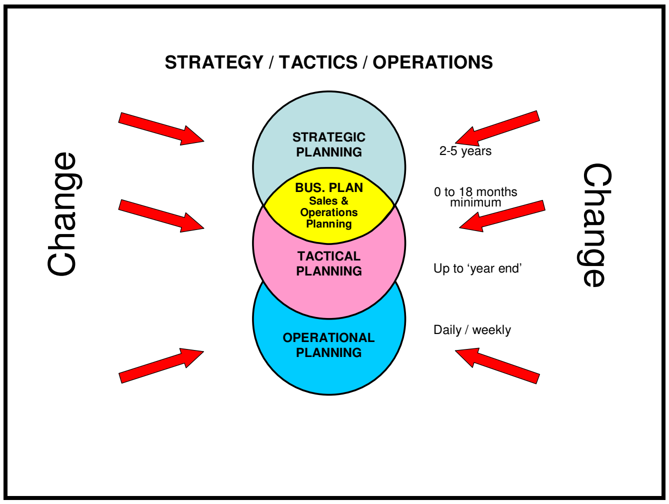


Fig 4

There are two key points in figure 4. Firstly, S&OP as a powerful decision making process has to be the driver of tactical and operational planning and execution, with the financial view from S&OP credibly supporting the business plan. Secondly, the planning horizon must be a minimum of 18 months to ensure that decisions are made about 'year end' in the context of the following year. A simple way of visualizing this is to see operational planning as the short term 'day-to-day' flawless execution. Tactical planning is about delivering 'this year's budget', and strategic planning is delivering 'future years' performance'. S&OP, a monthly process, looking both inwardly and outwardly enables changes in assumptions to be evaluated, and is used to monitor progress forward and update strategies when needed.

The principal focus of S&OP during the 1980's and 1990's was how to get a good operational foundation in place. This foundation provides the ability to evaluate demand and to ensure that sufficient resources are in place across the business to meet it. Changes are assessed monthly, and plans updated and communicated. The first impetus was provided by Dick Ling with the creation of S&OP, to which we now refer as 'Traditional Sales & Operations Planning'.

3. Traditional Sales & Operations Planning

S&OP was created in the late 1980's by Dick Ling (his book "Orchestrating Success[4]" co-authored with Walter Goddard was published in 1987). At the time Manufacturing Resource Planning (MRP II) was in vogue and S&OP started to be seen as a driver whose principal focus was to make MRPII work in a single manufacturing plant within a business.

At the time Sales & Operations Planning was seen as a breakthrough, because in many businesses annual business planning, sales planning and production planning were completely separate exercises. There were 'one-way hand offs' and massive disconnects; finance as the neutral function were often used as the referee of disputes between sales, marketing and manufacturing. Multiple sets of numbers existed and all improvements were functional and therefore disconnected. For example, an inventory reduction project to improve cash flow would be initiated by finance, and supported by manufacturing. Sales and marketing would make no contribution until customer service suffered. The inventory reduction project would then be followed by a 'Customer First' project led by sales, until inventory again, or the cost of complexity, became the focal point.

The premise of traditional S&OP is that customer service and inventory are 'resultants'. To effectively manage them we must manage the drivers, i.e. demand and supply.

Sales and Operations Planning was a breakthrough in that it forced sales, marketing and manufacturing to agree once a month to 'one set of numbers' for sales, production and inventory. Within the month there would be a sales planning meeting chaired by the sales director agreeing the volumes at family level, predicted for sale for the next 12-18 months, called 'demand planning'. The manufacturing director would then run a meeting called 'supply planning' to respond, using resource capacity management, with the corresponding production and inventory plans. This would be followed by a pre- S&OP meeting where sales, marketing and manufacturing *agreed with each other for one day in the month (in those days a major step forward!)*, to prepare for a management meeting with the G.M. /M.D. and other board

S&OP – The Manufacturing View of the World

Early versions of S&OP were driven by manufacturing to make Material Planning and Manufacturing Planning more stable. These manufacturing origins show through in many applications of 'S&OP' and are characterised in some telling ways, including:

•The timetable set around 'Supply Meetings' – representatives from sales, marketing and commercial having to attend a set of 'S&OP Meetings' established around manufacturing locations and planning routine, rather than category/range reviews, or customer and market driven events and calendars

•The view that 'Sales and Marketing' are one homogenous organisation with 'a view' – missing the very fact that sales and marketing have different drivers and objectives and potentially conflicting views that need to be understood and reconciled

•The obsession with a 'single set of numbers' – based on the naive belief that it is possible to create 'one number' that will represent all views of the business, and that all uncertainty can be eliminated to the degree that you can plan and control the future that rigidly through the entire planning horizon. This is a relic of what was called *Best Practice MRP ll*. At the time many people were fixed on the idea that S&OP was a new part of MRP ll, designed to give one number upon which MRP ll depended. In fact the truth was, and still is, that S&OP is the big picture, and MRP ii was merely the planning and execution piece. Now ERP provides the detailed planning and execution to support S&OP across the enterprise.

members in an S&OP meeting. Following the S&OP meeting, or just before, some reconciliation of volumes with financials would be done as a check against the budget. Is this revolutionary? No! It is merely 'organized common sense'. The process is shown (figure 5).

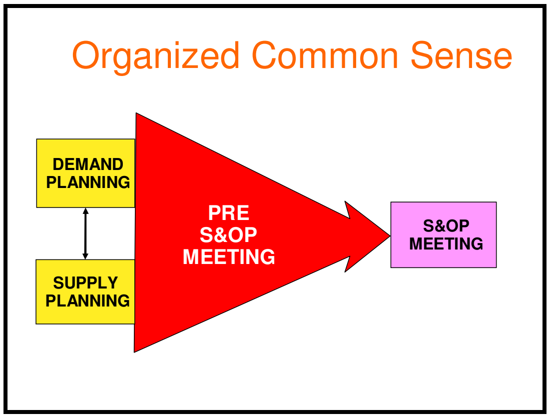


Fig 5

The focus on managing demand and supply as drivers (seeing inventory as a resultant) gave many businesses improved customer service and lower inventories. These operational benefits often stemmed from an attention to detail and the 'S&OP Spreadsheet' provided the data that helped to spot the results of independently managed events.

Many early applications of this focused on 'manufacturing views' of product families, rather than external views of the business e.g. channel or brand. An example of the output from traditional S&OP meetings for an assembled product is shown (figure 6).

Product Family Volume Plan

	PAST MONTHS				FUTURE MONTHS									
SALES	-3	-2	-1		1	2	3	4	5	6	7	8	9	ANN
PLANNED	1200	1200	1200		1200	1200	1200	1200	1200	1200	1200	1200	1200	14400
PREVIOUS	1211	1197	1200		1200	1200	1200	1200	1200	1200	1200	1200	1200	14408
ACT/PROJ	1211	1197	1257		1225	1250	1250	1250	1250	1250	1250	1250	1250	14890
DIFF	11	-3	57		25	50	50	50	50	50	50	50	50	490
CUM DIFF	11	8	65											
PRODUCTION														
PLANNED	1200	1200	1200		1200	1200	1200	1200	1200	1200	1200	1200	1200	14400
PREVIOUS	1195	1202	1200		1200	1200	1200	1200	1200	1200	1200	1200	1200	14397
ACT/PROJ	1195	1202	1197		1200	1200	1400	1250	1250	1250	1250	1250	1250	14894
DIFF	-5	2	-3		0	0	200	50	50	50	50	50	50	494
CUM DIFF	-5	-3	-6											
INVENTORY														
PLANNED	600	600	600		600	600	600	600	600	600	600	600	600	600
PREVIOUS	584	589	589		589	589	589	589	589	589	589	589	589	589
ACT/PROJ	584	589	529		504	454	604	604	604	604	604	604	604	604
DIFF	-16	-11	-71		-96	-146	4	4	4	4	4	4	4	4
COVER (WKS)	2.06	2.07	1.83		1.75	1.56	2.08	2.08	2.08	2.08	2.08	2.08	2.08	2.08

Fig. 6

During the late 1980's and early 1990's we saw many people struggling because they saw basic demand and supply planning as an end in itself. The 'attention to detail' and desire for stability that drove early benefits was pursued to extreme lengths, creating a new set of problems.

4. 'SOP the Unifier' - Traditional S&OP Challenged

Following the initial euphoria of 'getting control', enthusiasm waned and traditional S&OP started to be seen as a logistics project, merely demand and supply volume planning focused on 'year end' only, with too much detail (sku / pack level / line item forecasts going out for 12 months). The dream that 'S&OP was the Unifier' faded, and it started to be seen as a middle management logistics responsibility. Demand planners, often reporting into the supply organization, owned the numbers rather than sales and marketing management, and the process was designed not to cope with the impact of increased innovation and customer responsiveness that many organizations were driving. It appeared at the time that S&OP was only relevant in organizations with limited innovations, committed to a Cost Leadership strategy.

A 'single set of numbers' was a supply chain dream, but it was an obstacle to other functions. Sales and marketing and finance were more interested in a 'range', doing their own financial scenario planning in separate activities from supply. Executive management needs to manage uncertainties, probability, 'odds' on events planning, and ranges of numbers.

Without robust financial linking, volume forecasting became a lower priority than financial forecasting. Sales, marketing and general management were measured on financial results, and manufacturing and supply chain were measured on operational targets based on volume predictions, where new activities were not well forecast (figure 7).

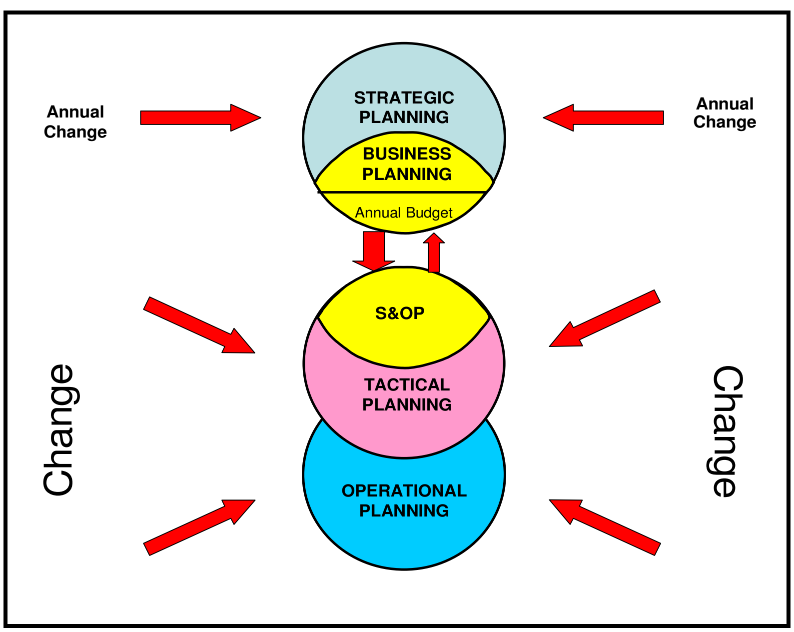


Fig 7

The two vertical arrows illustrate the point: whatever the output is from S&OP (thin upward arrow), the 'weight' carried by the budget number (thick downward arrow) takes precedence, overriding any decisions made in S&OP.

Because the operational number for the supply chain was lower in priority than the financial number, and was very often different, the S&OP meeting became the forum where supply people grumbled about forecast accuracy against their 'single set of numbers'- the impossible dream. It was becoming apparent that getting a single number from a pre-SOP meeting where people had their own functional agenda was virtually impossible. Very often the ones who shouted the loudest got their way, but if finance did not agree the number was questionable.

In fact this obsession with one number was seen as the Holy Grail and 'S&OP as the great Unifier' – the way to get a single number. Why? Because multiple sets of numbers create confusion. They do, but the antidote is not a single number**.** What is needed is an **agreed latest view** which comes as a result of **reconciliation of different views** (see next section S&OP as the Reconciler and Integrator). In a traditional pre-S&OP meeting in an organization with a silo culture, there was no recognition that different views add value – they were considered as an obstacle to a decision. In such organizations one can observe the politics. What is said in a meeting is influenced by functional positioning. It influences where and when things are said, by whom, to whom, against whom. It is impossible to harness all the ability and knowledge of all participants to obtain the optimal 'agreed latest view' in such an environment.

This culture is often reinforced by the A vs. B syndrome. The symptoms of this are polarity and argument around two different options, when creation of a third or fourth option may well be the best solution. Here verbal dexterity in support of one, or criticizing the other, absorbs all the talent and time. Often whoever is fastest on their feet with the best information, or examples in support, 'wins' for A vs. B – even if more considered thought would produce the opposite and conclude that B is better and even a solution where an undeveloped C or D would be better still.

Some reconciliation of different views must take place before there is agreement on what a number should be. **We should have seen that S&OP must be the great Reconciler before it could be a 'Unifier'.**

The early 1990's saw an additional complication, the advent of the 'single market' in Europe. This heralded the regional business concept, where the business unit or category, strategic marketing, finance and supply chain were to be managed regionally. Sales, tactical marketing and financial management of the legal entity were to be managed in the countries. This added complexity and ambiguity to the traditional S&OP process. Multiple sales and marketing units interfacing with multiple sourcing units raise questions. How many meetings do you have? Do you have a meeting in a sourcing unit or in the market or both? Should you have meetings or should you focus on an integrated process?

We know some people wedded to the traditional S&OP concept who religiously hold Executive S&OP meetings at their European plants, and ensure that sales and marketing attend monthly meetings at all the plants which supply their products. Imagine a sales director/manager who sells product supplied from 5 different plants in Europe! This poor soul wastes five days a month of precious time with customers by being trapped in some outdated S&OP concept.

S&OP not only requires a Reconciler – a Cross- functional Integrator is also mandatory. We created the term Integrated Reconciliation to describe a process that performs both functions.

5. S&OP the Reconciler and Integrator

With this background, and some early work on Europeanization with several multinational businesses, we developed a more robust model which is often called the Five Step Process. Since then the process has continued to evolve into a model that we use to frame the key steps of Sales and Operations Planning (figure 8).

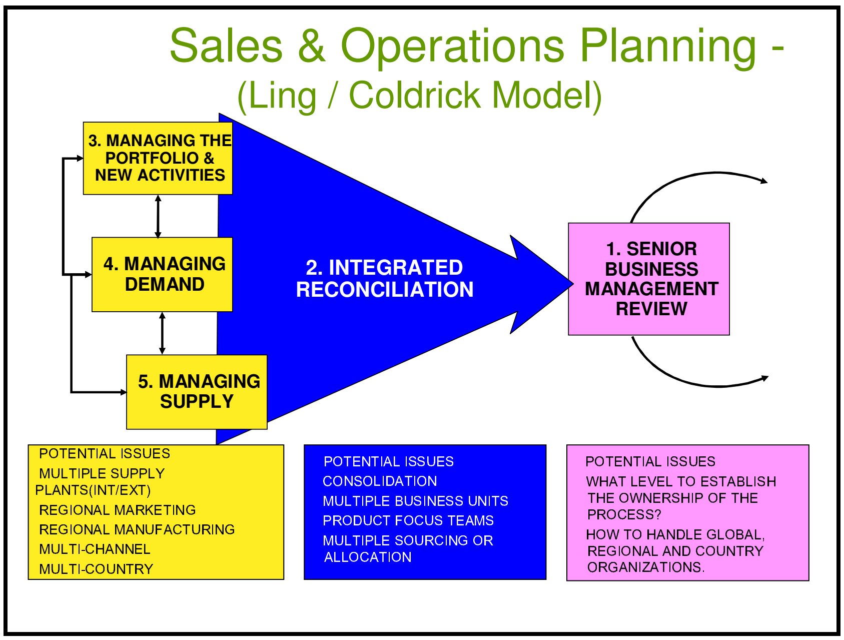


Fig 8

The relevance and significance of the five steps and how they must be integrated have been tested over the last decade. They have been adapted to meet the pressures of different business strategies, and handle the needs of different industry sectors within and beyond manufacturing, including retail and services. A number of key themes have emerged.

Integrated Reconciliation & Senior Business Management Review

The development of Integrated Reconciliation has highlighted the importance of financial involvement and leadership early in the process and has changed the agenda from a volume discussion to a business one. It is about reconciling different views and how they contribute to optimal profit. There is added value in discussing different views and the reasons for them. It increases the understanding of what the numbers mean which focuses the attention on the assumptions underpinning the numbers, with opportunities and vulnerabilities. The conversation is principally about what has changed since the last review and why. Without assumptions the conversation revolves around why the numbers have changed. When the focus changes from just numbers to assumptions, the need for marrying forecasting with foresight becomes even more apparent.

Integrated Reconciliation is the most crucial step in successful S&OP. Why? It is the vehicle which executives drive to resolve issues related to the strategic agenda. It is there to recognize potential difficulties in executing strategy. It also has a responsibility to discover new opportunities for profit, and make decisions or recommendations to senior management, as needed. It is also the translator for managing significant issues in portfolio and new activities, demand and supply.

These are some of the questions raised in Integrated Reconciliation:

I. What is the impact of integrating new activities; demand and supply on the business (not just supply chain)? What are the emerging issues and gaps? What are the opportunities and risks? You must have volume and value information and assumption changes to answer these questions. Understanding these questions leads to an imperative that finance is an integral part of all five steps, whereas in many examples of S&OP finance is added at the pre-S&OP meeting and the S&OP meeting.

II. What scenarios are important to make better decisions on the future?

III. What decisions should we make, and which ones should be escalated to the senior management review?

The step is not a meeting as such, but an iterative process run by a senior cross functional team in the business. They highlight key issues and decisions required for the senior management team. In fact, they determine the agenda for the Senior Business Management Review. Players in Integrated Reconciliation are the future executives in the business. Participation in this exercise is seen as a key training ground for the next generation of presidents and vice –presidents. This is fundamentally different from the pre-S&OP meeting in traditional S&OP, where the main focus was on volume and its impact on resources. Understanding Integrated Reconciliation has directed a broadening and changing of the scope of new activities, demand and supply management. Integrated Reconciliation as a process leads directly into the Senior Business Management Review, which focuses on understanding change, what is our current performance, what decisions are still outstanding, and what decisions have been made already in Integrated Reconciliation. The business agenda also raises further questions - are we on track with the business plan, and are we still on track with our strategic intent?

You will note that in this model, there is no such step as a pre-S&OP meeting or Executive S&OP meeting. Our thought is that the aligned and integrated five steps define the entire S&OP process, and we have deliberately omitted reference to an S&OP meeting. We have seen too many examples in large companies of *the S&OP meeting being the focus* ,and within large multinationals S&OP meetings were springing up everywhere by country, by cluster, by business unit, by manufacturing plant, etc. Renaming S&OP as Executive S&OP meeting only exacerbated the problem. Our view is that the Senior Business Management Review may be similar to a real Executive S&OP meeting; however, if this is preceded by a traditional pre-S&OP meeting the agenda would certainly be more operational. The agenda and discussion of a Senior Business Management Review is colored by how different the Integrated Reconciliation process is from the traditional pre-S&OP meeting.

The importance of Integrated Reconciliation and its necessary direction from the Senior Business Management Review led us to understand that the best approach to successful implementation is from **Right to Left** (See sections 10 and 11). Nick Hodges, CEO of London International Group was the catalyst for **Right to Left** thinking when he said to Andy "Let us discuss what I think we should get out of the Senior Management Review before we get involved in the other process steps". This is why we number the steps from R**ight to Left.** The first step in implementation must be the Senior Business Management Review. It directs the scope of the Integrated Reconciliation process and how it will work. This scope and agenda will also help senior management decide on the participants of the Integrated Reconciliation, and how they can communicate the strategic intent to members of step 3 (managing the portfolio and new activities), step 4 (managing demand) and step 5 (managing supply). Aligning S&OP to strategic intent and future portfolio is the first step of a **Right to Left** approach. These issues are discussed in section 10. Our experience is that the **Right to Left** approach is at the very heart of Breakthrough S&OP and guarantees success in 6 months, because it engages senior management's strategic agenda from the outset. The alternative is a traditional left to right approach (which is western style logic), where the steps are numbered from left to right and are implemented in that sequence i.e. step 1(new activities), step 2 (manage demand), step 3 (manage supply), step 4(integrated reconciliation) and step 5 (senior business management review).

Experience shows that this approach takes too long and there is no guarantee that the combination of steps 1-4 will ever relate to the priorities of the executive team. We find that this works only if the strategic focus is 'Cost Leadership'. We discuss this more in sections 9 and 10, but if the strategic intent is either 'Customer Relationships' or 'Product/Service Differentiation' not only is the left to right approach seriously flawed, but will disengage senior management completely.

Managing the Portfolio and New Activities

New activities have developed significantly over the last fifteen years. As with traditional S&OP in the '80's, the notion of integrating new product planning with supply and demand planning of the existing portfolio was something of a breakthrough, despite being common sense. With increasing focus on innovation and the use of 'stage and gate' decision processes and 'innovation funnel management', some companies took the opportunity to integrate these approaches that were emerging and developing in parallel with S&OP. Early attempts at integration often focused on the commercialization / introduction stage of the funnel. The aims were to ensure preparation for launch, phase-in / phase-out, and that cannibalization effects were understood, motivated by helping production not to be 'caught-out' when introducing a new product.

Progressive organizations, often those driving very aggressive innovation agendas, realized that connecting only the 'back-end' of the process missed opportunities to manage the innovation funnel in an integrated way.

The scope was also broadened in another direction by those who saw the need to manage new activities beyond the narrower definition of product. Although the list is different in every application, a common theme in opening up this step beyond just product is the identification of those activities that:

I. Have a significant impact on demand and / or supply (volume and value) and any other support resources.

II. Need to be managed across the business in a 'joined-up' way, with decisions driven through a structured review process.

III. Require visibility and management across a portfolio of activities, leading to better prioritization, resource allocation and decisions.

This redefinition from new product to new activities opened the scope outside of a 'business as usual' and in doing so opened up the appeal to a much broader audience in the business.

This changing context had a dramatic effect on the view and understanding of the demand and supply steps of the process.

Managing Demand

Demand Management including the accountability for forecasting has developed significantly. In the early years of S&OP, a lot of effort went into agreeing a volume forecast emphasizing a 'single set of numbers'. Demand forecasting was very often part of the supply organization, and forecast accuracy was seen as the principal measure rather than customer service. Some organizations even went as far as saying, "You did not forecast this, therefore we cannot make it!" obviously alienating sales and marketing. The thinking that sales and marketing form one homogeneous organization with 'a single view' of the numbers misses the fact that these two functions have different drivers and objectives.

By the mid 1990's, people realized the importance of sales and marketing inclusion in forecasting. At the same time, "Customer, Customer, Customer!" was fashionable, and sales became the focal point for forecasting and the 'one size fits all' solution, ignoring the importance of marketing input.

In many businesses following a 'Customer Relationship' strategy sales leadership is appropriate, but in organizations with' Product/ Service Differentiation' strategies, marketing is the principal driver of medium to long term demand prediction. This distinction is covered in more depth later in this article on Alignment to Success and Future Sustainability (Section 8).

Giving sales single accountability for the forecast led to some organizations spending too much time analyzing detailed history trying to get the forecast accurate, instead of being with the customers gaining knowledge about future trends.

Against this background of trying to get the forecast accurate there was a growing realization that there is a different inherent uncertainty in different markets, channels and sectors, and with different products and customers. After years of complaining about forecast accuracy and trying to 'crank the handle faster' on the same old detailed forecasting machine, companies began to wake up to forecasting for what it is – it is predicting the future! By no means does this remove the responsibility for forecasting, but it did lead to new and innovative ways of making a more educated prediction. In agreeing a forecast an important piece of knowledge is to understand the range (high and low), and providing numbers without supporting documented assumptions is unhelpful. In some companies the rule is that a forecast number cannot be changed unless an assumption is also changed. This stops the febrile number adjustment which goes on forever in the weekly/monthly forecast review. A summary example, showing the importance of assumptions underpinning numbers, is shown in figure 11.

Today we understand that a robust demand plan over a minimum of 18 months is only possible by reconciling cross functional views; volume and value must be integrated. Finance and logistics / supply chain are committed to this output. In general sales input by major customer (with input from account managers) and channel is important in the short term, typically the first 4 – 6 months. Marketing provides information beyond 4 months based on market share, goals and brand / product health and marketing investment. Strategic marketing and research and development in many cases, have a role beyond 12 months particularly in new activities. There must be reconciliation between foresight (strategic marketing) and forecasting (tactical marketing and sales). These are guidelines only to illustrate the collaborative approach and will vary depending on the business. The responsibility of finance and supply chain / logistics is to insure that the volume and financial forecast are reconciled and aligned. The demand plan is at an aggregate level and the aggregate families chosen, understood and used by all functions. Simulations at the aggregate level are more helpful than trying to do 'what ifs' at the sku. Choose a software solution that facilitates this capability.

Traditional S&OP tended to use manufacturing families. In *demand driven* environments and *product differentiation* businesses today, we see the aggregate product family being brand or brand / technology. Why would one choose an aggregate group with little relevance to marketing and sales?

Managing Supply

Supply Management has also broadened in its scope. Traditionally it used to apply to just manufacturing but it is now extended from manufacturing to a wider view of 'sourcing', which includes other resources including external ones. In multi national organizations it has extended to supply chain optimization, making the best sourcing decisions from scenario planning. This has challenged the planning capability in many organizations in that traditionally many planners have been used to management and execution in detail at single supply points; supply chain optimization is a wider role calling for the ability to test different scenarios and recommend and make the right choices.

In service companies there is no manufacturing. Managing supply is managing resources e.g. people, different skill sets, facilities, equipment, etc. In this application S&OP is really Sales and Resource Planning.

Monthly Timing and Integration

The widening scope of new activities, demand and supply has put even greater pressure on a more 'joined-up' approach as businesses have become bigger and more complex. Integration throughout the entire Sales & Operations Planning process has become an even bigger challenge. We have noticed that without a robust S&OP process, some large organizations attempt to solve complexity by being more loyal to each other by functional, and each function follows its own agenda. Without a clear business strategy this loyalty by function surfaces as supply following a cost leadership agenda, sales a customer relationship agenda, and marketing following product differentiation. This is a classic case of chasing universal functional excellence, and ending up world class at nothing.

Aligning new activities with its impact on demand and supply from the Senior Management Business Review, through the Integrated Reconciliation process we have a business management understanding of the latest view.

This integration, combined with the increased future horizon, emphasizes the connection between the steps as the most important element in success (two-way arrows are more important than the boxes). We also stress the need for this to be seen as an iterative process, normally run on a monthly cycle so that decisions taken during the process and confirmed in the senior management review in the month are fully communicated into the organization and executed through the process in month 2 and beyond (figure 9).

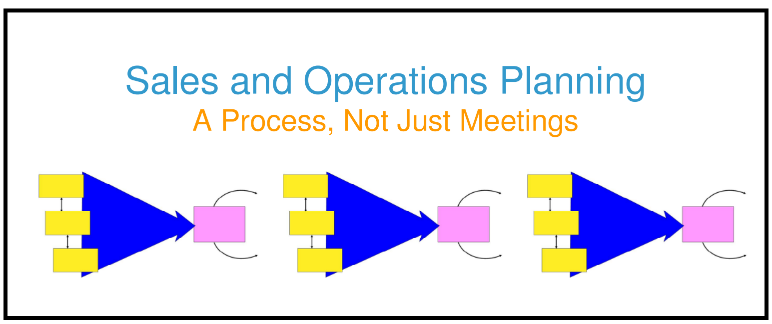


Fig 9

The arrows from the senior business management review into the next cycle show the importance of making, committing to, and communicating decisions and taking action.

These changes to the process had a major impact on the leadership of the implementation, and its use in the organization.

Traditional S&OP was normally led from the supply side of the organization. The importance of new activity integration and early volume/financial reconciliation can not be recognized if only supply people lead the implementation. The result will be a process which has all the hallmarks of figure 5.

Early engagement of finance is crucial and strategic influencing of sales and marketing is vital from the beginning to ensure success. The paradox is that supply chain people are normally the first to recognize a need for S&OP, but they should not be seen as the principal leaders. We deal more with leadership when we discuss different strategies and their impact on S&OP in section 8.

Without understanding the impact of strategic alignment, many practitioners have gone from traditional S&OP (figure 5) to a five step copy of the Ling/Coldrick model (figure 8), even plagiarizing our term 'Integrated Reconciliation'. They have missed the vital connect to the Senior Business Management Review. They implement from left to right because they are process thinkers, not business leaders, and start with new activities, demand and supply which results in an operational agenda for Integrated Reconciliation. A lot of them even specify the steps by numbers, and always call Integrated Reconciliation the "step 4". Eventually they see senior management disconnected from the process and wonder what went wrong. We discuss this implementation problem in section 10.

Managing Paradox

Used properly, the S&OP process provides a means of managing the choices and trade-offs across the business, and taking decisions to keep on track with strategic direction. Inevitably, these decisions will need to cut through the conflict caused by opposing pressures of seemingly contradictory views. The implementation, as well as the use, of S&OP is riddled with paradoxical choices.

Reconciling these paradoxes is a key to unlock the real potential of Sales & Operations Planning. To illustrate, here are a few of the 'repeat offenders':

The '**Leadership' paradox** – in many companies, the 'supply' organization initiate the S&OP process as a reaction/response to the pain caused by changing forecasts and the apparent disregard from the 'demand' side of the business for stability, efficiency and reduced complexity. By biasing the S&OP 'agenda' with a supply perspective, typically those functions that need to be actively involved and driving the process are often alienated. These situations pose a challenge: those who have initiated the process need to relinquish their leadership of it, if they are to realize the total business benefits. Leadership choice must come from an understanding of the strategic intent of the business.

The '**Horizon' paradox** – there is a constant tension between the need to take decisions to protect long-term value and the necessity to hit the numbers now! There are compelling arguments for each of these objectives and the only sustainable proposition is to do BOTH! Some have made the error of defining S&OP with a horizon of 3-18 months; the intention was good in attempting to focus management attention beyond the immediate short term. Unfortunately it led to disconnected processes – a short term Sales and Operations Scheduling process (0-3 months) with weekly or daily review, and a separate S&OP process (3-18 months) reviewed monthly, and sadly no link between the two. A major benefit of S&OP is that decisions taken in the medium to long term will decrease the number of 'surprises' in the short term. For example, a demand peak in months 9-11 must be solved by outsourcing; S&OP would make that decision proactively knowing ahead of time the consequences of that decision so that when months 9-11 become months 2-4 we already know how to manage this peak. If S&OP is disconnected, planners in short term scheduling will behave reactively when they see the demand peak in month 3, make decisions and count the cost afterwards. Sales & Operations Planning done properly would show a minimum of 0-18 months at an aggregate level over the whole horizon providing an aggregate view of the short term in the context of the medium to long term. Quarterly and 'year end' targets are important, but decisions must be taken in the wider perspective of 'next year' etc. A 'year end' focus is pragmatic and appropriate; a 'year end' obsession is unhealthy for future sustainability. This is why a minimum of 18 months visibility is recommended. The horizon dictated by strategic intent is normally 24 months.

The **'Consistency' paradox** – 'One person's consistency is another's bureaucracy'. A mix of personal preferences, functional bias, national and company cultures all add-up to a very specific reaction to a 'prescribed' way of doing things. Ultimately, we would want to strike the appropriate balance between allowing 'space' for people to be creative in addressing issues and opportunities, taking decisions close to 'the action', while providing a framework to direct that creative energy and allow the multifunctional elements of the organization to effectively mesh together. The paradox is buried in the phrase 'appropriate balance'. Why is it in some environments a 'timetable' is taken as an 'absolute deadline' while in others it's merely a 'suggestion' or even an 'imposition'? Why do some organizations see a consistent 'template/format' as a necessary way to allow integration and aggregation of information, while others see it as a request or challenge for innovative ideas on how to lay-out things differently? In this article we have touched-on some other potential dilemmas that will need to be reconciled. We work to develop the behaviors and capabilities to cope with, and thrive on, this ambiguity and confront the choices - allowing you to break through these paradoxes and establish solutions that 'get both' and in doing so add more value!

Our *Business Guide*[6] to S&OP gives a blend of consistency in disciplines and choices in strategy, some of the assessment questions are 'checklist type', requesting a yes or no answer. These are typically searching questions on how well operational effectiveness is being followed in the S&OP process. Other questions in the guide revolve around differing responses, given that strategies are different, and practitioners are at different levels of maturity in the processes.

The changes made from the traditional S&OP model (figure 5) to our five step process (figure 8) have led many businesses toward a robust and credible foundation (figure 10).

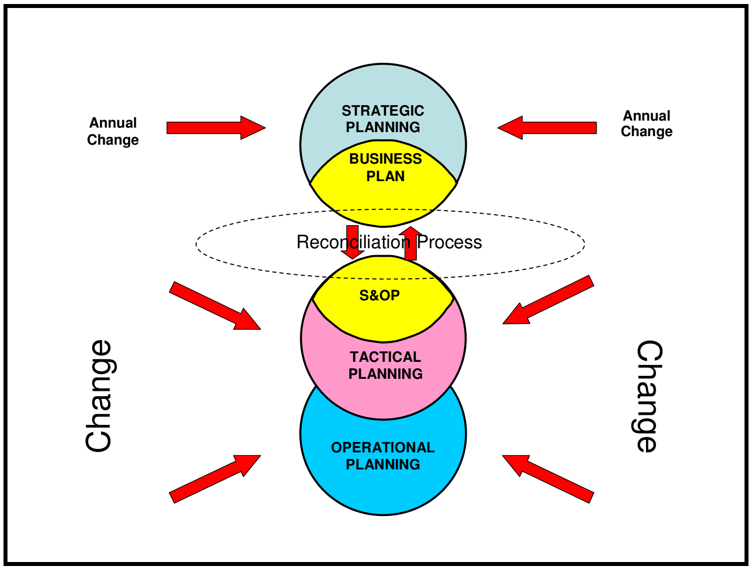


Fig 10

The two arrows between S&OP and the business plan are of equal strength, which means that we have a robust and credible latest view of the business which may be different from the budget, but the two must be reconciled. Each is credible, and we must answer questions on what we need to do differently to meet the business plan. Building the ongoing reconciliation is the first step towards a cross functional business planning process.

The next step is the updating of strategies from the reconciliation of the business and tactical plans, which is the goal expressed in figure 4. The ultimate test is whether the senior team has the commitment and confidence in the process to dismantle the incumbent budgeting process. The need for this is made clear when S&OP is directed **Right to Left** from strategic intent. Then senior management has the commitment and confidence to drive the process.

6. Knowledge and Knowhow vs. Drowning in Data

Any implementation puts pressure on the need for management information and not transactional detail. We designed a typical management information spreadsheet showing the importance of integrating volumes and financials, with underpinning qualitative information on assumptions, changes to assumptions and decision support. This format has been proven as a powerful means of communication and ensuring consistent understanding of the 'story behind the numbers'. Enhanced by today's powerful information technology, this allows succinct management information to be available in any environment for fast, effective decision making (figure 11).

Volumes, Financials and the Story in One Sheet

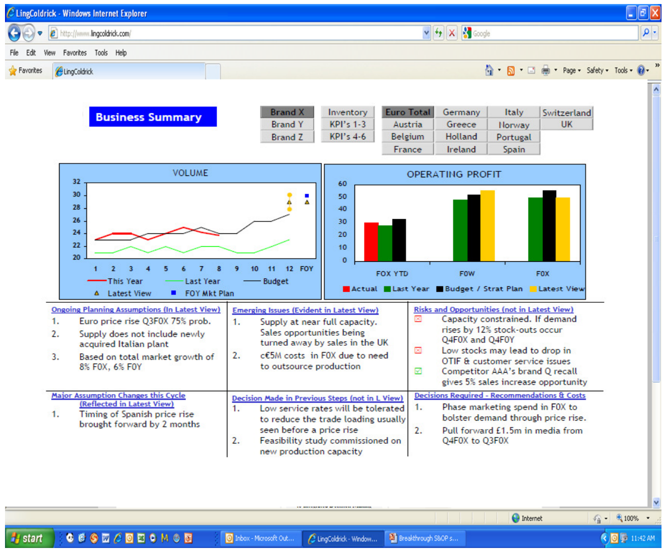


Fig 11

Our experience in developing S&OP into a business management process has led to some interesting findings that aggregating data alone does not necessarily give good management information. This is sometimes called "drowning in data, but starved of knowledge".

Our emphasis is on **'roughly right rather than precisely wrong'** to help businesses avoid the trap of projecting forward two years worth of detail at the stock keeping unit level. The detailed approach commonly found in statistical forecasting software leads to an answer which looks about right but cannot be understood. Thousands of minor changes within the 'Black Box' are not visible at a higher level. Management has no idea why the latest view has changed, or whether the latest changes to plans have been incorporated. Instead they are told the system says, "This is the answer, you have to believe it!" A better approach is to build knowledge and knowhow by having a business discussion around the following questions:

- What major assumptions underpin the forecast?
- What changes to assumptions have been built in to this forecast since last cycle?
- What are the issues and gaps I should know about?
- What are the risks and opportunities around this latest view?
- What decisions have already been taken but are not yet reflected in this view?
- What decisions should we be taking now?

The statistical forecast is always a useful input to the S&OP process, but is not as valuable as understanding changes to assumptions. For example, the assumption on low volume growth in the budget to support increased margin, may now have changed to a big volume push to hit a 'year end' target at the expense of margin. Making a high level adjustment on the 'roughly right' principle will be easier to do and more accurate for the medium to long term than changing the forecast at customer or SKU detail level.

If businesses pour enough resource (sales people, demand managers and systems) into planning numbers at detailed level over a medium term to long term horizon, they can get an answer, albeit an answer which will not be understandable to management because of the lack of high level assumptions. The main danger, apart from diverting the sales force from selling, is in creating an illusion of accuracy. The huge effort and cost involved in creating the forecast means people will tend to believe in it, whatever external changes may be occurring.

A further problem with detailed planning over the medium to long term is that no businesses have enough resource to do scenario planning and optimization at SKU/customer level. Simplification by looking at the overall context (e.g. region, brand, channel, technology type etc.) of the data that reflect major drivers of change in the market place and align the application of 'roughly right' assumptions rather than 'precisely wrong' tinkering is fundamental before trying to model even a few options.

Finally any strategy that calls for fewer and faster innovations, and shortened product life cycles will mean that more items will fall into the planning horizon even though they have not been invented yet, let alone have an assigned product code!

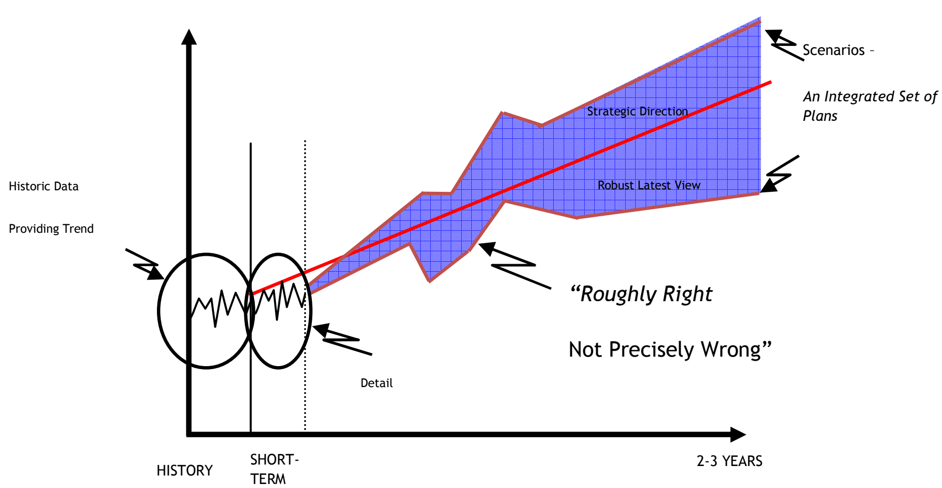


Fig 12

The level of detail involved in planning should change as the time horizon changes (figure 12). In the short term businesses need accurate transactional data on supply, sales, stocks etc. and will be focusing resource on collaboration with customers and the deployment of advanced supply chain optimization tools. In the medium to long term the 'roughly right, not precisely wrong' level of detail is required. Aggregating data, using brand families, average revenues by technology type etc. with a focus on the development of scenarios using business planning / simulation tools becomes important. This can only be achieved if finance has a strong leadership role in the implementation.

7. Uncertainty vs. Single Set of Numbers.

Although there has always been a recognition that forecasts are either wrong or lucky, the early S&OP movement followed a premise that with immense pressure and focus the quest for a 'single set of numbers' could remove uncertainty. In the early years that pressure and focus often created some benefit by putting a basic rigor in place in sales and marketing, and raising the profile of the need for improved forecast accuracy for operations. But for many, the operational ownership and quest for a 'single set of numbers' continued to dominate the conversation and became a mindless pursuit of accuracy beyond what was intrinsic in the markets in which a business operated.

Finance, meanwhile, had their own systems and realized that robust projections about the future relied on understanding scenarios. S&OP demands for a 'single set of numbers' were perceived by many finance people to be naive.

In the context of decisive action, the role of managing and communicating assumptions played a huge part in enhancing the understanding and reconciliation of different views of the future. Supporting the numbers with the underlying assumptions, risks and opportunities brings a richer dialogue about future projections and helps to focus on the greatest causes of uncertainty. Understanding the range (high/low) opportunities, risks, and uncertainties is crucial to the discussion before agreeing to the 'latest view' (figure 12).

In recent years, increased innovation, broader offerings to customers, reduced product lifecycles have made the old 'one-size-fits-all' approach to crunching the numbers simply inadequate. Progressive organizations have switched the focus from numbers only, to balance numbers with the underlying assumptions to reduce the inherent uncertainty to a minimum, and better manage risk.

However, uncertainty cannot be removed completely. There is still a range and that range needs to be understood in the context of the decisions that will be taken on that information. In environments with extreme uncertainties (for example, companies on the 'bleeding-edge' of technology breakthrough, movement into new markets and channels, pharmaceutical companies in the early stages of development), there is a need to go beyond understanding the 'range' around a given projection and may be the need to run alternative scenarios based on unique sets of different assumptions.

This level of sophistication requires a different level of input from across the business, and an understanding of how and when to use the output from different scenarios, but the acceptance of a range of uncertainty and the probable need for scenario planning typifies maturity in the S&OP process. Making decisions based on 'probability' and/or 'odds' of an event occurring with a particular result becomes very relevant. At what point should the 'odds' trigger a scenario that we should include in the 'agreed latest view'?

'S&OP as a Unifier' for a single set of number was a false hope. 'S&OP as a Unifier' for understanding and agreeing assumptions underpinning numbers is a sensible goal. To do that we need reconciliation process which welcomes different views? We need to align that view to a sensible business parameter. Is there a better parameter than future business sustainability?

8. S&OP as the Aligner to Success and Future Sustainability

In the last five years we have worked with several clients who had strong fundamental S&OP processes. They had a focus on a business agenda spanning 12-18 months in the future, aligned to business planning. However to gear the S&OP process to future sustainability we need to ensure that there is alignment to the first two years of the strategic view, as a continuum rather than year one discretely followed by year two. Without this, S&OP becomes aligned to the business agenda only 18-24 months out, with a temptation to focus on the first 12 months.

With these clients we have found great benefit in helping them align their S&OP process to the strategy of the business and the shape of the future product portfolio. It is also a mistake to assume that when strategies are formulated they do not change. In the 1990's when strategy was in vogue there was a misconception that strategy was set for several years. We know that many businesses change their strategies more frequently in today's challenging business environment. For example there are organizations that are formed from the merger of two companies, who having promised the stock market reductions in the cost structure, see this drive for efficiency as a necessary foundation for profitable growth. A common problem is that executives recognize that the strategic thrust must change, but some managers still believe that the business is still following cost reduction as the primary target. Executives recognize they should follow profitable growth but they do not communicate it well. Supply tries to control based on forecast accuracy, but business growth potential can be damaged by the business not realizing that growth is accompanied by greater forecast unreliability. Manufacturing gets blamed for not supporting growth potential.

S&OP done properly and aligned to the business strategy is a great tool for ensuring that the strategic and operational plans are in sync. We do not see the Senior Business Management Review as a forum to develop strategy, however it certainly is the proper forum to review strategy execution; it is there to ensure that the operational plans and the latest view are in line with the strategic plan. Any major divergences are highlighted and discussed at a separate strategy review. This is an important distinction, S&OP in itself is not strategic – it is the bridge between strategy and operations. Done properly it is also focused on flawless execution.

Earlier we highlighted the breakthrough that S&OP is the 'Reconciler'. However it must be reconciled to something. The choices are to reconcile to an 18 month business planning agenda, with an emphasis on hitting the budget, or alternatively seeing the next two years as continuum towards future sustainability. The first year would be the budget, and the second year would be the early part of the strategic plan in this latter option, but viewed as a continuum.

The two questions which need to be posed to any business whose S&OP process needs to be aligned to future sustainability are:

I. Of the three most the well known strategies - Cost Leadership, Customer Relationships and Product/Service Differentiation - what is the strategic direction in your business? Network strategy as a fourth choice[1] is not discussed here, S&OP still applies but only a small number of businesses follow this strategy, two prime example being eBay and Microsoft.

II. How much is new product introduction part of the future portfolio? How much is really 'new' as opposed to what is 'repackaged'?

The type of executive leadership and the differing emphases of elements within S&OP depend on strategic intent and the future product portfolio (Figure 3). Understanding the difference in emphasis comes from aligning S&OP to the business agenda through **Right to Left** thinking.

S&OP Executive Leadership Depends on Strategic intent:

Every business has a strategy; it is either crafted by executives or it exists in the organization by default. The most common strategy default is Operational Excellence! However, as Michael Porter explains in 'On Competition' operational excellence[3,5], is not really a strategy; it is a necessary discipline and is a very important element of Cost Leadership. He points out in his book 'Can Japan Compete?' that competing on operational excellence or operational effectiveness leads to competitive convergence, which means that all competitors in the same industry compete on the same dimensions. This sounds like trying to achieve some arbitrary standard with a checklist on universal excellence.

Operational effectiveness is needed in any organization following any strategy, but in itself it does not guarantee uniqueness or differentiation. These two, uniqueness and differentiation, are at the heart of strategic intent. As an example, there were some businesses in the early twenty-first century that followed 'Customer Intimacy' blindly and even called their S&OP process "Demand Driven". They became very responsive, but ignored the discipline of operational excellence (sometimes called operational effectiveness). These businesses grew revenue by being responsive, but became less profitable because they paid little attention to the cost of responsiveness.

Improving operational effectiveness towards excellence is necessary to achieving superior profitability, and is imperative but not sufficient. In itself it is not a strategy[3,5]. A common problem is that people see operational excellence as the only strategy underpinning Cost Leadership, and they ignore all the other activities that they should be following.

A business with a *Cost Leadership*[1] strategy aligns more to the traditional S&OP process. Managing the portfolio of new activities is a minor role. Managing supply, because it is the biggest cost has the major role and the objective is to supply demand at the lowest cost. Therefore supply feels the need for S&OP more than most. Eliminating forecast bias and improving forecast accuracy are the priorities. Other critical success factors include discipline, efficiency and effectiveness, clearly defined roles, waste elimination, continuous improvement and reducing layers in the organization. A single set of numbers in this environment is appropriate and executive leadership should be from finance and supply. Key measurements, in addition to forecast bias and accuracy are customer service to promise, asset utilization and cost. (Figure 13)

Impact of Strategic Focus on the S&OP Process

Strategic Focus	Emphasis	Focus	Key Measurements
Cost Leadership	•One set of numbers for supply	•Volume •Cost	•Customer service •Forecast variability / stability •Asset utilisation •Cost
Customer Relationships	•Bottom up view from account managers •Sales planning •Impact of promotions •Macro overlay of customer segmentation.	•Volume •Revenue growth •Opportunities (Hi) •Risks (Lo)	•Customer retention / lifetime value •Revenue by customer / channel •Customer profitability
Product Differentiation	•Strong strategic marketing overlay on bottom up view •Invest, growth vs defence •New activity prediction and risk management •Strong portfolio management	•Volume and profit •Opportunities (Hi) •Risks (Lo)	•New products as % of profit / revenue •New Product-time to profit •Profit by brand / category •Brand health •Market share

Forecast *Accuracy & Bias* need to be measured in all cases, however the targets will be different - One Size Does Not Fit All

Fig 13

Customer Relationships[1] is a strategy followed by businesses who believe that customer segmentation and providing a tailored service are the keys to growth and success. S&OP implementation is led by sales with strong support from marketing, finance and supply chain. The decision making process focuses on volume and revenue growth, with an understanding of opportunities and risks – a 'range' of numbers rather than a 'single set'. Emphasis is on sales planning with extensive involvement of account managers, promotional activity, and the timely introduction of product line extensions. High levels of customer service and supply chain responsiveness at minimum cost are standard expectations. Principal targets include customer retention, customer penetration, revenue and profit by customer/channel.

In businesses that follow *Product /Service Differentiation*[1] as a strategy, leadership in S&OP implementation is normally strategic marketing, with support from research and development. Strong support is also needed from sales, finance and supply chain. Decision making focuses on volume and margin growth, understanding opportunities and risks – again a 'range' of numbers rather than a 'single set' and in certain cases scenario planning; uncertainty goes with the turf. Emphasis is strongly on strategic marketing, new activity success, pipeline fill, minimizing obsolescence, and portfolio management. High levels of customer service and supply chain responsiveness are expected, although there is forecast uncertainty. Primary targets include new products as a % profit, new product-time to profit, and profit by brand / segment, brand health and market share.

Getting clarity in strategic intent is important before embarking on a Sales & Operations Planning implementation or a re-implementation. Without this clarity an S&OP implementation embarks on a "one size fits all", where by default the assumption is that operational excellence is a strategy. If the 'one size fits all' approach is followed for businesses utilizing the strategies of Customer Relationships, Product/Service Differentiation, there will be no enthusiasm from marketing, sales, finance or business management. These key participants resent spending valuable time in a process which spends several hours in a month focused on volume and cost implications, one set of numbers for supply, and a set of measures which mainly interests supply chain, and only one measure i.e. customer service, of interest to sales, and little to offer marketing.

Different Portfolio Models and their Impact on S&OP:

How different the future will be from the past and present is important in understanding the business issues that connect to the S&OP process – S&OP is all about managing change and its consequences! In figure 14, we show five different portfolio models with their different emphases on S&OP:

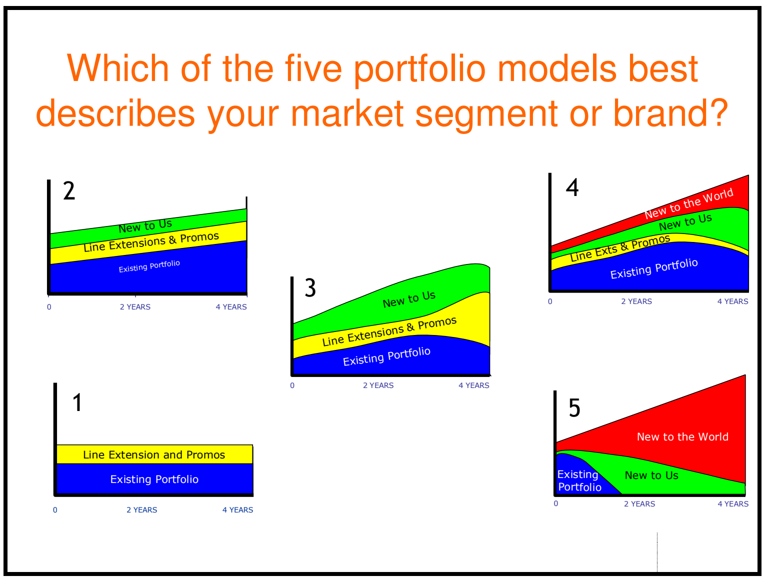


Fig 14

From models 1-5 we go from a future devoid of new activity to one with a high degree of new product introduction; in fact, in model 5 the new activity impetus is coming from products which are 'new to the world'.

An S&OP process in portfolio model 1 would be traditional, and since there is no new activity in the next five years, demand and supply balancing would be the emphasis in S&OP. Because forecasting standard product in markets which are not growing is relatively straightforward, there will be an emphasis on forecast accuracy and a single number in supply. A business of this kind would be typically following a strategy of Cost Leadership. An example would be commodity chemicals.

In model 2, there is more new activity but it is relatively straightforward and the business appears to have linear growth. New activity would play a part but it would be a minor role. An example would be an industrial chemicals organization whose main business is commodities, but is also looking at specialty chemicals and may be acquiring small businesses to augment the 'new to us' category. The strategy here is primarily Cost Leadership, but the response in specialty chemicals could be 'differentiated service' because of the higher margins of these products.

The most challenging business model for traditional S&OP is model 5, where the existing portfolio today will not be around in four years time. These are businesses with a high degree of technology change and rapid implementation of new products. Portfolio management including new products is the single most important step in the operational processes. The traditional S&OP model of demand and supply balancing would appear to be of little relevance to executives in this environment. 'Uncertainty' and a 'range of numbers' in the Integrated Reconciliation step, and the importance of simulation and its impact on profitability have enormous consequences. Measurements such as 'time to market' and 'time to profit' are immensely important. Standard S&OP software that does not facilitate forecasting of new products before they are given a specific product code is an obstacle in this environment. Electronics manufacturers, mobile phones, software, and computers are in this portfolio model. The strategy normally followed in these companies is Product/Service Differentiation.

Many food and drink companies and fast moving consumer goods and pharmaceuticals are examples of portfolio models 3 and 4. They would typically follow product/service differentiation or customer relationships.

If your business has a portfolio similar to 3, 4 and 5, spending time on only implementing a demand and supply process such as the traditional model in figure 4 is really inappropriate.

Strategic Intent and Future Product portfolio and their Impact on S&OP

Understanding the business strategy is essential to understanding how S&OP will work. In the previous section we discussed how S&OP product portfolio models work and how these go hand in hand with the understanding of strategic models. Strategies are about choices and tradeoffs, and each business needs to understand the principal strategy it is following. It is not unusual to find that some organizations might have different business units following different strategies.

A principal goal of the business pursuing a particular strategic direction is '**Differentiation from Competition'** leading to competitive advantage. A business guide to S&OP showing different nuances and choices can be very helpful, whereas a one-size-fits-all universal checklist for S&OP is not appropriate[6]. Why would a business strive to end up the same as its competitors?

9. Discoveries Leading to Breakthrough S&OP:

We have summarized the breakthroughs in S&OP knowledge, and demonstrated the sequence in which they were discovered (Figure 1). The pattern is left to right and from bottom up. This is because we are trying to discover a remedy for reactive execution

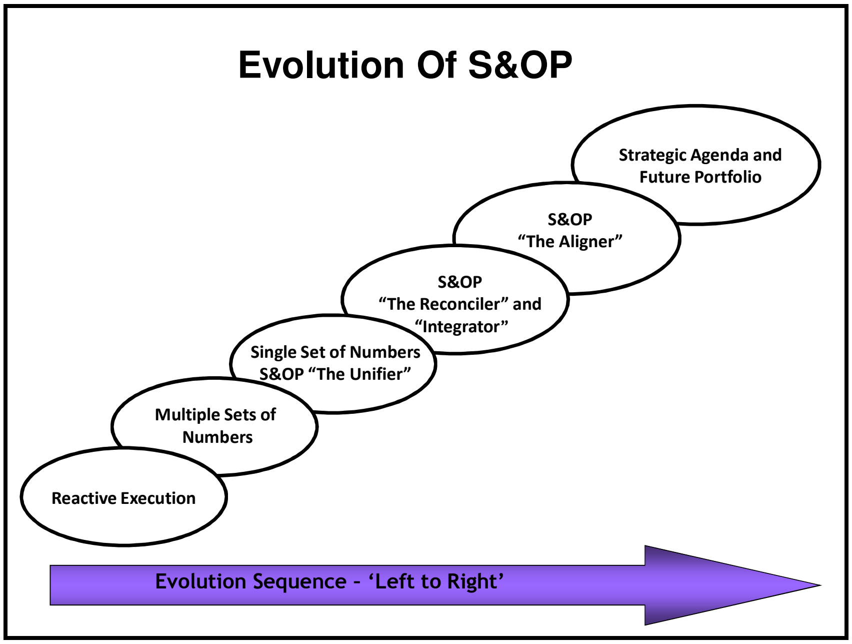


Fig 1

Discovery 1: S&OP as the 'Great Unifier'. The desired outcome was one view or a single set of numbers, which was the considered antidote to multiple sets of numbers. This pursuit of the 'Holy Grail' created dysfunction in the organization. In hindsight S&OP as the unifier cannot be achieved until the process is aligned and reconciled.

Discovery 2: S&OP as the 'Great Reconciler' and 'Integrator". It is not possible to get an 'agreed latest view' unless the different views are reconciled. There must be recognition that different views add value to the process and provide a greater understanding of the latest business view. In addition when multiple markets and supply points are involved the S&OP process has to be integrated in a timely fashion. These two factors are the reason behind why we changed the "pre-S&OP" term to "Integrated Reconciliation" i.e.; reconciling different views across functions, countries and regions.

Discovery 3: S&OP as the 'Great Aligner'. Reconciliation involves 'making apparently conflicting things compatible or consistent with each other'. In the early days, we tried to align S&OP with the budget only. Unfortunately this led to behavior supporting a 12 month view at the beginning of the fiscal year, but became shorter term as the fiscal year progressed. The 'breakthrough' came, with S&OP as the 'Great Aligner', was when we realized that it must be aligned beyond 'year end'. That future involves the Product Portfolio and the Strategic Intent of the business.

Although this is how S&OP has developed, we must reverse the discovery sequence to implement **Right to Left**. This will guarantee success and means that you will get real financial benefits from the process in six months. We start the implementation from the Strategic Intent and Future Product Portfolio. (Figure 3)

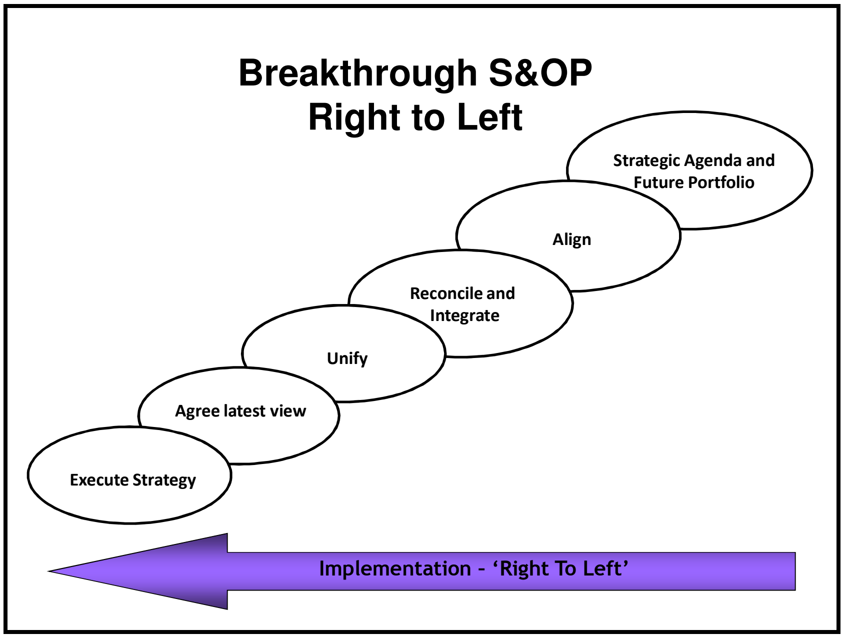


Fig 3

The implementation phases are:

Phase 1: S&OP as the 'Great Aligner': The first step is to recognize that success comes from a Top Down commitment. We said in the Executive Summary that executives get tired of the "Top Management Commitment Syndrome". But it is a simple issue in S&OP: without it implementation will be left to right or bottom up. Therefore the Senior Business Management Review and how its agenda is driven from the Strategic Intent and Future Product Portfolio becomes the primary driver.

Phase 2: S&OP as the 'Great Reconciler and Integrator': This means that the business agenda in the Senior Business Management Review [step 1] drives the activities and discussion of Integrated Reconciliation [step 2]. The different views adding value are explored and reconciled with the strategic intent of the business. In more complex companies involving global, regional and country wide activities, a mandatory step is to integrate and reconcile these views both top down and bottom up.

Phase 3: S&OP as the 'Great Unifier'. This means that the operational steps of New Activities, Demand and Supply are directed from the needs of the integrated reconciliation process. Different views are welcomed because they add value to the knowledge of the business. Functional behavior is not tolerated in these steps and cross functional discussion is expected. All participants in the S&OP process are committed to a unified **agreed latest view** having considered the different options.

Phase 4: Executing Strategy. This is maximizing the full potential of S&OP. Because the **agreed latest view** is aligned to strategic intent, executing that view is executing strategy. Short term execution is compatible with long term sustainability.

10. Summary of Different Implementation Approaches

This is a time phased implementation plan showing the activities that should take place over an implementation time frame of six months. Phase one takes place in months 1 and 2, i.e. alignment with senior management, and driving its agenda through the Integrated Reconciliation. Phase two takes place in months 3, 4 and 5 i.e. driving the needs of Integrated Reconciliation to be the outputs from new activities, demand and supply. Phase three is the realization of benefits and executing strategy. (Figure 15)

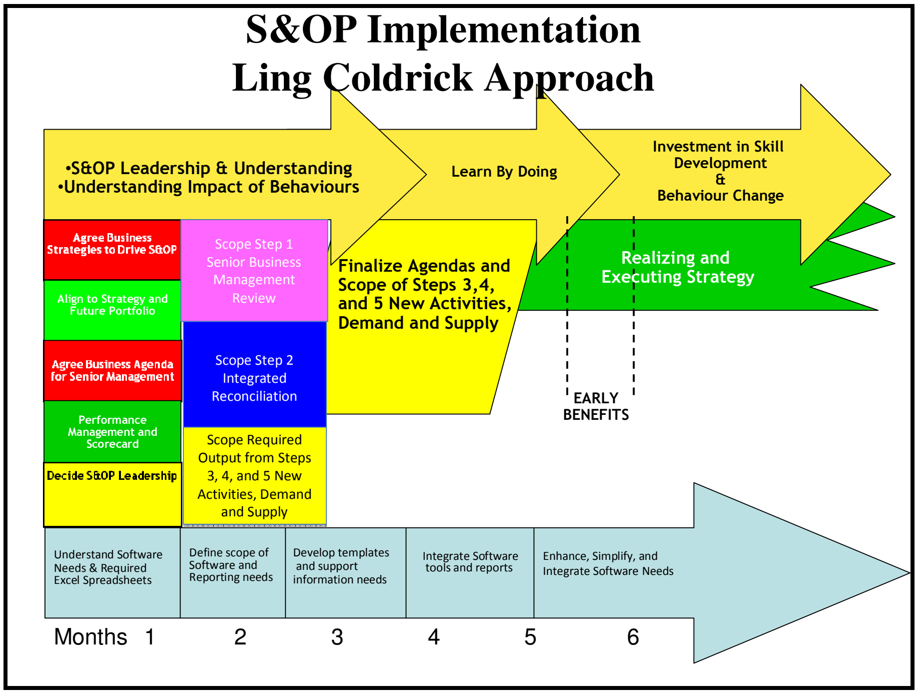


Fig 15

Although we believe a customized approach to S&OP is important, there are certain principles that remain constant. The first and most critical one is that no business can afford to spend time on S&OP unless there is a return on S&OP in six months. Early successes and breakthroughs are mandatory. This implementation approach must be customized for your environment.

Our **Right to Left** approach is unique to Ling-Coldrick. As far as we can see most alternative approaches are left to right. Some, who are wedded to the single set of numbers mantra, implement from left to right as in figure 16.

They still have the goal of a single set of numbers and believe that 'S&OP is the Unifier' although agreement is mostly superficial. For one to two days a month they agree to a number, then post S&OP meeting they realize it will not happen. They then think up excuses why the number will not be met and get ready to present an alternative one at the next meeting. At best this is operational planning only, unless the organization has Operational Excellence strategy by default, and is disconnected from the senior management business agenda.

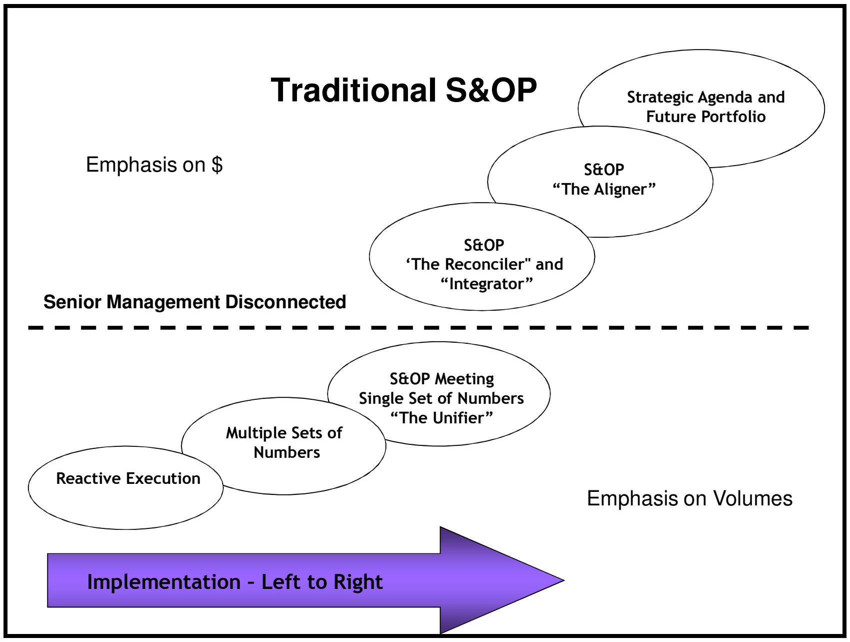


Fig 16

Other consultants have tried to copy our five step model, including Integrated Reconciliation, but have missed the point by recommending a left to right approach. They have confused process mechanics in figures 7 and 8 where the arrows go from left to right, showing that decisions from the Senior Business Management Review in month one flow into month two. In figure 16 the five step copy is shown and the implementation sequence from 1-5. Some even compound the error by going really traditional, and advising their clients to start the process by managing demand and supply, followed by new product introduction. They then hope to evolve into an Integrated Reconciliation step which may or may not coincide with the agenda of Senior Business Management. This is a "ready, fire, aim" approach and unlikely to hit the target.

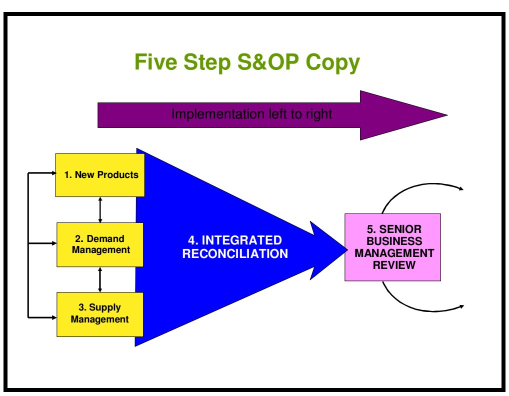


Fig 17

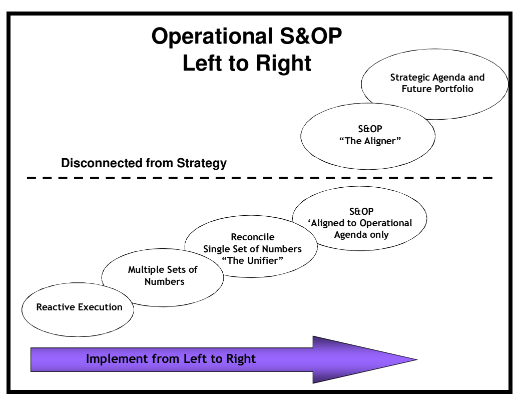


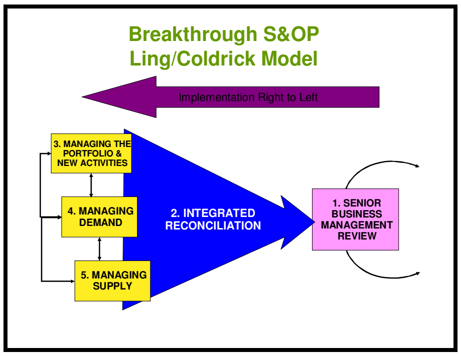
Fig 18

The result of such an implementation is invariably an operational process disconnected from strategic intent. People who advocate this approach are very often those who believe that Operational Excellence is a strategy not a discipline. They are then surprised to find that the CEO or leader of the business is following a real strategy, and has difficulty understanding what

S&OP will give the senior team. The worst solution is to allow someone who understands operational S&OP, but is not in the senior team, to tell the CEO how to run the Senior Business Management Review. People who follow this approach are recognizable in that they always refer to Integrated Reconciliation as step 4, showing that for them it is the fourth step in the process coming from left to right.

11. Conclusion: The Best Approach is Right to Left

We conclude by recommending our **Right to Left** Approach which insures that the S&OP process from the outset is aligned to the strategic agenda.



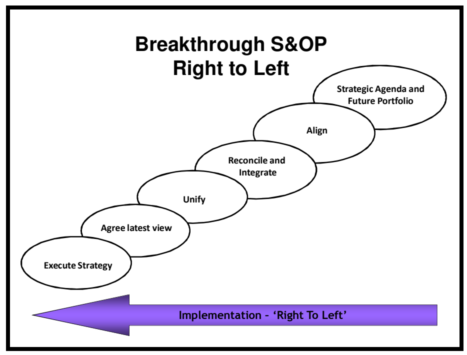


Fig 18

Fig 19

Apart from the fact that this is the fastest implementation approach that guarantees successful alignment, the compelling reason is that senior management are taking the leadership role from the very beginning. The right to left versus left to right results in a totally different emphasis on the way Integrated Reconciliation works. The context and content are entirely different. In left to right with the five step copy in figure 18 and 19, integrated reconciliation (step 4) is developed from operational issues. The IR team will predominantly consist of operational people.

Our Right to Left Approach guarantees that Integrated Reconciliation is driven from strategic intent, and therefore is responsible for resolving business issues (figures 18 and 19). The outputs from the operational steps 1, 2 and 3 are determined by the Integrated Reconciliation. The IR team will be made up of more senior business people.

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