You Can't Spot Serious Shareholder Value?
Check Your Paradigms!

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Summary:

Executives are under too much pressure to spend time looking for and developing new and better solutions to running their business. They are aware of the need to manage their business as a system but on the whole do not do so, because they are lacking the tools to do so. Goldratt's five focusing steps are a way to solve this missing capability by focusing on the very few constraints any (business) system can have. Policies (the way things are done) are key constraints to better profits and improved SVA and many need to be changed. Some examples show how policies from the past are blocking businesses from earning much better SVAs

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There is an explanation (attributed to Dilbert) why top executives make so much money going around the World Wide Web. It begins with two statements that we all know and believe. They are "Time is Money;" and "Knowledge is Power". The engineering formula that "Power equals Work divided by Time" completes the premises. So, when we substitute Power with Knowledge and Time with Money we get the new equation that "Knowledge equals Work divided by Money". Solving this for Money we get: "Money equals Work divided by Knowledge". So the conclusion is that - as Knowledge approaches zero, Money goes to infinity – explaining executive salaries!

Not very flattering if you happen to be a senior manager! However before we dismiss this Dilbert impudence we should consider that behind humour lurk real problems. (Russians are famous for innumerable jokes critical of their political system and politicians and with good reason.) Dilbert often puts his finger on some painful truths, so maybe we should look for the real problem(s) hiding behind this story. Maybe understanding it will lead us to some very significant shareholder value.

Over at least the past thirty years there have been a number of studies trying to understand how busy executives manage their jobs. No one was really surprised to learn that most top-level managers address a large number of issues every day, and influence or make many decisions. We also learned that these people do not solve every problem or issue from scratch – they use their vast experience to respond quickly to almost any situation. They use paradigms - guidelines and rules developed from experience. Could this be bad? Relying on paradigms inevitably prevents (or at least slows down) a person from developing and applying new knowledge. Maybe this inertia, sticking to paradigms, is why managers' knowledge seemingly approaches zero over time.

Every management problem actually requires two decisions – the decision that solves the problem itself, and the decision of how to solve the problem. Should a manager

solve the problem from scratch or use paradigms he is used to and has been successful with? This second decision is what interests us here, because it defines whether or not an executive wants to (or can) improve. Should he invest his valuable time in developing better (more competitive) solutions or should he use his paradigms to arrive at a quick solution – and move on?

All executives are acutely aware of the need to look for better and better solutions. If they do not, they are putting their business in danger. If they do look for better solutions they could also be putting their business at risk, because some important problems or issues might not get addressed or should not be entrusted to others. Executives always face this contradiction. Should they look for and try new and better ways, or should they stick to what they know? The dilemma is – to question, or not to question (paradigms).

Niccolò Machiavelli describes it very well in 'The Prince':

"It follows that an acceleration in the rate of change will result in an increasing need for reorganisation. Reorganisation is usually feared, because it means disturbance of the status quo, a threat to people's vested interests in their jobs, and an upset to established ways of doing things. For these reasons, needed reorganisation is often deferred, with a resulting loss in effectiveness and an increase in costs."
Reorganising our paradigms, our thinking, is no different from reorganising an organisation and just as difficult to achieve.

E.M. Goldratt claims that every contradiction or dilemma can be 'evaporated' – that there can be no contradiction in reality. Just as in the physical sciences, we should examine our contradictions to find the flaw that will eliminate them. He demonstrates that behind all conflicts, dilemmas and contradictions there is a series of assumptions underpinning both sides. All it takes is to find an invalid assumption, or have the ability to invalidate an assumption, and the contradiction disappears – it "evaporates". In the above dilemma executives assume (implicitly) that their business is very complex and only they have the 'big picture'. So only they have the vision and capability to attend to the many different problems facing their business. Goldratt contends that businesses are really quite simple. There are, in fact, almost never more than one (1) or two (2) things blocking a business from achieving more of its goal – the goal to make (more) money (SVA) now and in the future.

This claim, if true, greatly simplifies an executive's job. Suddenly he can focus a high percentage of his attention on just two things. What a revelation; what a relief; and what a simplification. Now he can really concentrate on new ways to address those most important issues. With executive focus things do get done. He will spot and achieve serious shareholder value.

However, why should the claim be correct? Is the whole world wrong in its view of business? Well, much of the business world has embraced the idea of 'Systems Thinking'. We all know a business is a system of interdependent functions and that a business should be managed in a holistic way. So, we can look at a business as a chain – with many interdependent links. All a businessman has to do is to look for the constraining function of his business – the weakest link. There will always be one. Rarely if ever will there be more than two. Too many constraining factors lead to chaos in a system making it very difficult to control.

Therefore, to spot serious SVA executives have to first find the constraint(s) of the business. This is the first of Goldratt's Five Focusing Steps of continual improvement. There are four different types of constraints – physical constraints within the business, a supply constraint, a market constraint (the market will not buy all we can sell) and policy constraints. Policy constraints, the way things are done, are probably the most important and least understood.

What is the most frequent response to a physical constraint? Often it is to invest in more capacity. Is this the correct response? Of course not! The direction must be (and this is Goldratt's second focusing step) "what decision(s) must I take to exploit the constraint?" This decision will, if implemented, ensure that the output of the system is maximised. Nothing less will do. If a business were to invest before it knows how much can be wrung from its constraint it could very easily spend money unnecessarily – hurting SVA.

To implement the exploit decision we must now subordinate everything else to the above decision (Goldratt's third step). This is a huge paradigm shift for many managers. How many times have you seen a sales director subordinate to manufacturing, or vice versa? How often does the constraining resource determine what will be done? However, for really serious SVA every executive must get the most from his constraints – which necessarily means subordination by the rest of the organisation.

If the constraint is still in the same place after it has been fully exploited it is time to elevate capacity by investing money (the fourth step). Only now do you know you are investing in the right place. When a business adds capacity and/or breaks the constraint – the whole situation changes – all the things it knows about a business need to be re-evaluated!

The last of Goldratt's five focusing steps is simply: If during any of the above steps the constraint is broken go back to step one. BUT do not let your inertia (your paradigms about your business system) become the systems constraint! This caution is extremely important. We must re-evaluate all our assumptions about our system – or we will make grave mistakes and leave really serious SVA on the table. It appears that questioning our paradigms should be very high on every manager's agenda.

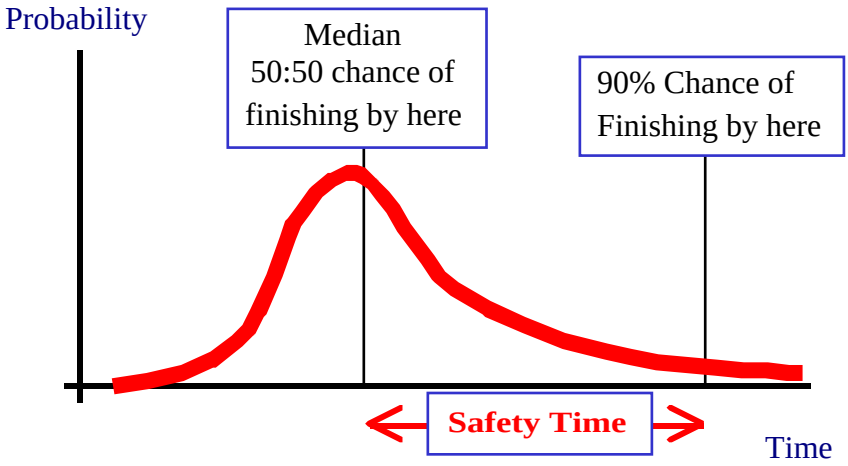
Goldratt has given us an approach to address a business' constraints – at least for the three first types. Policy constraints are different. If you find one – get rid of it, or make it appropriate for your current situation. The other four steps are not valid for policy constraints. Many policy constraints make our life difficult. Many of these policies are not even written policies – they are just 'the way things are done around here' or simple behaviours we have all become used to. No matter, they are hurting our SVA, our earnings. We must change them.

Examples of Policies that Damage Profitability:

Management by Objectives:

Managing by objectives has been around for a long time. It is true that if people are given objectives they usually try to meet them, they want to do a good job. But let's look at the situation in project management (a large proportion of business activity is projects) – a function that is famous for completion delays, budget overruns and project promises not met. Let us look at how managing by objectives delays projects!

Imagine you are one of the people doing one or several of the tasks in a project (Use



the drawing to follow). You have many years of experience and you know very well that Murphy's Law applies to tasks in projects. You also want to do a good job. So, you estimate the time of your task so that you have something like a 90% certainty of completing it on time. You provide your 90% estimate (plus a little bit more for management to cut). In the end you are committed to a task time which gives you what you hope is enough safety time. Moreover, everyone else in the project has done the same thing.

What have we done? Every task has an enormous amount of safety in it. This is because the probability distribution of a tasks completion time is skewed – with a long tail to the right. In many cases the time between the median (the time where you have a 50:50 chance of being early or late) and the 90% of finishing on time can be double and triple an estimated task time. The picture above describes the situation. This means that there is a lot of safety in a project. In fact knowing that the sum of a series of events has a tighter variation than any individual event means that for the project we actually have much more safety than just 90%. So why are projects so often late?

Usually most people, being very busy and knowing they have a lot of safety in their task time estimate, will not start work straight away. When they do finally start they have frittered away a lot of their original safety, they have wasted it. Most of the time

they finish on or near their original estimate – but those with bad luck finish late – sometimes very late. So with most people finishing on time (meeting their objectives) and only a few that are very late the project inevitably is late. Managing individuals by objectives is not a good idea in projects – what we want is everyone working to one objective, the project due date – task due dates are in fact meaningless.

Maybe it would be better to cut task time estimates in half and, since statistics help us, put only half of what we have cut into a project buffer. This should eliminate 'student syndrome' (starting at the last minute) and with better communication task hand-offs will happen with minimum delay – especially if everyone is now measured on the project performance. Will it work? Probably, but I recommend the reader studies the book 'Critical Chain' before attempting to make such a change.

Total Quality Management (TQM) Everywhere

TQM is a great tool for improvement, but what happens when a business tries to implement such a programme everywhere? Will it achieve a major improvement to the bottom line quickly? In the current revival of TQM there is a recognition that results must come quickly. Management will not wait years to see bottom line results; they want them now. For this reason consultants selling TQM insist on gathering 'the low hanging fruit – to show early success. Focus is on demonstrating early success.

The problem with most TQM programmes is that they are not focused on the constraints of the business. Improvements will be made, but either they will be small or their impact will not translate into bottom line results. Only those companies that are lucky enough to attack the right problem will see big improvements. Usually the rest will give up on their TQM programme – as happened in the past.

What sort of a quality improvement do we really want? Of course those bringing breakthrough results to the bottom line. Improvements with no impact to the bottom line are valueless. In fact they probably cost us SVA by causing delays (resource availability) in those projects that do bring money to the bottom line. So where do we focus our efforts? Of course, we focus on the constraint(s). TQM must be subordinated to the constraints just like all other functions.

Measurements:

Do our measurements cause the right behaviour in our people? What sort of behaviour would we like to see? It is easy to verbalise – we want our people to behave in a way that helps the system (the business) – to meet its goal. Do we actually measure performance in this way? Of course not. It is just too difficult to measure a function based on its impact on the business. This is why many companies have metrics to measure each of its functions – manufacturing, sales, R&D etc. In some enterprises something called 'functional excellence' is called a best practice.

Yield (or its inverse scrap rate) is a popular measure used in manufacturing. If it becomes the prime measure – the one the plant manager's bonus really depends on – then it will be focused on. So much so that the business will suffer.

For instance, a plant manager was told to improve yield from about 78-80% to at least 85% - or else, someone would be found who could. He did it. He did it by sacrificing

machine speed to get his desired result. Unfortunately the plant was already out of capacity and the yield improvement was far less than the lost capacity from slowing down the machines. The business lost money – SVA went down.

In another similar case the plant manager simply out-sourced all the small volume products that had poor yields to a subcontractor with more appropriately sized equipment for these products. Yield went up. At the same time the plant manager's machines often stood idle along with their operators. The fee from the toll manufacturer far outweighed the (yield) savings.

There is a lot of SVA in choosing the right measurements to get all functions to behave for the good of the business and not just the function.

Full Absorption Costing:

This means product or service costing in a way that all overheads (burden) are allocated to products or services. The intent is to know whether or not a product or service is profitable – should we keep it or…? This practice has led to a lot of mistakes in businesses – for example, the out-sourcing example given above

Another example is a service organisation, one that executes projects for its clients. In this company project managers are evaluated on the profitability of their projects. They must buy internal resources at a fully allocated cost – with all the overheads. In a discussion about resource availability one project manager stated he had no problems with this. He does not even try to use internal resources, since this just leads to conflicts. He always hires sub-contractors. In this way he has no resource problems and he makes greater profits – because internal resources cost him more than the same kind of people from subcontractors. What has he done? He has optimised his (local) performance and probably he has hurt company performance (if internal resources are under utilised). What drives him to do this? Performance measures and full absorption costing.

Full absorption costing (no matter how it is done) has another problem. It gives a profitability ranking to be used by sales and marketing which does not take into account how we are using our constraint. In other words it often happens that those products that use our constraint most efficiently are not very far up the profitability ranking. What happens? Sales sells the products with the highest margins on a full cost basis and profits go down. For serious SVA DO **NOT** use any sort of full absorption accounting – not even ABC (Activity Based Costing). Use a system which tells you which products generate the most variable margin (sales – raw materials costs).

There is yet another way Full Absorption costing hurts a business. Many companies value their inventories at 'fully absorbed cost' – with all expenses allocated 'appropriately' to all products. This practise and the way it is implemented results in some counter productive effects. You ask your people to reduce their inventories. Good. They do it and because of this their profits decline in the short term – and they are punished. You want them to increase earnings. No problem, they will just increase inventories and 'hide' some costs there. These are the sorts of games managers will play to optimise their personal performance.

The easiest thing in the world is to keep another set of books – the books by which you will manage. (Wall Street is not a reason to not do it. Financial analysts understand very well the problems of full absorption and the games companies play with it.)

Full absorption costing of products and inventories helps no one make good decisions. In fact it often leads to decisions that hurts your company. On top of that 'good' product costing takes so much time and effort and yields so little, and it is obsolete almost immediately. If a business stops doing it a lot of talent is freed to concentrate on increasing profits.

Efficiency – We Must Use Our Resources Efficiently:

Using resources efficiently is a doctrine everywhere. Management wants to see everyone and every machine working all of the time producing. Not only management, as soon as a person has nothing to do for a while he becomes extremely nervous. He wonders whether he will be the next one out the door. So we all make sure that we are all always busy (or look busy) – no matter what!

Let us see what this causes in a multi-project environment. An environment where many projects are worked on at the same time and where the workers are usually working on more than one project at the same time. Should all the employees in such an environment be working as hard as they can all of the time?

Every project environment has a resource (or set of resources) that is overloaded. These people are the constraint of this project system. The other people are definitely not the constraint. However these other people have a need to look busy and their managers must be able to report the high efficiency. What usually happens?

The constraint resource is continually complaining and asking for more capacity. It is working overtime. It has a mountain of work waiting to be done, with no clear priorities on what should be worked on first (every project manager's project is the first priority). The constraint resource multitasks between many tasks and projects (depending on where the squeakiest wheel is) – losing time every time he re-starts on a task. It is a vicious circle. These constraint resources are blamed for the poor performance of the organisation. I would not be surprised to find a lot of frustration here – and a high level of manpower turnover.

What about the other resources? They are looking for enough work to keep themselves busy, to be 'efficient'. What does this do? It loads even more work into the system so that the constraint resource gets an even bigger backlog. The vicious circle gets much worse. Projects are delayed, SVA is lost.

What is the solution? Identify the constraint. Decide how to exploit the constraint. Subordinate everything else to the constraint. Etc. We already know who the constraint is – so how do we exploit his (her, their) capacity? We make sure that the constraint resource works on one task at a time, to the end – never interrupting a task. Will this help? Of course it will, but the priority project (yes you need to set priorities) gets done first and much sooner, and all the rest also finish sooner. What about subordination? Easy, the constraint resource dictates the rate at which new projects are introduced into the environment. Management's job is to prioritise the projects.

Conclusion:

To find serious shareholder-value-add executives are faced with the difficulty of finding the time to concentrate on this problem. The direction of the solution that is proposed here is that since a business is a system they need only focus on the very few things that are blocking making more and more money. {Clearly buying businesses in markets that are much more attractive is also a route to SVA, but both these acquisitions and the businesses being shed will benefit from focusing on the business constraint}.

Once an executive has found the way to delegate most of his work to focus on the constraint of his business he needs to start thinking about the policies and paradigms driving the behaviour of his organisation. One of the first steps he must take is to define the measures for his organisation: measures that will drive his people to the common goal of making more money now and in the future. With the help of some examples of business paradigms or behaviours, it becomes clear that the approach suggested here is a powerful way to spot and achieve really serious SVA!

Acknowledgements:

Almost all I have written in this article I owe to Dr. Eliyahu Moshe Goldratt - business thinker and educator. Goldratt is the source of the 'Theory of Constraints'. Much of Goldratt's thinking can be found in his 3 business novels The Goal; It's Not Luck and Critical Chain, which I can wholeheartedly recommend. Another source of Goldratt's thinking are his 'Satellite Tapes', a series of lectures by Goldratt on the subject of applying his theory to production, finance, project management, distribution, marketing, sales, managing people and strategy. These sources of information have been a tremendous influence on my thinking and I hope I have not betrayed Goldratt in what I have written here and that I have helped a little to get his message to more people.

There are many others active in the arena of the Theory of Constraints. To many of them with whom I have discussed this subject – Thank-you for your thoughts and support.