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The CEO's Guide to Six Sigma Success

**Thirty three common hurdles that can obstruct your Six Sigma program
Also contains useful tips for CEOs on how to review your Six Sigma projects**

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with a Foreword by Dr. Mikel J. Harry

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Foreword

This white paper is a "must read" for any executive contemplating the launch of a Six Sigma Program. The author's direct "hands-on" experience is most evident as he covers the many "lessons learned". The paper reflects a level of insight and wisdom that only comes after the personal experience of leading a Six Sigma effort. I would strongly recommend that executives and practitioners alike read this enlightening paper.

Dr. Mikel J. Harry

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(Dr. Mikel Harry was one of the original principal architects of the Six Sigma methodology at Motorola in the 1980's, and is the world's leading authority on Six Sigma. He is the founder and former Chairman of the Six Sigma Academy. He has coached leaders of many global corporations. Dr. Harry is the Chairman & President of the Six Sigma Management Institute).

Abstract

This Guide is based on the author's experience in leading the implementation of a highly successful corporate Six Sigma Quality program that has been recognized as a model for speed of implementation and results. In the first eighteen months, the program has resulted in 80% improvement in the company's customer satisfaction scores on impacted parameters and financial benefits of US \$ 18 million. It is also contains insights obtained from a study of Six Sigma programs at several other companies – both successful and otherwise.

The objectives of the Guide are twofold. The first objective is to share possible roadblocks or challenges that most organizations would encounter in their Six Sigma journey. It would help any organization from any industry in avoiding these roadblocks and shorten the time that it would take them to get real business benefits from their Six Sigma implementation. The second objective is to provide CEOs with useful tips on how to review their Six Sigma projects. Section 2 of this Guide is "The CEO's Guide to Six Sigma Project Review" and can be used separately as a pullout. It will help CEOs keep your Six Sigma reviews extremely effective, focused and brief.

While this is written as a "CEO's Guide", all members of senior management and Quality leaders would find it equally useful.

About the Author

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SECTION 1: Thirty three hurdles that can obstruct your Six Sigma program – and how to cross them

Hurdle Number 1: “We’re not ready for this!”

Have you heard yourself say this? This argument comes in two flavors – “Culture” and “Process”.

The Culture argument is that the organization is not yet culturally mature for the organizational rigor & discipline that Six Sigma requires. This rigor includes re-aligning performance appraisal systems beginning with senior management or releasing top performers from their operational roles into Black Belt roles for extended periods – typically eighteen to twenty-four months. (Black Belts are full-time Six Sigma project leaders).

The Process argument is that the organization needs to ensure complete business process discipline including mapping & documentation of all processes, putting measurement systems into place & availability of reliable data.

Cross this hurdle NOW

The right time to start is NOW. Needless to say, cultural maturity & robust business processes are critical to Six Sigma. However, there is no need to wait for these to happen before launching your Six Sigma initiative.

Make your organizational re-alignment plan part of your Six Sigma strategy or policy document. Immediately roll out the re-aligned performance appraisal system which reflects Six Sigma related responsibilities for all levels. Identify and move the required high-performers into their Black Belt roles along with your Six Sigma launch. They can hand over their operational responsibilities over the next few weeks even after they move into the Black Belt role. You can do both of these in a day or over six months – with equal effectiveness. Managing the change & possible resistance is an important requirement, but it is not a onetime activity that can be completed before Six Sigma launch – you need to make it an integral part of your Six Sigma journey.

Robust business processes, measurement systems and reliable data are the foundation for Six Sigma success. However, you need not wait for these to happen *before* you launch your Six Sigma initiative. Six Sigma projects will in any case whip processes and measurement systems into shape. Most improvement projects (typically these follow the DMAIC or Define-Measure-Analyze-Improve-Control cycle) require reliable data to analyze; and reliable data comes from dependable measurement systems. In the absence of these, the project team will put a proper measurement system in place as part of the project during the Define and Measure phases. They will not be able to proceed further with the project unless they do this.

Some organizations may prefer to do a formal Business Process Management or similar exercise to get their processes & measurement systems in order before formally launching Six Sigma. This approach is also sensible – provided it is completed in an intense, focused and time-bound manner.

Hurdle Number 2: Part-time Black Belts.

Do you hear the suggestion that people can continue their operational (read fire-fighting) roles and take on the Black Belt responsibility at the same time? This is the surest indication of absence of seriousness or commitment. It also indicates low levels of expectation of what Six Sigma can do.

Most failed or delayed projects are led by part-time Black Belts. These Black Belts are constantly pulled in two directions – to complete their projects and to attend to their operational responsibilities – and are unable to do justice to either. Delayed projects also lead to poor motivation levels among these Black Belts & their project teams.

Cross this Hurdle NOW

Root out the temptation to have “part-time Black Belts” ruthlessly. Have a relatively smaller number of Black Belts if necessary, but make sure they are all full-time. Also remember the Black Belt needs to be in the role full-time continuously for a minimum period of eighteen months in order to be able to deliver significant or breakthrough results. Your organization has made a significant investment in training Black Belts – make sure you are getting the full return on this investment.

Hurdle Number 3: “Can I borrow my Black Belt back?”

This is another disguise that the previous hurdle sometimes takes. In one company, a Black Belt was moved back to his operational role in the billing function “temporarily” after being in the Black Belt role for two months – due to “operational pressures” (a sophisticated name for inefficiency). Four months down the line, the operational pressures showed no signs of going away. Billing continued to be the mess that it was before and the Black Belt was busy putting out fire after fire.

In some cases, Black Belts keep shuttling between both roles. The impact of this is the same as part-time Black Belts. It also reflects absence of total commitment from senior management.

Cross this hurdle NOW

In the billing example above, after four months of fire-fighting, the Black Belt was moved back into the Black Belt role. He completed a Six Sigma project to improve billing accuracy and timeliness. At the end of the project, the company found it had no “operational pressures” in the billing function any longer. The Black Belt and his team had fixed the billing process and rooted out the problem instead of just attacking the symptoms, which they had been doing earlier.

Black Belts need to be in the role full-time for a minimum period of eighteen months to be able to deliver significant business results. Remember the work they are doing as Black Belts will put in place sustainable improvements in your business processes. This will eliminate the need for the fire-fighting for which you are planning to pull them back prematurely.

Moreover, a Black Belt is able to deliver bigger and faster results with each successive project because each project is a rich learning experience. They are able to deploy the learnings from projects they have done so far on future projects. By pulling them back

prematurely, you are denying your company much bigger results that the Black Belt would be able to deliver on subsequent projects.

Make absolutely no exceptions – whatever the immediate pressure. Never lose sight of the fact that the Black Belts work on projects that will put in place improvements that are “part of the process” – that will prevent “operational pressures” from happening in the first place. No work in your company can be more critical than this!

Hurdle Number 4: “KRAs (Key Result Areas) aren’t everything...”

It is often argued that it is not necessary to change performance appraisal systems to reflect Six Sigma related responsibilities of all levels in the organization. In some companies, Six Sigma does form part of the appraisals, but is given insignificant weight. In one company, after months of negotiation, Six Sigma was given 5% weight on the CEO’s KRA – as a favor to the Six Sigma leader. Not surprisingly, – the time spent by the CEO on reviewing Six Sigma projects and the results obtained were also similar - about 5% of the target.

Cross this hurdle NOW

KRAs are certainly not *everything*, but *nothing* else will work without this. None of the organizations that have achieved breakthrough results through Six Sigma year after year have done so without re-aligning their appraisal systems. While other forms of rewards & recognition systems will help, they are at best additional motivational factors and not substitutes for specific Six Sigma related measures on the appraisal system. The proportion of senior management’s time and attention that Six Sigma projects get – and therefore the business results that your company will get from Six Sigma -is directly proportionate to the weight that it is given on their KRAs. This is particularly true in the initial few years, till Six Sigma gets embedded into the organization’s culture.

The surest indication of top management seriousness is re-alignment of the performance appraisal system. Re-align your appraisal criteria *now*, begin with top management and make sure you are giving Six Sigma significant weight.

Hurdle Number 5: Forcing Black Belts into this role.

In one company, three people - who were rendered redundant following an organizational restructuring -were told that they would have to become Black Belts if they wished to keep their jobs. Naturally, they agreed – and were put through an expensive Black Belt training program. The company had a total of twelve Black Belts. At the end of a year, only these three Black Belts had not completed or had abandoned their projects.

Cross this hurdle NOW

Never force people to get into the Black Belt role unless they are excited and enthusiastic about it. While Six Sigma Black Belt experience and certification could be major stepping stones in one’s career, some people might be perfectly happy to continue in their functional roles. Respect this. Do a proper job of communicating how critical the Black Belts are to the organization and the value it can add to a person’s

career. Answer people's "what's in it for me" questions, but in the end, make sure people move into the Black Belt role because they want to.

Hurdle Number 6: "We'll do a hundred projects this quarter..."

Some companies set their targets in terms of the number of projects they do. The number of projects by itself is not necessarily an indicator of Six Sigma success. Particularly in the initial stages, it could lead to a large percentage of projects being delayed or abandoned, and this could be frustrating. Also, in their quest to identify a "hundred" projects, companies may identify "saving photocopier paper" kind of projects, which are no doubt beneficial, but do not require Six Sigma.

Cross this hurdle NOW

Identify a manageable number of critical projects that are top priority for your company. This is particularly important in the beginning. Taking a relatively small number of critical projects and successfully completing them on schedule brings "quick hits" and helps in ensuring complete buy-in across the organization.

Hurdle Number 7: "I want results in one month"

Some CEOs want instant results. In some cases, project champions think they know the solutions even before the project starts. When the project schedule is being decided, they tend to set over-aggressive timelines. These timelines almost always end up getting overshoot once the project rolls. Gradually, people stop taking these deadlines seriously as they are almost always reset.

Cross this hurdle NOW

Remember that data collection & analysis requires a reasonable amount of time. If results could be produced overnight, you probably wouldn't have required this project in the first place. Set realistic timelines & stick with them.

Also, during your project reviews, do not allow the champion to start with showing you what corrective actions they have planned. Insist on *first* seeing the data and root-cause analysis based on which they have identified these actions.

Hurdle Number 8: "We've never had such huge R&R 'costs' before..."

You may hear some protests against the expense on rewards & recognition (R&R) for successful project teams.

Cross this hurdle NOW

Highlight the fact that Six Sigma has brought breakthrough results and not some marginal benefits here and there. Measure the direct financial benefit – cost reduction or revenue enhancements through Six Sigma projects – and show the organization how significant it is as a percentage of net profit. Annualized financial benefits from Six Sigma equivalent to between 25% and 50% or higher of the company's net profits are

not unheard of. Also highlight the impact of Six Sigma projects on specific attributes of your Customer Satisfaction survey. Set aside a certain percentage of the financial savings through Six Sigma projects for R&R. Comparing this year's R&R expense with last year's in absolute terms may not be meaningful.

Involve the protesters in Six Sigma projects in their own functional area so that they can experience the benefits themselves. Finally, educate the organization that R&R is not a cost, but an investment.

Hurdle Number 9: Over-scoping of projects.

CEOs or project champions occasionally tend to over-scope projects. Over-scoping may take two forms – either the project scope may be too wide or the target for improvement may be too aggressive. For example, “reducing customer complaints” may be too broad for a single project. On the other hand, a target of reducing complaints per 100 customers per month from 10 to 1 may be too aggressive a target for a single project.

Cross this hurdle NOW

Projects with scope that is too broad must be broken down into multiple parallel projects; e.g. “reducing customer complaints” may be broken into several projects such as “reducing technical complaints”, “reducing billing-related complaints”, and “reducing sales-related complaints”.

Projects with targets that are too aggressive must be broken down into multiple sequential projects; e.g. in the above example, the number of complaints in a month for every 100 customers may be reduced from 10 to, say, 5 through one project. On achieving this target, this project should be formally closed. If it is felt that there is scope for further improvement, a subsequent project may be taken up to reduce this further.

Set a general rule for your company on the time period that most Six Sigma projects will require. This could be between four and six months. Scope your projects and set your targets so that projects can be completed and targets achieved within this time-frame. Over-scoped projects tend to go on and on without closing, could be extremely de-motivating to your Six Sigma teams and will dampen your company's Six Sigma program.

Hurdle Number 10: “The CEO is too busy this month; can we do the review later?”

Cross this hurdle NOW

This is a sure recipe for disaster. *Nothing* should stop the CEO from reviewing Six Sigma projects at least once every month. Remember you identified these projects based on your “Big-Ys” or big business imperatives. Six Sigma projects help the company achieve its strategic business objectives – and therefore must figure right on top on the CEO's agenda. Also remember, this is one responsibility you *cannot* delegate.

Hurdle Number 11: Project Champions -they can make or break your Six Sigma success.

Many companies do not give enough importance to the role of Six Sigma Champions. Champions are typically functional heads who report directly to the CEO. Each project primarily impacts a functional area and the head of the function is the project champion. For the Black Belt or project leader, the champion is the immediate beneficiary or customer for the project. Projects where the champion takes an active interest have a high rate of success. Ask yourself the primary reasons for failed projects in your company. While there could be several, chances are that a common reason you would find across all failed projects is an indifferent project champion. The best Black Belt and team members in the world cannot produce results without a champion who wants the project to succeed.

Cross this hurdle NOW

Ensure that *only* Champions are accountable for success of Six Sigma projects as far as the CEO is concerned. In the CEO's monthly review, it must be the Champions who present the progress on their projects and not the Black Belts or Green Belts. Six Sigma related measures must also form a significant part of the Champion's performance appraisal. If all this is in place, Champions will regularly review their projects with the Black Belts or Green Belts and ensure success. Champions are only doing themselves a favor – remember they are the primary beneficiaries of the project.

Hurdle Number 12: Black Belts or Green Belts getting into "analysis-paralysis".

You may encounter the occasional project where the project leader deploys various statistical tools that they have learned during their training, but is unable to translate all this analysis back into what are the implications for the business.

Cross this hurdle NOW

Come back from the statistical world to the real world. Constantly remind all project leaders about what they learned during their training on "converting a business problem into a statistical problem" for ease of analysis *and* on completion of their analysis, "converting the statistical problem into a statistical solution" and finally "converting the statistical solution into a business solution". The project leaders may need help from champions or other team members with domain knowledge of the function to keep the project close to the ground and to ensure that they do not get lost in "statosphere".

Hurdle Number 13: Passing off routine operational work as Six Sigma projects

A sales person took up a Six Sigma project to achieve a revenue target. Isn't this the job of this person anyway?

Cross this hurdle NOW

Constantly ask yourself whether this is part of somebody's routine operational work. Occasionally, the line dividing routine work and what would qualify as a Six Sigma project may seem blurred. An easy way to make this distinction is to ask yourself just one question : "Is the project aimed at putting a permanent, sustainable improvement in place?". If the answer is yes, go ahead with the project. In one company, a project initially targeted just achieving a revenue target. On realizing that this cannot qualify as a Six Sigma project, the project scope was enhanced to include a permanent systemic improvement – in this case, putting in place a key-account management process. Incidentally, they did achieve the revenue target once the process was in place – and have been achieving the target consistently quarter after quarter even after the project was closed.

Hurdle Number 14: Team members do not “show up” or “do their bit”.

A frequent grievance expressed by Black Belts or Green Belts is that their team members do not have time to work on the project or do not show up for team meetings. This results in project delays.

The real reason for this is that team members do not have the motivation to make the project succeed. They either do not know why they are doing the project or their “what's in it for me” question has not been answered. In some cases, the team member's immediate supervisor has no stake in the project and pressurizes the m to give priority to their operational tasks at the cost of their role in the Six Sigma project.

Cross this hurdle NOW

Share the bigger picture with all team members and their functional supervisors. Make them understand what the project can do for the business and how it will help them in their own function. Motivate and empower team members to participate in the project. Rewards and recognition for successful projects must be not only for the project leader but for all team members. Their performance appraisal must include their Six Sigma role. Team members must be empowered to spend time on the project and not required to seek permission from their boss every time they need to attend a project team meeting. In addition, it is important to train Black Belts and Green Belts in team leadership & motivational skills so that they are able to keep team members engaged and get results out of the team.

Hurdle Number 15: “This will not work in Sales”... “This will not work in HR”.

It is sometimes argued that Six Sigma will not work in certain functions. Haven't you heard this before : “Sales is an art... it requires thinking on your feet... you cannot put a process to it”... OR “HR is about people... it is too subjective for these statistical techniques to work” ?

Cross this hurdle NOW

Six Sigma tools can be applied in all functions. Companies have successfully applied Six Sigma to improve sales processes to achieve significant and sustained revenue growth, increase the orders booked by each salesperson per week and reduce the

time it takes from the initial proposal to obtaining the order. Six Sigma has also been applied to successfully improve employee-satisfaction scores.

Hurdle Number 16: Project review presentations need to show *data* ... not English.

During a CEO's review, one project champion made a two-hour presentation containing eighty-nine PowerPoint slides. At the end of the presentation, nobody was any wiser about the project and its results than they had been before the review.

Cross this hurdle NOW

An effective project review requires only twenty minutes. If it takes you longer to review a project, it is probably a symptom that nothing much is happening on the project. You will notice that those projects that are progressing on schedule and have achieved real results take the least time to review. Doesn't take an expert to figure out which of these two categories the eighty-nine slide project belonged to.

Have a standard template on what you want the review presentation to cover and insist that the champion sticks to this. Allow no deviations. You will notice the difference immediately.

Ask a few specific questions on the project and do not allow any digression. Ask your champions these questions (*see Section 2 : The CEO's Guide to Six Sigma Project Review*). In the example above, during the CEO's next review, the same project that had taken two hours and eighty-nine slides to show no results – took 20 minutes and ten slides with specific answers to the CEO's ten review questions. The project closed successfully within a few weeks of the twenty-minute review.

Hurdle Number 17: Jumping to corrective action based on “brainstorming” or “domain-knowledge”.

Some champions or project leaders recommend corrective action right at the beginning of the project – even before they complete the Define, Measure or Analyze phases. If they knew what to do without needing any data or analysis, they probably would have done it by now and you wouldn't have required this project in the first place.

Cross this hurdle NOW

Avoid the temptation to jump to corrective action without proper data-based analysis. Brainstorming or domain-knowledge of the champion or team-members can provide hypotheses which must be validated with data. Identification of top categories accounting for about 80% of the problem and root cause analysis *must* be based on data. Failure to ensure this will result in quick fixes that may temporarily mask the symptoms but will not bring sustainable improvement.

Hurdle Number 18: A fluid project charter.

Do your project charters keep changing each time a project is discussed? Do you keep altering your project scope, the CTQ (“critical to quality” parameter or measure), target or other components of the charter? Worse still, do these changes happen verbally without making the changes in the written charter? If your answers to these questions are yes, it is a sure indication that the motivation levels of your project teams and the chances of your projects closing successfully and on time are pretty low.

Cross this hurdle NOW

The charter is a contract between the CEO (Six Sigma sponsor) and the project team. Treat the charter as seriously as any commercial or legal document. Freeze & physically sign-off the project charter early in the project. It must be signed by the project champion, project leader (Black Belt or Green Belt), quality leader (Master Black Belt) and the CEO. For those projects that would bring a financial benefit, the projected savings must be mentioned on the charter and signed off by the CFO.

Once the charter is signed, do not keep changing it. Naturally, there might be genuine changes required in the charter based on new information or data that was not available earlier. These changes must be formally inserted into the charter in the form of a change document and signed off again.

Hurdle Number 19: “That’s beyond my department’s control”.

A telecom service company’s order fulfillment process involved three broad steps - getting orders from customers, preparation of a work order (an internal document with some additional details for its installation teams) and actual delivery of the service to the customer. The Sales department’s responsibility was till the preparation of the work order. The Installation department then took the work orders and delivered the service.

The company started a Six Sigma project to reduce the time taken to provide the service to the customer. The Sales head was the project champion. The scope of the project was “to reduce the time taken from obtaining the customer’s order till preparation of the work order” because the rest of the process was beyond the sales department’s control.

After spending some weeks on the project, the company realized that it wasn’t getting any significant improvement because the bulk of the delays were happening after the preparation of the work order.

Cross this hurdle NOW

Remember the customer doesn’t care what your department is responsible for. Put yourself in the customer’s shoes and think “Wing to Wing”. Define your project scope based on what your customer expects and not based on what your department is responsible for.

The telephone service company redefined the project scope “to reduce the time taken from obtaining the customer’s order till confirmation by the customer that the service was delivered to their satisfaction”. The project team was made cross-functional to include team members from both Sales and Installation and they were made jointly responsible for the entire project goal “Wing to Wing”.

When the project closed four months later, they had reduced the time taken to provide the service to customers by 40%.

Hurdle Number 20: Need Black Belts? Take people who “can be spared”.

In most companies, functional heads are reluctant to release their best performing people from their operational role to get into the Black Belt role. They are, instead, willing to offer other people who are “available”.

Six Sigma projects are *the* most critical improvement initiative in your company. The successful completion of these projects contributes directly to achieving your strategic business goals. Can you afford to leave the most critical activity in your company to people who “can be spared” while your best performers are being wasted in fire-fighting?

Cross this hurdle NOW

Remember those fires wouldn’t be there in the first place if your best performers are made Black Belts. Also remember your company is investing significantly in training your Black Belts.

Have only your best performing people in the Black Belt role. The Black Belt role should be seen as a reward for good performance. Through proper communication, make your functional heads think beyond their functional silo. Make them realize that they are the leadership team for the entire company and need to think from the overall business perspective. Many companies have a leadership workshop at the beginning of their Six Sigma journey for the CEO and the senior management team. The importance of releasing some of the company’s best performers into the Black Belt role must be communicated and agreed upon at this workshop.

Hurdle Number 21: “No harm trying it out. Maybe it will work.”

All of us are aware of organizations which have a new “flavor of the month” every month. Is your company one of these? If you are planning to “check out” Six Sigma for couple of months before you move on to the next big thing, don’t even bother.

Cross this hurdle NOW

Companies get the kind of results that they expect (and deserve) from Six Sigma. A half-serious, hesitant Six Sigma program will get your company nowhere. Take your time to decide whether you want to do Six Sigma, but once you make up your mind, get into it whole-heartedly. If you are in it to “check it out”, you will get the same results as you got from all those other programs you checked out earlier none.

Hurdle Number 22: “Of course it’s part of the CEO’s agenda it’s item number 23”.

As part of its strategy-setting exercise for the year, one company I know came up with a list of strategic initiatives on the CEO’s agenda. Six Sigma was item number twenty-three on this list.

Two years later, they are yet to start their Six Sigma journey.

Cross this hurdle NOW

Without exception, companies worldwide that have got significant results from Six Sigma have one thing in common – it is among the top three agenda items on the CEO’s list and on the CEO’s *mind*. Remember it needs to be top priority on the CEO’s *personal* agenda and this cannot be delegated.

The other thing in common among successful companies is that the CEO’s agenda tends to be a rather small list. If the company has too many strategic initiatives, it is unlikely to be able to focus on any of them. They will eat up precious management and employee time all the same because each initiative on the list must have its share of committees and brainstorming sessions and meetings. Delivering results is another matter altogether.

Effective business leaders never let their companies lose focus from the real business imperatives – and have a small number of critical initiatives as part of their strategy to achieve these imperatives. These few initiatives then get complete attention and focus.

So, if you are the CEO, make sure your agenda is a small list and Six Sigma figures high up on your list.

Hurdle Number 23: “We *must* achieve Six Sigma on all our processes”.

Cross this hurdle NOW

Never lose sight of the fact that you are in the business of meeting your customers’ requirements profitably and *not* in the business of achieving Six Sigma. Remember Six Sigma is a direction toward which all your business processes must constantly move. What is important is this movement. As you move in this direction, the outputs that you deliver your customers through your business processes become increasingly consistent and defect-free.

Set aggressive but achievable targets for each Six Sigma project. On some CTQs, a mere half sigma improvement could mean significant real business benefits or savings. A good rule of thumb to set targets for a Six Sigma project is to increase the Six Sigma level on the project CTQ by One Sigma if it is currently at less than Three Sigma. If it is already at Three Sigma or higher, target an improvement of half Sigma. A word of caution here – this is only a rule of thumb – do not apply it blindly to all your projects.

While this is a general rule, there are techniques to measure your current “process entitlement” and achieve these, which your Black Belts and Master Black Belts will do for you.

Also remember depending on what business you are in and what process you are talking about, you may not need to achieve Six Sigma levels on all processes. In some processes, your customers may be satisfied if the process is operating at 3 or 4 Sigma and may not be willing to pay for higher levels. Your current systems and processes have an entitlement and improvements beyond the entitlement will involve additional costs. Evaluate this as you would evaluate any other investment in your business – e.g. a credit card company had a target that 90% of customers wishing to speak to a customer care agent must be connected within ten seconds. They had figured out through a customer survey that customers were willing to wait up to ten seconds provided they were informed by a recorded voice that an agent would attend to them within ten seconds. The company also figured out through a cost evaluation that the cost of reducing this waiting time below ten seconds would require additional agents and facilities, which meant significant costs – which customers would not be willing to pay for.

On the other hand, in some processes, even Six Sigma may not be enough – e.g. the Sigma level of airlines landing their aircraft safely needs to be higher than Six Sigma. 3.4 defective landings in every million is still too high (Six Sigma is equivalent to 3.4 defects per million opportunities).

Hurdle Number 24: “We need consensus of the top team”.

Some CEOs seek the consensus of their top team for all major decisions. If you wait for consensus for deciding your Six Sigma launch or aligning the performance appraisal system, you may never be able to move forward.

Cross this hurdle NOW

General Electric started its Six Sigma initiative because “Jack wanted it”. Jack Welch called Six Sigma the most difficult stretch goal GE had ever undertaken – yet he did not wait for consensus. In every company that has achieved significant success in Six Sigma, the program has been driven top-down in the initial years. You may not be another “neutron Jack”, but be prepared to be a benevolent dictator and make some decisions yourself.

Too much democracy can slow down your Six Sigma program. Dissenting voices will die away as people experience the results for themselves. Push your top team into the deep end of the pool – they will quickly learn to swim.

Hurdle Number 25: “Six Sigma is the job of the Quality department”.

Cross this hurdle NOW

Six Sigma is not a bunch of “Quality people” sitting in a corner of your company doing projects. Quality is the job of everyone in the company. Your Six Sigma program needs to be a mass movement involving every one of your people.

Your Quality department alone cannot make your company's Six Sigma program a success. However, having a few crazy people who are obsessed with your company's Six Sigma program and its success will certainly be a huge catalyst.

Hurdle Number 26: “We trained 200 people this year”.

One company spent over a year training a large number of employees on Six Sigma tools. The company however got no results because none of the employees did any projects where the training could be applied.

Cross this hurdle NOW

Six Sigma Black Belt and Green Belt training programs are different from most other training programs that happen in your company. The difference is that it is mandatory for the trainees to complete projects where they apply the knowledge obtained at the training program. In most companies, they receive their Black Belt or Green Belt certification only after completion of a certain number of projects.

Training, orientation and communication programs are critical to equip employees with the required skills and to make Six Sigma a mass movement in your company. However, your measure of Six Sigma success must be business results obtained from your Six Sigma projects and not just the number of employees trained.

Hurdle Number 27: “We stopped measuring the CTQ when the project was closed”.

Cross this hurdle NOW

The measurement and monitoring of performance on the CTQ cannot stop just because the project is formally closed. In fact, it is the responsibility of the project leader (Black Belt or Green Belt) – as an integral part of the project – to put in place a *permanent* measurement system or “dashboard” to enable measurement, monitoring and reporting of performance on the project CTQ on a regular (typically monthly) basis. During the Control phase of the project, the project leader and champion must jointly use this measurement system to monitor performance for about two to three months to ensure sustenance of results. After this, the project is formally signed off as closed. After project closure, it is the responsibility of the champion to continue to measure, monitor and report performance on the CTQ for ever – or in any case for as long as the CTQ continues to remain critical to the business.

Hurdle Number 28: “We will be successful because we hired the best consultant”.

Many companies hire external partners or consultants who are already experienced in Six Sigma implementation to help with Six Sigma strategy formulation, training, project selection and reviews. Typically, the role of the external partner is more during the initial six to twelve months, till the company is able to run on its own.

While a good partner would no doubt bring valuable experience and expertise, thus helping to build a strong foundation for Six Sigma, companies sometimes over-

estimate the role of the external partner. Many companies also blame the consultant if their Six Sigma program does not bring significant results.

Cross this hurdle NOW

Remember the old saying about taking the horse to the water. The best of external partners will show you the path and possibly hand-hold your company along the path initially, but only you - the leadership team - are responsible for the success of your company's Six Sigma program. It is up to you to get the maximum value from your consultant's expertise. The responsibility for success, the hard work and discipline that it requires from your company – beginning with the leadership team – can never be abdicated to consultants. The best partners will also tell you this upfront.

Hurdle Number 29: “This will not work in services”.

Some companies from service industries feel that Six Sigma and other quality models will work only in manufacturing.

Cross this hurdle NOW

As Philip Crosby put it, “Because of this mentality the price of non-conformance in service operations is twice what it is in manufacturing”.

If anything, Six Sigma is even more critical in services. In many services like telecom or banking or hospitality, unlike manufacturing, there is often no scope for any *quality inspection or testing* before customers experience their services. It is therefore critical for them to build robust, repeatable processes that will enable them to deliver quality service *right the first time – every time* to their customers consistently. This is what Six Sigma can help them move toward.

An additional challenge in service industry could be that some extra thinking and effort may be required in identifying the right measures (CTQs), defining *defects* and putting in place reliable measurement systems to measure these – which could be more straightforward in manufacturing.

Also do not forget, even in a manufacturing company, except for the actual production shop, most other activities are “services” anyway – e.g. sales, billing, collections, customer services, purchasing, etc. Each of these services must deliver quality services to their customers. According to Crosby, “Everyone is in the service business”.

If you are one of those who felt it would not work in services, you only have to look at examples of leading services companies – many of them global names – who have successfully implemented Six Sigma and benefited from it.

Hurdle Number 30: “We closed this project successfully ... but we can't figure out why customer satisfaction scores are going down”.

One company did a project on “reducing billing-related complaints from customers”. The project target was to reduce the billing complaints from over 4 complaints for every 100 customers each month to not more than 1 complaint. Five months later, the

project closed successfully, the target had been achieved and there were celebrations and rewards for the project team.

To the company's surprise, at the next customer satisfaction survey a few months after completion of the successful project, the customer satisfaction score on quality of billing had actually gone down compared to the previous score before the project had begun.

On analyzing the reasons for this, it was found that a large number of customer complaints had been categorized as *requests* instead of *complaints*. Complaints from customers who had not received their bills had been entered as "requests for duplicate bills". Similarly, customers disputing their bill amount were not "complaining", but merely "requesting bill verification".

On further digging, it was found that while *complaints* had reduced drastically over the last ten months, *requests* had increased equally dramatically during the same period.

Cross this hurdle NOW

Whom are we cheating? Do not even bother to make an internal measure or CTQ look good by such manipulation. The project champion and leader must realize that Six Sigma starts and ends with the customer and customers have a troublesome way of exposing such tricks rather quickly.

In this example, some of the project stakeholders chose to forget the customer temporarily, and ended up only fooling themselves for some time that they had successfully completed the project.

Leadership must send a very clear message to the entire organization, beginning with Six Sigma champions, that it will not accept such manipulation. Any such examples must be exposed across the organization so that they are never repeated.

Hurdle Number 31: "Six Sigma – the panacea for all ills".

One company found that its customer service agents were not polite when they took customer calls. Another company found that its field force that visited customers for after-sales service and repairs often visited customers without the company uniform and even without the company identification badge. At a third company, although HR had designed excellent induction material for orientation of new employees, a majority of employees were being put on the job without going through the induction program.

All three companies started Six Sigma projects to solve these problems. They formed project teams and had several rounds of meetings, but these projects weren't really taking off. While all these companies had successful Six Sigma programs and a large number of successful projects, the above three were among a small number of projects that had to be dropped or abandoned.

Cross this hurdle NOW

In the first two examples, the companies put their employees through a workshop aimed at instilling a mindset of customer-orientation and building pride in their employees. These will be reinforced through repeat sessions. They also introduced a

process of random audits of customer calls or visits by employees. Employees know that any of their calls or visits could be part of an audit.

For the employee induction problem, an induction process was created where an employee had to go through the induction program within fifteen days of joining the company, and take a quiz on material contained in the induction after another fifteen days. The process is strictly enforced.

While there is no doubt that Six Sigma can bring breakthrough improvements in business results in all functional areas, it must be realized that it is not the answer to EVERY problem. Other initiatives for culture building, managing change, building soft skills, adherence to processes, building a customer-oriented culture and instilling pride among employees in belonging to the organization must work in parallel and hand-in-hand with the Six Sigma program.

Hurdle Number 32: Manipulating the definition of “defect”.

A services company had an internal target that at least 99% of its invoices sent to customers each month would be error-free. The month it achieved this target of 99% accuracy, the company claimed it was performing at 100% of its internal target, and hence at zero defect, which means over Six Sigma level performance. In other words, the company’s definition of a “defect” was “any shortfall from its internal target”.

However, from the customer’s perspective (and customers – curse them -have an irreverent way of not caring for your internal targets) 1% of invoices had errors and therefore, the defect rate is 1%, which means 3.83 Sigma.

Cross this hurdle NOW

Never forget the basic lesson of “thinking wing-to-wing from the customer’s perspective” (see Hurdle Number 19). Also, remember you do not have to achieve Six Sigma on all CTQs – just keep moving toward it (see Hurdle Number 23).

The target performance level for each critical measure is a business decision to be taken keeping in mind the company’s requirement to “satisfy or delight customers profitably”, and its process capability. The definition of “defect”, however, must NOT be linked to your internal target – but entirely from the customer’s perspective. In the above example, the company redefined “defects” in this way. On the invoice accuracy measure, it acknowledged that its definition of “defect” was “any invoice which had an error”. It also acknowledged that its current target Sigma Level on this CTQ was 3.83 Sigma.

Remember nobody needs to certify you as a Six Sigma company. The real results of your Six Sigma movement will be reflected in your customer satisfaction scores, improved business results and sustained competitive success. Manipulating definition of “defects” on any one CTQ will only set a harmful precedent for similar manipulation on all CTQs in all processes across your company. Once this cancer sets in, it will be very difficult to reverse it. Avoid this temptation right from the beginning at all costs. It will make your entire Six Sigma movement turn its back to your customers and become inward-looking, defeating the very purpose for which your organization launched Six Sigma in the first place.

Hurdle Number 33: The “Intelligent Cynic”.

According to Dr. Venu Srinivasan, Chairman and Managing Director, TVS Motor Company, every organization has a small minority of employees who are recognized as highly intelligent but who are also highly cynical of any change initiative. Such people are a big threat to your Six Sigma program. Because of their intelligence, they wield considerable influence over their co-workers, and, because of their influence over others, their cynicism spreads rapidly to the rest of the people. In an atmosphere of cynicism & low expectations, your Six Sigma program is bound to fail.

Cross this hurdle NOW

Dr. Srinivasan advises that the first step before launching any change initiative must be to weed out the intelligent cynics from your organization. Put people who are high on intelligence, capability as well as enthusiasm in key Six Sigma roles such as Champions, Black Belts or Green Belts. They would work as early adapters or role models for the rest of your organization.

SECTION 2 : The CEO's Guide to Six Sigma Project Review

<p>Question 1 : Show your project charter. What is the Problem Statement, Goal Statement & definition of a Defect as per your charter? Is the charter signed off?</p>
<p>Question 2 : For the above Problem Statement, based on data you have collected & analyzed – and not based on mere brain-storming or gut-feel – what are the top 4-5 categories or main causes that account for about 80% of the problem ? Show your data & analysis.</p>
<p>Question 3 : For the above “top-few” categories - based on further analysis using data - what are the root-causes you have identified ? Show your data & analysis.</p>
<p>Question 4 : Based on the above root-causes, what corrective actions have you recommended ?</p>
<p>Question 5 : What is the status of implementation ? What is the completion date for implementation of each corrective action?</p>
<p>Question 6 : Due to the above corrective actions, what is the improvement in performance on the CTQ (critical to quality measure) on your Charter ? Show actual results for the last 3 months.</p>
<p>Question 7 : Is customer satisfaction (C-SAT) one of the objectives of this project? If yes, identify which specific attributes of the C-SAT survey questionnaire would be impacted by your project? Show the C-SAT scores on these attributes just before the start of your project and from each subsequent survey.</p>
<p>Question 8 : Is there a direct financial benefit due to this project ? Show your financial calculation. Has this been signed off by the CFO?</p>
<p>Question 9 : Is your project on track as per the original timelines agreed upon on the project charter ? Are you facing any roadblocks to successful completion of your project ?</p>
<p>Question 10 : As part of the project, has the project leader (Black Belt or Green Belt) put in place a permanent measurement system or “dashboard” to enable measurement, monitoring and reporting of performance on the project CTQ on a monthly basis ? During the Control phase of the project, have the project leader and champion used this measurement system to monitor performance for two to three months to ensure sustenance of results? Show the dashboard. Does the project champion take responsibility to continue to measure, monitor and report performance on the CTQ each month for as long as the CTQ continues to remain critical to the business?</p>

This Guide is for the CEO's review. In addition, the Master Black Belt or Quality Leader must review projects regularly along with the champion and project leader to assess and advise on Six Sigma rigor – including selection of the right Six Sigma tools at each phase of the project, the correct application of statistical techniques and on proper data-collection and analysis.