The Art of Project Management

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How To Increase Business Values With Efficient Project Management

A Leif Trulsson White Paper

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Introduction

Is it an art to run a successful IT or software development project? This is definitively a valid question, especially in the light of the information available about the success rate for IT projects and IT investments. If we look at the studies that have been made by the Standish Group, we see that only 28 % of software projects were successful in delivering on time, budget, and promise. 49% were under strong pressure due to failure to deliver on time and within budget. Also, there were great discrepancies in delivered functionality and 23% of the projects were total failures. All these problems cost a lot of money and billions of dollars disappear into the black holes on the IT-sky.

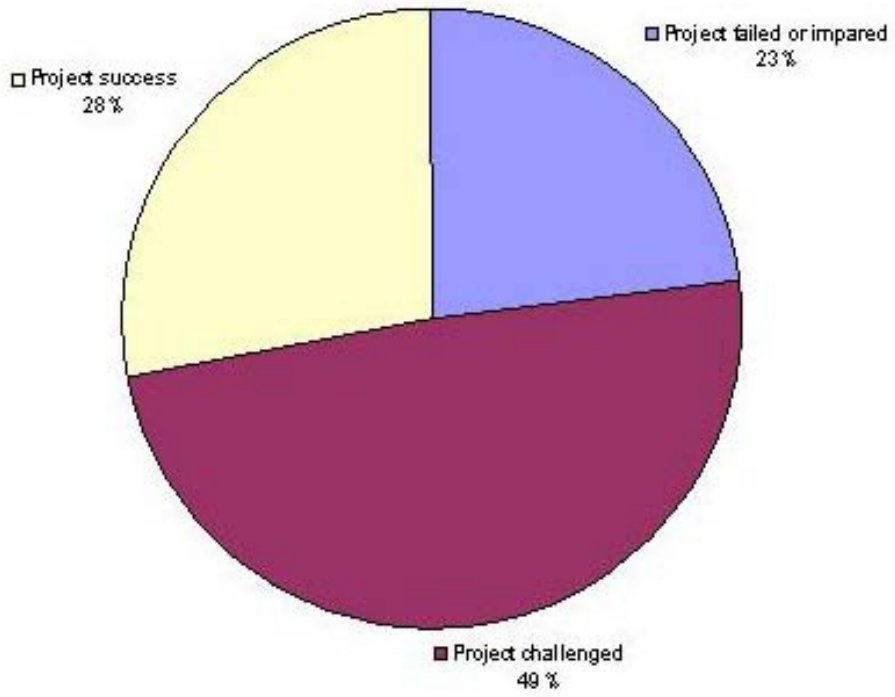

Figure 1. Project resolution

Some say that it is primarily the tailor made systems that are the source of these figures, but not so. These figures reflects all types of software projects, tailor made or purchased doesn't matter. The failure to deliver a working baggage handling system at Denver new airport did cost Denver city 1.1 million dollars a day. Nike for example, invested 400 million dollars in a new inventory control system from i2 without any success. Sobeys, a Canadian supermarket chain put the lid on a SAP project after having spent about 50 million dollars on the project. A management company spent tenths of millions of dollars

on an unsuccessful ERP project and then made a new attempt, just to see another 8 million dollars vanish into the black hole. And this is not unique for USA or Canada we see the same pattern all over.

In this white paper I will take a look at how you can beat the odds and how you can mix the right ingredients in a recipe for success.

Beating the Odds

Have you experienced an IT-project that didn't deliver on promise? If so, you are not alone. In the following sections we will take a look at how you can beat the odds by identifying the critical impair factors (CIF) and take advantage of the critical success factors (CSF).

The Critical Impair Factors

There are many factors influencing the outcome of a project but usually it is some of, or a combination of the following factors:

- **Lack of end-user involvement and/or organizational commitment**

This is one of the most common reasons why projects fail. The lack of end-user involvement and commitment is the first nail in the coffin. Without end-user commitment and involvement the risk of a *guerilla war* is very high.

- **Lack of requirements and specification analysis**

This is also one of the most common reasons behind project failures. You need to keep the requirement specifications and scope on a manageable level. When requirements specifications tend to reach the level of major novels the alarm bells should start ringing. Requirements should be necessary, attainable, and implementation-free. They should reflect what is needed and not what is wanted. And they should be implementation-free because they should reflect "what" shall be provided and not "how" – the how is a design and implementation aspect rather than a requirement, and should be left to the designers and developers.

The goal should be to reduce the requirements to the bare minimum. Changing requirements is as certain as tomorrow comes after today. By creating a minimal, obtainable base level of requirements, the effect of change will be reduced. By delivering minimal features you will also allow users and sponsors to see results more quickly.

- **Changing needs and requirement specifications**

This is a cousin of the previous one. Always remember Murphy's law –"*Everything that can go wrong will go wrong*" – Therefore never allow major changes to the requirement specifications during the project. Never change plane during flight – for example do not change infrastructure or architecture half way through a project. Research shows that infrastructure accounts for about 70 percent of total application code size, and changing

infrastructure half way through a project will have immense impact on a project's make-it or brake-it chance. Make a "wish-list" and attend to the new requirements in a separate project after the main project has finished. Many are the projects that have either failed or not delivered on time and budget because of changing requirement specifications. Remember, it is about 100 times more difficult and costly to attend to changes late in a project than in the early stages.

- **Lack of sponsorship**

Another common cause of project failure is due to lack of sponsorship. It is extremely important that major projects are run with a business focus and that executive management is involved and is focusing on the advancement of the project. With the right sponsorship and support from executive management the project stand a much better chance of a successful resolution. It is also important that the project is managed in an atmosphere of respect, trust, honesty, and reward. And remember never shoot the messenger when things start to go wrong.

- **Lack of resources**

This is a classic in most projects. Usually you try to manage the project with the few resources that you have at hand. Project members are supposed to participate in the project and take care of their regular job at the same time. This just does not work for major and critical projects. If a specific person from the line organization is needed in the project, it is much better to let this person fully concentrate on the project and hire a replacement for the duration of the project.

- **Immature or unproven technology**

Another common mistake is to base new development on immature or unproven technology. This is often due to insufficient requirements and impact analysis. The real needs and consequences have not been identified or wrong assumptions have been made.

Research shows that 70 percent of application code is infrastructure. Even though some of it might be unique to the application, most of it can probably be purchased from infrastructure vendors. So instead of inventing the wheel, the development team should concentrate on the business logic and rules rather than technology.

By using proven technology and infrastructure the task of integrating with existing applications is greatly improved. Remember never invest in technology just for the sake of technology.

- **Unrealistic expectations**

We humans tend to raise expectations to levels that do not correspond to realities or abilities. We see it every day, and it is for example a common phenomenon in the world of sports. If the expectations are totally out in the blue, this will have a severe impact on the acceptance of the result.

It is very important that there is a correlation between requirements, abilities, and expectations. Also, it is very important to not promise something that you cannot deliver. To raise the expectations by promising something you cannot deliver is asking for troubles.

- **Unclear goals and objectives**

That the goals should be clear is very obvious. And still, this is a very common cause of challenged projects. One reason why sometimes the goal does not appear as clear as one could wish is due to lack of focus. The scope is too wide, and you are trying to do everything at the same time. The result is often that you cannot see the forest for all the trees. This is often a problem in larger projects with longer planning horizons. Thus, it is better to split the project in smaller entities and manage them separately.

- **Lack of planning**

This is another classic where the most common mistakes are due to unrealistic optimism, lack of experience, and/or lack of knowledge. The most common mistake is that you are missing or have too few milestones or delivery schedules. Another common reason is that the plan is based on unrealistic schedules. Lack of planning often has a domino effect on resource, time, and budget plans.

- **Best before date expired**

Sometimes it just happens so, that the discrepancy between the map and reality is too wide. The advent of Internet was such a time. Change of ownership, mergers, acquisitions, or market changes are other such times. When this happens, there is no point in looking in the mirror, if the best before date has expired you just have to pull the plug as soon as possible, and then move on.

- **Lack of IT leadership**

Lack of IT leadership is often tied to the sponsorship, but could also be due to lack of insight and what is best for the business. To invest in technology just for the sake of technology, or to manage the project with an IT-focus are other examples of lack of IT leadership. It is also important that the executive IT manager has the courage to pull the plug when there are too many balloons and whimsy plans which have no chance of success what so ever.

- **Bad attitude between team members/developers**

It is extremely important that everyone on the project is working towards the same goal. Multiple agendas or personal priorities are no-can-do and should never be allowed to affect the progress of the project. A bad apple can spoil the whole basket. This is especially true for high-risk projects like large system development projects. Bad attitude

can badly affect the project and team morale, and it is very important to quickly put a stop to such tendencies.

If you cannot change the attitude of the individual, then it is better to replace that individual. Running a large system development project is like embarking on a long ocean race, and just as you do not want a mutiny on a ship at sea, you do not want a mutiny in mid project; rather let the individual disembark as soon as possible.

The Critical Success Factors

Is there any recipe that will increase the probability for success? The answer is yes! Even though the chance is less than a third, there are projects that do succeed. But as with all recipes, it is you how mix and balance the ingredients that will affect the final outcome. There are also a few project gurus that are masters in managing projects. They are not many, but they do exist and they are worth every penny. In the following sections we will point you to some of a projects critical success factors.

1. User involvement

Involve the end users from the beginning. Let them feel that they are part of the project. There is no successful project without the end user acceptance. You also need to help the users to feel and get comfortable with new technology. Set up demonstrations and training sessions where for example new technology is displayed and can be tried out.

2. Executive sponsorship

The sponsorship is very important for the priorities and focuses of the project, the higher the sponsorship the better. The most powerful and influential sponsorship is at the CEO level and when project goals are aligned with executive managements goals.

Executive support influences a project in many dimensions and with the right executive sponsorship, the project gets both the right level of attention and support, and the chance of success increases.

3. Assign an experience project manager

Hire the best possible project manager. In view of how few projects that ever really succeed the best project managers are worth their weight in gold. Never ever play this one cheap. This is the one most critical success factor that you can really influence. An experienced and successful project manager outweighs an inexperienced with a factor of hundred or even thousand to one. According to Standish 97% of all successful projects had an experienced project manager assigned.

4. Clear business needs and objectives

This is so obvious and still we forget this important rule. The business needs and nothing else should be the driving force behind our investments and requirements. Well-defined objectives are always a must. What is it that we are trying to achieve? What are the needs from a business perspective and what are the functional and nonfunctional requirements that we need to fulfill these needs? This could be the ten million dollar question, and whether the project is a success or ends up in the wastebasket.

5. Minimized scope

Never try to do everything in one big-bang. Scope impacts time and duration. By minimizing scope we reduce time and increase the chance of success. Minimized scope also mitigates risk and complexity. If for some reason the scope cannot be reduced to a comfortable level, it is better to divide the project into smaller, well-defined, sub-projects, and thereby minimizing the scope.

6. Standard software infrastructure

Do not invent the wheel! Research shows that 70% of application code is infrastructure. Even though some of the code is unique to the application, the bulk of it could probably be purchased from an infrastructure vendor.

Developers should concentrate on what is unique for the application. In other words they should concentrate on the business rules rather on the technology. This is especially true from an integration point of view. By using standard infrastructure technology makes the task of integrating with other applications much easier.

Another aspect of the choice of infrastructure technology is capacity. Many are the projects that have failed or run into troubles because the envisioned solution did not manage to handle hundreds or thousands of users. One example is the Internet solution for the Olympic Games in Atlanta, where new technology was implemented and deployed, and no capacity tests had been performed for the event of millions of users trying to access the results and information at the same time.

7. Proven methodology

Proven methodology is linked to the experienced project manager. An experienced project manager knows the trade and knows what works and what does not. Even though *one-size-does-not-fit-all*, and you have to tailor what ever methodology your are using to the project and people at hand, there are steps and procedures that are reproducible and reusable; thus, it enables you to minimize the tendency to reinvent the wheel and maximize the project-wide consistency.

We know that an iterative and incremental software development methodology is superior to a waterfall methodology. A proven and iterative process provides us with go or no-go decision checkpoints. It allows us to mitigate risk, manage change, and deliver

results on a regular basis; thus satisfying the sponsor and the end-user. An iterative methodology also promotes smaller milestones. Milestones should be set on a reasonable level. To short milestones hampers the progress of the project and to long milestones increases the risk. It is better to run a relay than a marathon; thus eliminating the risk of running into the "wall".

8. Team spirit

Remember that most projects are team efforts. Do not allow a "star" to steal the show from the rest of the team. Large projects are like sailing where everyone must work for the sake of the whole to be able to reach the goal. There is no place for divas on a project team. Let them disembark before they ruin the whole team.

9. Choose technology not competence

Choose the solution from a technology and functionality point of view and not from the competence at hand at the moment. For example it is wishful thinking and fantasies to invest in a solution for thousands of users based on products that are geared toward single users on stand-alone PCs or hobby products, just because this is the competence at hand at the moment. Some technology is just not designed for real-time, multi-user, and heavy transactional environments; and thus should be avoided. It is better to invest in a proven technology and then, if necessary, hire the right competency.

10. Do not shoot the messenger

It sometimes happens that the CEO or the management team over-reacts on not-so-good news. This is especially true on high-risk projects. It is very easy to overreact and start shooting with live ammunition as soon as someone starts issuing warnings. This is not acceptable. It is extremely important that a project is induced with core values like respect, trust, honesty, openness, and tolerance. It is better to pull the plug in time than not to pull it at all. And remember, there are no holy cows.

The Top 8 Essential Project Management Skills

As we have seen in the previous section about the critical success factors, assigning an experienced project manager to the project is very important. And even if assigning an experience project manager is only number three of the critical success factors, it is really the number one factor that we can influence the most.

In the following sections we will look at some of the skills that a successful project manager need to posses. The top eight skills required for effective project management are:

- Business skills
- Technical skills
- Project Management skills
- Decision skills
- Process skills
- Detail skills
- Organizational skills
- Communication skills

Business Skills

Research shows that project managers of successful projects had good business skills, while managers of challenged projects had fair business skills. Research also shows that having good business skills is the most important trait a project manager can possess. Without basic knowledge of the business objectives, the project manager could have a negative impact on the project.

Technical Skills

To be able to conduct an orchestra you need to be able to read the script, otherwise you will not know if all orchestra members are playing the same piece of music. The same holds true for a project manager. With good technical skills you are able to improve critical communication and translation between architects/designers/developer and users/sponsors. And just as a captain on a ship needs to have both broad and deep skills about various aspects of the ship and its propulsion, a project manager needs to have good technical skills to be able to successfully lead a project to its completion. A project

manager needs to be able to understand and envision various project components and how they fit into the whole.

Project Management Skills

This would seem very obvious and should go without saying, but still, this is often not the case. Many companies are assigning a project manager to projects without the key skills needed. To be a good project manager you need basic management proficiency such as time management, diplomacy, and good judgment. Just as any craftsmanship, a project manager needs to have the right skills and know the tricks of the trade. Coupled with experience, good project management skills have a greater chance of success.

Decision Skills

The ability to make the right decision at the right time is crucial in any leading position. To be able consider and pass judgment on issues at hand, and be able to reach a firm decision is a vital project management skill. Just as a captain on a ship or a pilot on an airplane needs to be able to act and react on issues at hand to safely take the craft to port, a project manager needs to consider hundreds of decision points throughout the course of a project. A bad choice could seriously endanger the project and have a negative impact on time, budget, satisfaction, and morale.

To successfully run a project you need to have good judgment and strong decision making skills. And just like other managers, project managers learn the trade the hard way — from their experience in the field and from both success and mistakes.

Process Skills

If you don't know where you are going any path will take you there. To manage a project in a specific direction, you need to plan, enact, and track a series of tasks, activities, requests, and changes. Just as a captain on a sail ship needs to keep an eye on the general direction and plan and execute a series of tacks to be able progress in the general direction, a project manager needs to be able to plan and manage both the major phases as well as the minor increments. Having both the skill and the understanding of how to apply a working process for the project is a key project management ability and greatly enhances the chance for success.

Detail Skills

The devil is in the details. The major difference between a general manager of a company and a project manager of a large project is the ability to attend to and understand details. The project manager must be able to consider and deal with questions related to various needs and requirements both individually and as a whole. The big-picture-only-view is for the executive sponsor; the project manager needs to be able to traverse between the

helicopter-view and the detailed view with great comfort. For example, the project manager must decide at the detail level what needs and requirements should be part of the project and when. Also, a detailed change-risk-impact plan must be in place to mitigate risk and manage change and their effect on the project.

Organizational Skills

As a project manager you must be able to organize the various project components into a working structure. To be able to organize roles and responsibilities, systems and processes, and a good infrastructure that supports the project is a key skill of a good project manager. The project manager must create and maintain a supporting structure that promotes the cooperation between project members, users, and sponsors. This also includes the use of various tools for collaboration and communication. A project manager that possess good organizational skills stand a much better chance to lead the project to a successful resolution than one without.

Communication Skills

One of the key traits of any leader is the ability to communicate. To be able to clearly express and exchange thoughts, ideas, and vital information such as business goals, business views, and business definitions are a must for any successful project manager. The project manager and the project members need to use to the organization's business dialect to keep communication simple and understandable to users, business owners, and sponsors. Good communication is the cornerstone of all successful projects, and a project with a project manager with good communication skills that uses the organization's business dialect, simple terminology, and avoids buzzwords and acronyms stand a much better chance of success than one without.

The Top 5 Project Manager Traits

The following are the top five project manager traits that you should be looking for and that are typical for an experienced project manager:

1. **Multilingual**—The project manager should be able to speak the language of business and the language of technology; thus being able to translate business and technical requirements between the business people and the technology people
2. **Gatekeeper**—By standing at the *gate* and scrutinizing every *wanted* extras with an Argus eye, the project manager should be able to reduce the requirements to the bare minimum — no *paralysis through analysis*— and minimizing the scope and thereby reducing time; remember wasted time is lost time and can never be recycled or recaptured
3. **Conductor**—The ability of a conductor enables the project manager to have all the participants work together and play the same tune; and just as a conductor is able to spot if anyone in the orchestra is not following the script, the project manager should be able to spot anyone not acting for the best of the project
4. **Cattle Driver**— Just as the project manager needs the ability to lead, the ability to keep the project moving is also very crucial; the project manager has to see to that the project progresses according to plan and that any lose ends are *round-up* and aligned with the rest of the project
5. **Pilot**—As a final trait, the project manager needs the ability to clearly articulate the requirements and progress of the project, and just as a pilot the project manager needs to be able to steer through unknown and hazardous waters and guide the project to a successful completion

Using The Right Tools

"The most important tools the team can own are a versioning and configuration management system and a printing whiteboard" – Alistair Cockburn

If you are doing any form of development, whether from scratch, assembling from components, or just modifications to existing code, the most important tool the project team needs is a software configuration management (SCM) tool. Apart from this you also need some form of collaboration tools. Here the whiteboard is at the lower-end and groupware or video conferencing systems at the upper end. If the project team and other stakeholders are spread out over geographically dispersed locations, a good videoconference system can save a ton of time and money, but can never totally replace the face-to-face communication and meetings. It is always a good practice to at least meet in person at the major milestones. Figure 2 illustrates the communication effectiveness for various communication channels.

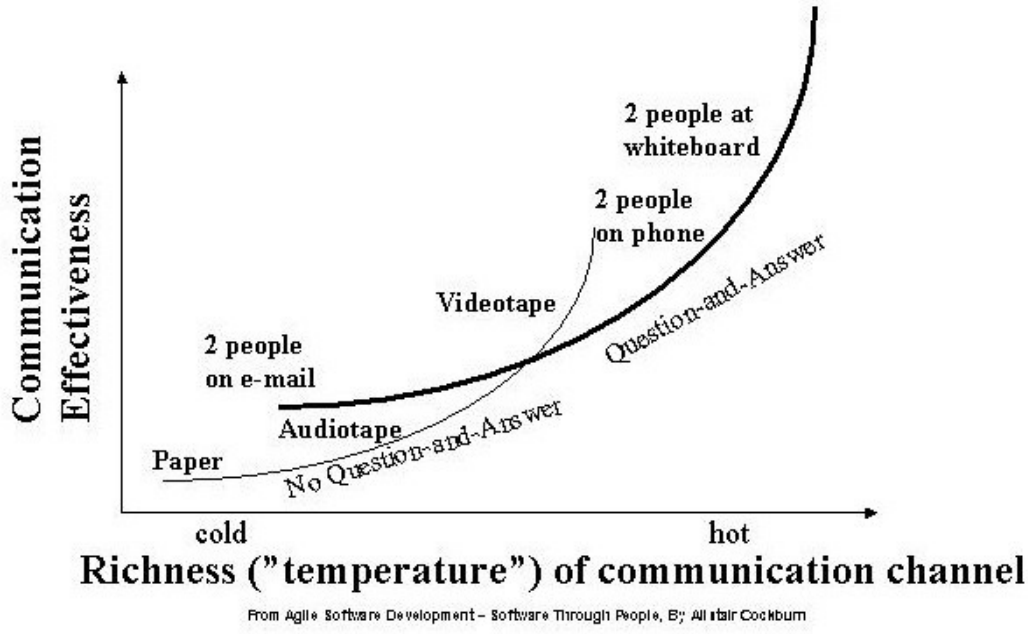

Figure 2. Communication channel effectiveness [2]

Apart from the above-mentioned tools, a good **requirement tool** can really have a big impact on the success of a project. As we have seen earlier, lack of requirements and

changing needs and requirements are some of the major critical impair factors. A good requirement tool together with a good SCM tool enables us to reduce the impact of changing requirements and it also provides you with a platform for communicating needs and requirements between all stakeholders, and can provide enormous benefits to the project.

Recipe for Success

Alistair Cockburn[1] says that **"*People are a first-order driver of a project's trajectory*"**. I came to the same conclusion several years ago. During a turbulent merger between two major Scandinavian competitors in the food industry, where I was head of IT for the bigger of the two, I came up with what I today call **"The Success Formula"** (see Figure 3).

Figure 3. The Success Formula

The Success Formula represents the foundation for building a successful organization. Whether it's in business, sports, or any other endeavor doesn't matter. The core values and principles are the same, and that's why we can view it as a law, as laws are universal and apply everywhere.

Clarity
A good friend and former colleague of mine use to say, that everything starts and ends with leadership. This also happens to be a vital part of ***The Success Framework*** and it's

also what **Clarity** is all about. True leadership is about formulating and making very clear a number of key components. Because without **Clarity** you and your team/organization are fumbling in the dark.

Clarity is about formulating:
- Clear leadership
- Clear vision
- Clear mission/purpose
- Clear values
- Clear goals
- Clear strategies
- Clear roles and responsibilities
- Clear and transparent information and communication
- Clear rules, policies and principles

Clarity is about eliminating any doubts, and makes life so much easier. And still, this is where so many organizations fail. In fact, I know companies that for many years didn't have any overall goals, or any strategies for that matter. And of course they failed miserably to say the least. So instead off being on the path from *good to great*, they were on the path *down mediocrity way*.

Some executive managers that I've met through the years, even believes in *Mushroom Management*, in other words keep everybody in the dark and spread the dirt on them. Personally, I believe in full transparency. If anyone is old enough, and skilled enough to work for the organization, they are also capable of hearing the truth.

One of the keywords here is **purpose**. You can have very clear goals, but if the purpose is murky or there is not defined a clear purpose at all, the goals are really irrelevant. As they say at Toyota – always ask why five times. Why are we doing this? Why are we going in the direction that we are going? Why are we having these rules, policies, and principles? Why are we hiring this person? Why, why, why, why, why?

Asking **WHY** helps eliminate any doubt and makes things even more clear. So be like the young child – ask **why**!

Respect
When I came to IBM back in 1977, one of the three *Basic Beliefs* was **Respect for the Individual**. The other *Basic Beliefs* where: The best Customer Service and Pursuit of Excellence, and together they formed the foundation for IBM growing into one of the worlds true and great industrial giants, and by many viewed as a "best managed company".

The following are three quotes on respect from Thomas Watson Jr., the former chairman and CEO of IBM.

"There are many things I would like IBM to be known for, but no matter how big we become, I want this company to be known as the company which has the greatest respect for the individual. (1957)" – Thomas Watson Jr.

"If IBM is to continue to be strong, to grow, and to bring profit to all of us in the company and to our customers and stockholders, we must be certain — constantly — that we are headed in the right direction, making the right decisions, and treating every employee with respect. (1961)" – Thomas Watson Jr.

"We accept our responsibilities as a corporate citizen in community, national and world affairs; we serve our interests best when we serve the public interest. We believe that the immediate and long-term public interest is best served in a system of competing enterprises. Therefore, we believe we should compete vigorously, but in a spirit of fair play, with respect for our competitors, and with respect for the law. In communities where IBM facilities are located, we do our utmost to help create an environment in which people want to work and live. We acknowledge our obligation as a business institution to help improve the quality of the society we are part of. We want to be in the forefront of those companies which are working to make the world a better place. (1969)" – Thomas Watson Jr.

Though many viewed the three *Basic Beliefs* as some of the reasons that IBM started to fumble back in the late 1980's and early 1990's, I personally don't believe in this. I firmly believe that it was rather the loss of focus on the three *Basic Beliefs*, together with a change in the core business model that was the root of the problems. The key to IBM's success was never about computers or technology, but about people and processes, and a mindset in the "pursuit of excellence". As Jim Collins, the author of *Good To Great*, points out: "IBM stumbled badly in the late 1980s because it drifted from its core values (which it should never have abandoned) while remaining too rigid in its strategies and operating practices (which it should have changed far more vigorously)."

Personally, the three *Basic Beliefs* of IBM are so ingrained in me, and I strongly believe that if you adhere to these beliefs you just can't fail. But this is where so many organizations fail. Since leaving IBM in 1997, I have come across a number of executives and companies that haven't got a faintest idea what **respect** stands for or is about. Just as the three Basic Beliefs of IBM was part of IBM's DNA and made it a great company, the lack of respect in an organizations DNA is a severe handicap.

So what does **Respect** mean?

"Do unto others as you would have them do unto you." In other words treat others the way you yourself want to be treated. Unfortunately though, many employers regard their employees the same way as they regard any other assets or products that may be used, abused or discarded at will. But on the other hand, some employers like i.e. IBM, did embraced their employees and made them partners in the growth of the company.

Everything starts and ends with leadership. So also when it concerns respect. It is my duty as leader to instill the values and create the circumstances/environment for the team or organization to succeed. If I have done this, I can expect the team members to function to the best of their ability and fulfill established, well defined, and obtainable goals. Under these circumstances, we may very well expect success from the individual or the team. However, if we for various reasons, *place an individual or team in an untenable or impossible situation in which the individual or team will fail to fulfill expectations*, that would be an act of disrespect.

I have met business leaders, that treat their employees with utterly disrespect, and as though they are less significant than themselves. They lie, cheat, deceive, and harass others as though they are supreme and more important than others. They don't seem to understand, that any time they are behaving deceptively or cruelly they are acting with disrespect and disregard for others.

Trust

All healthy and sound relationships are built on trust. Trust is like a bond or a lifeline, and trust needs to be earned. It takes time to build trust, but it can be ruined and gone in a fraction of second. Trust is also tightly intertwined with both respect and honesty. Take away any of these core values and what ever you are trying to build will come tumbling down.

Trust is such a vital part of our daily life that we don't even think about it. When we take our car to the road we trust the road signs and that other drivers stick to the traffic rules. When we board an airplane we trust the pilot and crew that they will safely bring us to our destination and we entrust them with our most valuable possession, our lives.

We hopefully also trust our government and other local or federal authorities, but in many countries that's not the rule of thumb. Even in a "developed" democracy it's often more a rule than an exception, that we really cannot trust our so-called leaders. Unfortunately powers corrupt, and real leadership is probably the scarcest resource of all.

But to be successful in almost any endeavor we need to build upon trust. In any successful team or organization the level of trust is very high. We trust the leadership and fellow teammates that they will always do their very best for the team/organization. Also on an individual level we need to trust our own abilities, skills, and knowledge. High achievers always have a very high level of trust in their own ability, and success can never be attained if we lack in trust.

When I joined the Customer Engineering department at IBM back in 1977, my first manager was what I call a rug-sack manager. He was not very supportive, and when you where on a customer call with a machine failure, he would call you every 15 minutes to check how things where going. This was really annoying, because every time he called you, your thought process was interrupted and you almost had to start the problem determination process all over again. He would also be easily fired up if the customer called him and expressed concerns about the fix progress. The problem he had was that

he didn't trust you, at least not well enough to let you do your job in the best possible way.

My second line-manger was the complete opposite. He was always 100% supportive and had complete trust in you. He knew that if you couldn't fix it within the expected time frame, you would call for help. This he also reassured any worrying customer that would call him. The complete trust that my second line-manager showed me and the other Customer Engineers in our group, was to become my own guiding principles years later as I became a manager myself.

Sometimes however, trust can almost become a burden. When I, during a number of years during the 1980s, was Country Specialist for IBM in Saudi Arabia, I was bestowed which such levels of trust, that I more or less received a cult status. Some of my colleagues had such great faith and trust in me, that they where totally convinced that if only I showed up at a site that had a serious system down problem, all problems would be solved. And I was lucky, because I managed to live up to these expectations every time I was called in as second line support, even when we faced some very difficult cases.

But not everyone is able to live up to the expectations that are put on their shoulders. We've seen this for example in the world of sports, where not everyone has the right mental strength to live up to the trust that has been bestowed upon them. So we need some moderation. Trust is good, but we also need to offer assistance to those whom we trust and have faith in.

Honesty
Honesty should be everybody's constant core value, but unfortunately it seldom is. Honesty is the bond between Respect and Trust, and when that bond brakes the whole foundation that success rest upon tumbles.

Honesty is the guardrail and an essential quality of clear communication. By being honest both to others and ourselves we show integrity. By being honest we play by the rules and we do not try to taint or mislead in any way. Sometimes honesty hurts, but at the end of the day it's the only way to go.

In his book "Good To Great", Jim Collins concludes that the Great companies by "confronting the brutal facts" are brutally honest with themselves. They do not let personal investments in ideas or past practice get in the way of reality. They create what Collins calls, "a climate of truth". But at the same time they have an unwavering faith that they can succeed.

In "Good To Great", Jim Collins also lists four basic practices in creating a climate where truth is heard:

1. "Lead with questions not answers."
2. "Engage in dialogue and debate, not coercion."
3. "Conduct autopsies, without blame."

4. ”Build red flag mechanisms that turn information into information that cannot be ignored.”

Unfortunately though, the same does not hold true for mediocre companies.

“Oh, what a tangled web we weave, When first we practice to deceive!” [Sir Walter Scott]

”Honesty is the first chapter of the book of wisdom.” [Thomas Jefferson]

Honesty must be more than a policy; it must really be one of your constant core values.

Reward
When I talk about reward, I’m not referring to the kind of hefty bonuses that we’ve seen in the last decade or so. That kind of reward is definitely not good for either the moral nor what’s best for the business or organization as a whole. That’s pure greed and nothing good has ever come out of greed.

Reward in this context is on the other hand good for the morale. To celebrate success and advancement strengthens team spirit and can act as the glue between project team, users, and sponsors. Many are the projects where a good get-together has worked as a catalyst and platform for further communication and collaboration in the project and thus contributing to the success of the project. But even a tap on the shoulder or a word of appreciation works wonders.

In the “old” IBM, the IBM that the Watsons built, reward and incentives were an important part in motivating and rewarding the employees for their contributions. Also spouses where, at least once a year on a local level, part of this appreciation.

Reward and appreciations don’t have to be on the grand scale like the old IBM HPC (Hundred Per Cent Club; for successful sales personnel), but could be a modest *Dinner for Two* or some other more modest token of appreciation. It was never the financial size of the appreciation that mattered, but the appreciation it self.

Confidence
Confidence is the launch pad that enables us to get off to a good start in our quest for success. Clarity, respect, trust, honesty, and reward create a sphere of comfort and security and are the pillars and foundation for achieving success. Together they make us feel confident and secure in our roles and abilities, and the team’s ability as whole.

Confidence means trusting our self and/or our team’s ability to succeed. Confidence is a state of mind, and an essential ingredient in achieving success.

Belief
"You can be anything you want to be, if you only believe with sufficient conviction and act in accordance with your faith; for whatever the mind can conceive and believe, the mind can achieve." – Napoleon Hill

No matter how confident we are or how secure we feel, if we don't believe in what we are doing we will not succeed. We have to feel it in our hearts that it's the right thing to do. You might have the skill and talent to do or achieve what it is that you set out to do, but if you don't believe that you will succeed you wont. The lack of belief and trust in your own (or the teams) ability becomes a self-fulfilling prophecy.

Commitment
"I believe that this nation should commit itself to achieving the goal, before this decade is out, of landing a man on the Moon and returning him safely to the Earth. No single space project in this period will be more impressive to mankind, or more important in the long-range exploration of space; and none will be so difficult or expensive to accomplish." — President John F. Kennedy in a special address to a joint session of Congress on May 25, 1961.

As I mentioned before IBM's three *Basic Beliefs* were *Respect for the Individual*, *The best Customer Service*, and *Pursuit of Excellence*. These three beliefs were also a commitment to both its employees and its customers. These were really strong commitments not only on a corporate level, but also very much so on an individual level, and the customer's needs really did come first.

The commitment to quality and to excellence gave IBM its unique strength. Even though cost was never an issue, cost issues were never ignored, but the focus was rather on price/performance. This meant that every option was considered in ensuring that the optimal solution was achieved. This was also the essence of the famous THINK campaign created by Thomas J Watson. The result was a unique degree of flexibility, coupled with intellectual application, which could then be overpowering to the outside world.

"Just because you are a character doesn't mean that you have character." — The Wolf, Pulp Fiction

The two most important key success factors in running IT projects are user involvement and sponsor support. Both these two factors are also commitments on the part of the users and on the part of the sponsor. Projects that lack these two commitments are more likely to fail than projects that have these commitments.

In January 2009 a new CEO took the helm at Procurator. His experience of successful IT projects was not very good to say the least. What he didn't understand though, was the critical impair and success factors involved, and the very important role that he himself played in the make it or break it of projects.

Without the right sponsor support, any significant project is almost certainly doomed to fail. It's the sponsor that sets the agenda and if the CEO is not backing up corporate wide projects in a clear and active way, the organization will take notice of this and will behave accordingly.

The new CEO at Procurator had never, according to himself, experienced any successful IT project. However, before he arrived at Procurator there had been more than 20 successful corporate wide projects during the previous three years. And sure enough, the first major project during his watch failed and he was personally very much responsible for the failure, as he made all the mistakes in the book and then some. In fact, it was totally impossible to succeed under the circumstances that he created. It's funny how often self-fulfilling prophecies becomes just that – self-fulfilling.

Commitment is the for-better-or-for-worst part. We need the whole heart to be with us. We need to be committed. We can believe in anything we want, but if we don't put our heart and mind to it, the chance of success is very dim.

Inspiration
Inspiration and motivation is the fuel that makes us tic. Money is a motivator if you don't pay enough, but you can take the money out of the equation by paying people enough. Researchers at MIT, Chicago School of Economics, and at Carnegie Melon University have found that there are three factors that lead to better performance and personal satisfaction:

- Autonomy
- Mastery
- Purpose

Autonomy, mastery, and purpose are what fuels inspiration.

During my professional career, I have always viewed every position or job I had as my company. I was running the company "Leif Trulsson" (autonomy) and my goal was to excel in everything that I did (mastery) and deliver the best possible service (purpose). In the beginning it was a one man company, but as I later became a CIO I viewed the whole IT department as an autonomous company and my aspirations was for the whole department to excel and under the given circumstances deliver the best possible service to our customers and at an unbeatable price/performance. And we did, and in the process we had a lot of fun.

So, feel inspired and have **FUN**! Some might even say if it's not fun it's not worth doing. In fact, inspiration fuels a whole industry, the entertainment industry.

The Success Formula — lays the foundation for success.

We need to increase both the Return on Investment for the business and the Return on Experience for the individual and the team. That's the true reward. Apart from a good team in place, we also need a winning recipe. Successful project completion depends on a few refined ingredients. Here is a recipe for success that works:

- Reduce the requirements to the bare minimum—no *paralysis through analysis* — minimize scope
- Provide constant communication systems and couple those with a standard infrastructure (70% of code is infrastructure)
- Mix it with:
    - Good stakeholders
    - An iterative development process
    - Project management tools
    - Adherence to key roles

And you are cooking. With the right mix of these ingredients, you are well off to success. But remember, too many cooks can spoil the stew. In fact, reducing the resources can increase your success rate. The fewer features, the greater the yield and the ideal size of a project team are four people, for no longer than four months. Remember: waste not want not.

Less is more!

And remember, we need to celebrate!

Conclusion: Efficient project management will increase business values

Art:

- Skill acquired by experience, study, or observation
- The conscious use of skill and creative imagination

Efficient:

- Being or involving the immediate agent in producing an effect
- Productive of desired effects; *especially***:** productive without waste

[Miriam Webster]

We started this white paper by asking if it was an art to run successful IT or software development projects, and the answer to this question is — yes. We have throughout this paper concluded that we stand a much better chance of a successful resolution if we assign an experienced project manager and use the right ingredients, tools, and methodology.

When we master the art of project management we will also be able to apply it in a very efficient way. And with efficient project management we will be able to provide key business benefits like:

- Mitigate risk
  - Iterative Development attacks highest project risks first
- Commit resources on a proven plan
- Improve software economics
- Provide a framework in which adjustments can be made as the project progresses
- Deliver on time and within budget

About the Author

Leif Trulsson is the originator of The Success Framework, The Success Principles, and The Law of Success 2.0. He is an author and co-author of several books on application development. Leif worked for IBM for more than 19 years in Sweden, Saudi Arabia, and USA, and has held specialist positions in both hardware and software.

Leif is a chartered engineer in telecommunications, he has held a number of C-level positions, including Chief Cyberspace Pilot, and he is relentless in his search for success and excellence. He has contributed to a number of organizational turnarounds, mergers, and successful project implementations. He is also a dedicated student at the University of Life.

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