

Project Success - Guaranteed¹

Presented by David Gardiner

Strategic nature of projects

The very size and nature of projects suggests that they have significant impacts on people, on the way things are done in the future and the physical environment that surrounds the project outcome. In many cases there is no option but to go forward. It is impossible to go back to the former state.

The Millau viaduct project has made a significant effect on the people and the environment around Millau in Southern France. Prior to the bridge being built, there was continual traffic congestion in the town in the valley. Now the bridge misses out the valley completely and spans from one mountain to another at a height that places it in the clouds. A project like this could easily result in an eyesore, but the design of this structure is an elegant and beautiful art form.

The Millau viaduct is a cable-stayed bridge over the River Tarn in France. It cost €394 million and took 39 months to build, is 393 metres high at its highest point, carries vehicles at 270 metres above the ground and was opened in December 2004.²

By definition, each project must be successful the first time. An organisation does not want to repeat a project if the first attempt has to be scrapped. Failure is simply not an option. The cost of most projects is too high and the disruption caused is too much. This also means that sufficient funds have to be allocated to the project and the project has to deliver within the scope of allocated resources.

Major events such as an Olympic Games have published dates for the events to start. Event management projects must be ready on time and any completion delays are untenable.

The management skills required for project management are essentially the same skills as those required for general management. Financial skills, purchasing skills, marketing skills, operational skills, supply chain skills, planning skills, health and safety skills, and information and communications technology skills are all required at some stage in most projects. All of these skills may not be found in one person, so the skill and ability of the project manager utilises the available resources to provide these skills in a timely and cost-effective manner.

Communicating, influencing, motivating, leading, resolving conflict, negotiating and other interpersonal skills are of prime importance to a project and these should be considered when selecting project personnel.

The first step towards a successful project is to obtain a project charter which is a clear statement from the sponsor that the project exists and that it is part of the strategic plan for the organisation. In other words, the organisation needs the project to be completed and will be better off when the project outcomes have been delivered.

The project scope is a description of the major deliverables, project objectives, project assumptions, project constraints, and a statement of work that provides a documented basis

for making future project decisions. It forms the basis of common understanding. The scope statement describes the purpose, history, deliverables, and measurable success indicators of a project and quantifies the support required from the customer. Contingency plans for events that could throw the project off course are identified. The project scope statement can be a persuasive document.

It describes what will be delivered to the customer, the assumptions that have been made in terms of outcomes and resource availability, the constraints that have been identified as well as the overall objective of the project. This statement is absolutely crucial in terms of project success.

However, ultimate project success is measured by the customer. The customer's perception must match the project team's perception.

Perfect project

The perfect project creates exactly the right value for the customer. It is acknowledged that value is hard to define but each project must be valuable, capable, available, adequate and flexible.

To be valuable the project outcome has to be recognised by the customer as adding value and not adding cost. A capable project outcome operates in a manner envisaged by the customer and can deliver the same satisfactory result every time the project outcome is used. The concept of being available suggests that the project outcome is able to be used every time it is necessary without failure. An adequate project outcome has enough capacity to perform desired functions when it needs to be performed without waiting. Flexible project outcomes are lean and can adjust to changing customer requirements.

Process view of projects

Customers change, customer requirements change, technologies change, and processes change.

Michael Hammer has changed the radical views that characterised his re-engineering approach of the 1990s in favour of a process view. In *The Agenda*³ he describes, in a very easy-going personable manner, why firms should be focused on process. His ideas on process can easily be applied to projects.

- Complete each project for the convenience of your customers, not yours. Customers do not complain about the project. Their complaints are usually about the project outcome, how they negotiate the project, how they communicate with the project team, how and when they receive project outcomes and how they pay for project outcomes. These are the real problems but they receive very little attention from traditional project management.
- Give your customers what they really want. In other words deliver more value add. To achieve this, the project team has to understand the customer needs and develop project outcomes that are flexible enough to deliver exactly what the customer wants when they want it and how they want it.
- Put processes first. Process thinking is not about overhead allocation, resource constraints and project cost accounting, not about confusion, assigning blame and

delay; it is a discipline that delivers outstanding performance rather than relying on luck. Customers are happy with the outcomes on a sustained basis.

- Create order where chaos reigns. New ideas are encouraged with innovation but these ideas require a process to facilitate their development into products and services that delight the customer. Without a process the innovation wallows in the mud and takes forever to eventually reach reality.
- Measure it like you mean it. Traditional business measurement systems look at history and tell you (approximately) what has happened. The missing link is telling you what to do in the future to make things better. What we need is a structure to improve performance across the whole organisation. Make project measuring a function of managing not a part of accounting.
- Manage without structure. Do not infer from this that the way to go is disorganised. Management styles are flexible and adaptable and cooperative.
- Focus on the final customer. By focusing on the final or end customer the project team obtains an appreciation of the real customer needs.
- Knock down the outer wall – collaborate with customers and suppliers wherever possible.
- Prepare for a future you cannot predict. Institutionalise a capacity for change.
- Above all, make it happen.

Lean thinking view of projects

Lean thinking should be applied to projects. Lean thinking is a philosophy aimed at the complete elimination of waste by delivering what is needed, when it is needed, and in the amount needed. This means that only the required resources are used, quality is improved and delivery lead times are shortened.

The fundamental idea behind lean thinking is to provide project outcomes:

- Exactly as customers want them.
- At the place that customers want them.
- At the rate that customers want them.
- With perfect quality.
- With minimum delivery lead times.
- Without wasting resources.
- Thereby reducing the customer's time and hassle.

Customer requirements view of projects

Projects start with an understanding of customer requirements. Since projects create unique products and services, there is often no existing product to use as a basis. The project team starts with a concept and it is considerably harder to get customer inputs. The challenge for the project team is to create the project outcome so that it creates excitement on the part of the customer. Think back a few years and consider cell phones that take digital photographs. Who wanted one? Designers of cellphones that take digital photographs and digital video introduced a “wow” factor that has truly caught the imagination of millions of customers worldwide. Now think back and put yourself on the design project team of the early models. What are you going to do first?

Project management requires a careful balance between uncertainty and risk. Craig Davis identified uncertainty as a property of nature that resists quantification while risk is quantifiable and manageable.

During a project, knowledge is discovered but the objectives are often unclear, measurements of success are ambiguous and the process used to develop the outcome does not affect success or failure.⁴

The challenge with research is to overcome technology that may not work while the challenge with projects is to avoid products or services that may not be successful.

Quality view of projects

Quality is defined as exceeding or surpassing in excellence. Taking this high-level view, quality is an ideal; it is transcendent. Excellence is defined as being exceptionally good, having extreme merit and superiority. That was excellence. Now quality is exceeding in excellence; exceeding this lofty standard.

Quality is fitness for intended use as defined by the customer. The customer has a need for a project outcome and this need may be stated or implied.

Quality is the customer perception of value. Value is a measure of the benefits derived from a project outcome compared to what is exchanged in return. Both physical and functional requirements of a project outcome must be met when assessed by the customer. However, the price to be paid must not exceed expectation. Quality is not a price. It involves basic human reactions and psychology.

Quality is the degree of customer satisfaction with the project outcome's characteristics and features. Customer expectations are constantly changing and are often extremely difficult to define. The ideal expectation is the best possible. This may not be feasible in all cases so an ideal feasible is what should happen given the price or the industry standard. A desirable expectation is the standard that the customer wants to receive while a deserved expectation is the level of performance the customer ought to receive given the perceived costs.

Quality is conformance to requirements based on product attributes. This is a production-based definition of quality and it is identified by the absence of defects. Once the product has been designed to meet customer expectations and the customer has seen the specifications then it is reasonable to expect those specifications to be delivered.

Quality is not perfection; it is not a standard; it is not a procedure; it is not a measure and it is not even an adjective. Quality is everywhere and is used to evaluate how a specific need is satisfied.

Six sigma view of projects

Six sigma is a business improvement approach that seeks to find and eliminate causes of defects and errors in project outcomes by focusing on outputs that are critical to customers and generates a clear financial return for the organisation. It is a business process that allows organisations to improve bottom-line performance, creating and monitoring business activities to reduce waste and resource requirements while increasing customer satisfaction.

Business strategy has for a long time been based almost entirely on financial figures. Company performance measurement is almost entirely based on financial figures in

isolation. But what is the point of having a financial profit target, or a revenue target, if that target cannot physically be attained?

Six sigma is a proven tool set for driving and achieving transformational change within an organisation. It is a business improvement process that focuses an organisation on customer requirements, process alignment, analytical rigour and timely execution.

In its original form it concentrated on manufacturing variables, both controlled and uncontrolled, such as temperature, pressure, flow rate and time. It also improved the process output variables such as yield, waste, capacity, downtime and production rate.

This has now been extended to include non-manufacturing variables, both controlled and uncontrolled, such as communication methods, completeness, accuracy, training, inventory levels, shipping methods, promise dates, days of the week, seasons of the year and customer required dates. It improves output variables such as order correctness, delivery time, and package quality.

Six sigma applied to projects aims to align the project team to the right objectives and targets, to mobilise improvement, to accelerate results and to generate sustained improvement.

It has its foundations in statistics – well, that is where the name comes from. Originally it was termed \pm six sigma capability and it measured the variation of each process. The process had to be designed such that it was capable of producing \pm six standard deviations (sigma) of the process within the customer-defined process limits.

Six sigma allows the project team to identify the customer requirements and to design, and subsequently modify, project processes to consistently achieve nothing less than the minimum of customer requirements. Keep the customer happy, supply them with exactly what they want, and when they want it, and they will come back for more.

A concentration on increased reliability by making project processes more repeatable helps improve satisfaction, yield and efficiency. Resources are focused on the right outcomes.

Why projects fail

Projects fail when:

- The customer is not happy with the resulting product.

Additionally, project failure is likely to occur when:

- The project charter is not drawn up, or
- The project scope statement is not discussed and agreed upon, or
- The project creeps by adding function and features that have not been agreed to by the customer, or
- Not enough resources are available to complete the project on time, or
- Not enough time is allowed to complete the project in a quality fashion, or
- Expectations are not clear.

Why projects are successful

Projects are successful when:

- The project team delivers to the customer exactly what the customer wants, exactly when the customer wants it and exactly how the customer wants it, and

- The customer is entirely happy with the result.

Additionally, a successful project occurs when:

- The project objectives are stated clearly, and
- The best possible project team is assembled, and
- The project team develops and maintains a realistic and achievable activity schedule, and
- The project team takes risks and tries new methods and new technologies, and
- The project manager remembers that people can and do make a difference, and
- The project manager is willing to accept change but makes it formal by including scope changes in the scope statement and rescheduling activities accordingly, and
- The project manager maintains excellent communications and keeps people informed of changes and progress, and
- The project manager demonstrates real leadership, and
- The project team enjoys life and has fun!

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- 1 Based on David Gardiner, *Operations Management for Business Excellence*, Auckland: Pearson Education, 2008
 - 2 BBC News Tuesday, 14 December, 2004, 10:37 GMT
 - 3 Michael Hammer, *The Agenda: What Every Business Must do to Dominate the Decade*, New York: Crown Business, 2001
 - 4 C. R. Davis, "Calculated risk: a framework for evaluating product development", *MIT Sloan Management Review* Summer 2002 Volume 43 Number 4, p 73