Failure of Public Sector Programs; A Framework to Manage Success Criteria

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Abstract

Public sector projects/ programs are commonly criticised for having poor outcomes. One reason is that such projects have multiple key stakeholders each with differing opinions regarding what would represent a successful outcome. This paper comes from current research developing an ontology between project success outcome criteria and the personal and technical competencies that may assist in attaining those outcomes. The paper reviews the development of perceptions of project success and presents a framework to assist project managers to develop a broad based success criteria review in consultation with key stakeholders and to manage perceptions of project/ program success throughout the implementation period.

Keywords

Public Sector, Project, program, success criteria, stakeholder

Introduction

There is a perception that many major public sector programs and major projects are beset with implementation problems and much research has been undertaken assessing processes that may improve outcomes. This is reflected in Shergold's report "Learning From Failure" (Shergold, 2015), which noted "*Understanding both threats and opportunities can help to increase the likelihood of effective implementation*" (p. 4) and expressed concern about "*by the numbers of departmental staff, often in senior positions, who had no program management experience or qualifications*" (p. 45).

Whilst Shergold's report conclusions are essential reading, an important issue not covered in the report is the problem of defining success in public sector infrastructure programs. Such programs commonly have multiple key stakeholders, each of whom may have differing perceptions of what will constitute a successful outcome (or conversely a failed outcome). The public sector environment is also different from the private sector as it comes under more intense press scrutiny and a combative political culture.

This paper makes comment on some of the key developmental steps in the project management profession and associated concepts of project success. It challenges the perception that there is, or even should be, a uniform definition of success except in relatively straightforward projects with a limited number of key stakeholders. For major projects and programs in the public sector environment, a clear definition of successful outcomes becomes extremely complex. There is however, structure that can provide an outline for generic approaches to defining successful outcomes and an analysis of the development of such a framework is outlined.

Historic Perspective on Project/ Program Management and Success Definition

The need to manage the implementation of projects goes back far into antiquity (such as the major buildings, monuments and civil structures of Roman, Greek & Egyptian empires) with ancient examples being discussed by Walker (Walker and Dart, 2011) and Garel who outlined the project management expertise used in Florence Duomo project, 1420 to 1436 (Garel, 2013). Despite this historic depth the professional discipline of project management was only established in the 1950s and 60s (Stretton, 2007).

Historically, the management of projects was generally seen in the context of manufacturing and engineering projects and was undertaken by the professional given charge over the project; commonly a Project Engineer/ Architect or Construction Manager. Appropriate tools developed progressively and enhanced the ability to effectively manage processes (Stretton, 2007). These included the Gantt Chart invented by Henry Gantt in 1917, Critical Path Method (CPM) developed between 1956 and 1959, Project Evaluation Review Technique (PERT) developed in 1959 and Precedence Diagramming Method (PDM) developed in 1958.

Stretton (2007) states that the North American Trans-mountain Oil Pipeline project, managed by Bechtel (1951–53) was the first project specifically using a dedicated project manager. In Australia, the first company to start using specific project managers on developments was quoted as being the development company, Civil & Civic between 1954 -1955.

By the 1960's, project management was becoming a recognised profession, leading to the formation of a number of peak bodies including:

- International Project Management Association (IPMA) formed in 1965, now a federation of 55 member associations worldwide including AIPM and APM.
- Project Management Institute (PMI) formed in North America in 1969 but with chapters throughout the world.
- Australian Institute of Project Management (AIPM) initially called the Project Management Forum founded in 1976
- Association for Project Management (APM) founded in 1972 in UK.

Each peak body sought to standardise project management practice and to offer a certification status for suitably qualified and experienced project managers. Certification requirements developed over time to include a combination of qualifications, professional experience and the demonstration of appropriate technical and personal competencies. Project managers would reasonably see the application of these requirements as being implicit in creating successful outcomes for their projects.

Evolution of Perceptions of Project Success

As the project management discipline developed, attention inevitably started to focus on the outcomes that could be considered to demonstrate a successful project. Significant work has been undertaken, both by active practitioners and by academics seeking to clarify this surprisingly elusive target(Tabish and Jha, 2011). The historic development of approaches to project success can be categorised within four chronological periods (Jugdev and Muller, 2005):

Period 1: Project Implementation and Handover (1960s – 1980s). During this period, the primary approaches to success related to compliance to mechanistic criteria. Typical of this was the "iron triangle" of compliance to time, cost and scope (Atkinson, 1999) relating primarily to the implementation phase of the project and emphasising "hard skills" rather than interpersonal "soft skills" (Munns and Bjeirmi, 1996).

Period 2: Critical Success Factor (CSF) Lists (1980s -1990s). The period emphasised the concept of CSFs (defined as things that must go right for a good outcome). These included "soft outcomes" such as the level of satisfaction of various stakeholders (Lim and Mohamed, 1999) and an emphasis towards quality assurance (Munns and Bjeirmi, 1996). A distinction was also drawn between criteria for project success and project management success (Baccarini, 1999). This focused on the fact that good project processes could indicate a level of success in their own right despite problematic outcomes in the completed project.

Period 3: CSF Frameworks (1990s – 2000s). Atkinson extends the concept of the "iron triangle" to add three additional attributes; the information system, Organisational Benefits and Stakeholder/ Community Benefits to create "The square route" approach to project success (Atkinson, 1999). Other research suggests success be viewed from both a technical perspective and as a contribution to strategic mission outcomes (Jugdev and Muller, 2005) with others extending this to include the customer organization (Kerzner, 1987)

Period 4: Strategic Project Management (21st Century): Building on the previous work this approach includes the essential nature of an interactive relationship between client (project owner) and the project manager and emphasises four requirements as a minimum for success (Turner, 2004, Turner and Müller, 2004):

- The criteria for success should be agreed with stakeholders before the project starts and reviewed throughout the project life.
- A partnership relationship should be maintained between the project manager and client.
- The client should empower the project manager with sufficient flexibility to manage unforeseen circumstances.
- The client should take an active interest in the ongoing performance of the project.

Ongoing research into success factors has led to a broad spread of factors that show some commonality but cannot reasonably be considered to be exhaustive. The factors can be viewed in two broad generic groups:

1. Factors that may lead to an environment more conducive to a successful outcome. A wide range of studies (Inayat et al., 2015, Hwang and Lim, 2013, Yong and Mustaffa, 2013, Alzahrani and Emsley, 2013, Gudienė et al., 2014), being quoted as examples and provide a wide range of factors as diverse as force majeure conditions, latent conditions, project risk, project manager competency and local tolerance to corruption. Although some common themes can be identified there is little overall convergence in the factors identified (Padalkar and Gopinath, 2016).
2. Outcome criteria that facilitates a success target. Broad research has also been undertaken into identifying what outcome criteria may represent a successful project

outcome. A summary of outcome criteria from a number of these papers is provided in Appendix A. The structure reflects subcategories suggested by McLeod (McLeod et al., 2012) and Badewi (Badewi, 2016), with three major groups as outlined below:

- Core Outcomes: Direct measurable outcomes many of which would to be integrated into the contract documentation for the design and/or implementation phases such as strategic goals, timeline, cost, scope & quality objectives.
- Compliance to Project Management processes. This group may be considered as an entity or could be integrated into the outcomes for specific stakeholder groups. It will generally relate to required project management control systems and adherence to those systems.
- Stakeholder Satisfaction. This group reflects the measurable satisfaction level expressed by a wide range of stakeholders and can be considered in three subgroups:
    a. Implementation Group: Those directly concerned with the project's design and implementation such as the client, implementation project managers, consultants, contractors & suppliers.
    b. Approval/ Endorsing Bodies: These generally comprise Local, State or Federal agencies having a role in approving or endorsing projects and ensuring that implementation complies with intended legislative outcomes.
    c. Other Effected Bodies: This represents a broad range of people or organisations who will be impacted by the project and consider that they should have a say regarding acceptable outcomes. These may include end users, the general public, local businesses, community groups etc.

Discussion

The progression of the Jugdev & Muller (2005) periods of project success perception shows a clear indication, at least in the academic world, that there cannot be a single clear definable generic project success target. The profession has moved a long way from the early concepts of the iron triangle of a project being completed on time, to budget and to scope although these basics are still fundamental. During the second period there is a move away from simple technical approaches to a segregated approach of project success and project management success and this is reflected in the summary provided in Appendix A.

Success criteria relating to Stakeholders are often attributed to the client based on the "golden rule" principle (he who holds the gold makes the rule). The client is responsible for the original project brief, which becomes the core of later consultancy and implementation contracts and therefore defines acceptable outcomes from a contractual standpoint. Whilst the client's perception of a successful outcome is of course essential, it will certainly not be the only perception. If a client is not well informed or well advised there is a danger that this perception of success will be overshadowed by howls of protest from a range of other stakeholders who do not share those outcomes, as is too often the case in major public sector programs.

Anecdotally some years ago a recently appointed State Minister visited his land management organization and addressed executive and senior project staff. In his introduction, he made the statement "You must understand that your goal is to make me look good". Whilst the comment was made in jest, it was clearly understood that there was a key reality behind it. It is equally clear that the Minister (the office's real client) was not going to sit down and work out what that might mean for any particular program. This would be the responsibility of an organisation reporting to the Minister, often with senior project management experience, who would represent the Minister and would be regarded as the client organisation. In its simplest

and most generic form, success from the client's perspective may often comprise good core outcomes (on time, budget etc.) and with positive stakeholder responses (or at least with minimal negative press outcomes).

The Minister would not necessarily care about an audit of the implementation organisation's process compliance provided the outcomes were satisfactory. At the same time, the development organisation (in this example) would care deeply that process compliance was well managed. The organisation would also need to plan how to manage relationships with a range of stakeholders to optimise outcomes and their perception of success would add multiple layers to the Minister's broad goal.

This example shows a need to contextualize Turner's "Strategic Project Management Perspective" (Turner, 2004) that each project needs to start with a discussion which will determine success criteria for that specific program/ project not only from the perspective of the client, but also potentially from the perspective of a number of key stakeholders. This paper categorises these stakeholders into three subgroups (implantation group, approving/ endorsing bodies and other effected bodies). It should be noted that past research papers quoted in Appendix A barely comment of approving/ endorsing bodies as relevant stakeholder organisations. This may reflect the generic nature of past research with areas of professional endeavour not requiring such approval/ endorsement. In the construction and development environments, such approval is paramount and the inclusion as a key stakeholder group is considered justifiable.

Within each subgroup there is no suggestion that there would be a common appreciation of what would constitute a successful outcome. For example it would be normal for suppliers and contractors to have a relatively narrow approach to success as relating to achieving the range of outcomes in their specific contracts (including commercial outcomes for themselves) whilst project managers might have a bias towards a broader range including stakeholder satisfaction and successful fulfilment of agreed process outcomes etc.

To add a further degree of complexity, the formation of generic approaches to success perceptions from past research is complicated by a range of other potential confounding variables including:

1. Is success likely to be conceived in a similar manner in all professional environments? Project management is considered a generic profession with the natural implication that a qualified project manager can work equally efficiently on projects from any professional background disciplines. A review of research literature has provided a broad range of professional disciplines that have contributed to research outcomes and is shown in Table 1. It seems unlikely that success would be viewed in a common way in environments that are, for example, as varied as Engineering, Arts, Relief Aid and Education.

Table 1: Areas of Professional Endeavour

Engineering	Medical Research	Agricultural
Pharmaceutical	R & D	Education
Software	Information Systems	Financial Services
Legal Services	Aerospace	Procurement
Logistics	Insurance	Media
Arts	Relief Aid	Telecommunications
Utilities	Oil & Gas	Government

2. What impact does location or culture have on perceptions of success? Research on project phases (initiation, design, execution & termination) in an African and UK context concluded that western project management concepts are not universally valid (Muriithi and Crawford, 2003) and Diallo emphasises the importance of understanding successful outcomes within a cultural setting (Diallo and Thuillier, 2004). The writer's professional background is civil engineering and a couple of examples from direct experience provide an effective illustration of this issue.

    - The Department of Transport and Main Roads, Queensland had (and may still have) a unit in Cairns called the Remote Community Services Unit which worked with Aboriginal and Islander communities in Cape York and the Torres Strait Islands. On receipt of a request from a community the unit would undertake an investigation and design for a new/ rehabilitation project for engineering infrastructure (roads, airstrips, barge ramps, street works etc.). The resulting construction project team would comprise all suitable plant and operators available from the community with supplemental plant, operators and professional staff from the unit working together in a fully integrated manner. From a simple cost / time consideration, this may not have been the most efficient method of working. However, from the perspective of most community elders, one of the highest-level success outcomes of the projects was the level of experience and knowledge transfer that took place in association with the development and implementation phases of the project. The elders would probably not have specifically articulated this at the conceptual project stage unless they had prior knowledge of such benefits from other projects.
    - Whilst working in Namibia, Africa it was not uncommon to see project activities that do not make sense in a western developed environment. An example would be a team of 20 or 30 workers each with a pick or shovel strung at 2m to 3m centres along a verge alignment hand digging a trench for service conduits. The country has plenty of suitable equipment such as ditch witches and backhoes; why resort to such slow, labour intensive practices within projects? The answer was simply that the project would not be considered successful if it did not provide adequate employment opportunities in a country with a major unemployment problem. With no real social welfare system in the country, this project outcome

put meals on the tables of a large number of households. The social benefits in the project location more than offset any minor cost and time impacts from such labour intensive approaches.

3. In balancing the various and often-conflicting stakeholder voices there is sometimes a need to take a long term view (Tabish and Jha, 2011, Wilson et al., 1999). Many major infrastructure and development programs cause significant change and disruption to the lives and livelihoods of local residents, businesses and community groups. Perceptions of a good project outcome articulated by these groups at the concept design stage may be very narrow and often negative (don't impact us, don't do anything etc.). It is quite possible that the same groups would have a far more complete appreciation of the level of success some years after completion when real outcomes can be felt by the community.

4. Do perceptions of success even within the fraternity of project managers depend upon the professional backgrounds of the project managers themselves? Within an engineering context (and more specifically a development works context where the writer has worked for many years) it is common for project managers to be drawn from a range of professional backgrounds which can be simplified as those with:

   - Formal project management accreditations
   - Engineering accreditations but without additional project management accreditations
   - Other generic management backgrounds

   It could be anticipated that the discipline associated with gaining the competencies required for project management accreditation will generate a perception that the use of these competencies will lead to a good project outcome. This would provide a pre-conditioning of outcome success that would not necessarily be present in project managers without accreditation.

Whilst Turner (2004) makes comment on a project starting with a stakeholder discussion on success criteria this is not completely relevant in the context of public sector programs which commonly have multiple stakeholders and wide ranging agendas and perceptions of success. Given the degree of complexity involved in trying to fully assess and define broad based success criteria, particularly in major public sector programs, it is not surprising that few programs extend their criteria much beyond the basic technical attributes of time, cost, scope and quality. The following framework is presented as providing a systematic approach to establishing a more complete assessment and management approach.

Development of a Framework to Assess Success Criteria

A fundamental step in the initial phase of most project management methodologies involves a stakeholder assessment and the generation of a strategy for managing each stakeholder relationship. The proposed framework builds off this work to provide a parallel and interconnected success criteria framework. An example of an appropriate plan is provided in Appendix B.

The framework has the three generic success categories introduced earlier in this article.

a. Core Outcomes: Direct measurable outcomes anticipated to be integrated into the contract documentation such as strategic goals, timeline, cost, scope & quality objectives.

b. Stakeholder Satisfaction expressed in three subgroups –

    - Implementation Group: Those directly concerned with the project's design and implementation such as the client, implementation project managers, consultants, contractors & suppliers.

    - Approval/ Endorsing Bodies: These generally comprise Local, State or Federal agencies having a role in approving or endorsing projects and ensuring that implementation complies with intended legislative outcomes.

    - Other Effected Bodies: This represents a broad range of people who will be impacted by the project and consider that they should have a say regarding acceptable outcomes such as end users, the general public, local businesses, community groups etc.

c. Compliance to Project Management processes. May be considered alone or integrated into the outcomes for specific stakeholder groups.

Within each category, relevant sub-items will be established and success targets and management strategies will be identified. For example; "Stakeholder – Approval/ Endorsing Bodies" may include the Environmental Protection Agency (EPA) as a sub-item. Initial stakeholder discussions may lead to the following success targets generated from the EPA's perspective and acceptable to the client to fit in the project scope:

- Early and ongoing regular liaison
- Preparation of an environmental impact report early in the concept development to enable concept design work to integrate necessary report outcomes
- Agreed reporting processes throughout the life of the program
- Co-ordination prior to release of media statements on environmental issues

It is anticipated that a high percentage of outcomes will relate to the modes and timeliness of ongoing interaction with stakeholders as this is a common failure area in project delivery. The process has the advantage that it requires early discussions with stakeholders and focuses on achievable outcomes that can be accommodated within the project scope. The resulting project scope documentation then ensures that agreed outcomes are embodied into following design and implementation tender documentation.

Feedback on compliance to the criteria can be sought from stakeholders during meetings or electronically and should preferably use a scaled (Likert style) response with a comments range rather than a simple Y/N approach to allow a richer understanding of stakeholder perceptions.

An essential function of the success criteria framework is that it should be an ongoing management document allowing regular reporting, review and updating at key points as necessary to reflect changes that inevitably occur in all significant programs. Some preferred outcomes may be subject to later concept or detailed design confirmation that may lead to modification or abandonment at that time.

Conclusion

There is no simple generic set of success criteria that can be applied to complex projects or programs, particularly those in the public sector. In association with the preparation of a stakeholder management strategy, a success criteria framework can be developed which will help to clarify expectations of the broad variety of stakeholders commonly associated with public sector programs and assist in the management processes to ensure that stakeholder satisfaction is maximised.

Appendix A

Summary of Project Success Criteria

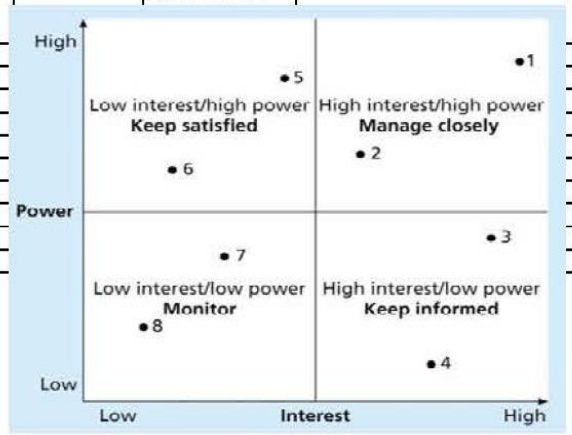
Criteria	Muller 2010	McLeod, Doolin & MacDonell (2012)	Bryde & Robinson 2005	Bryde (2005)	de Wit 1988	Geoghegan 2008	Zwikael 2006	Pankratz & Basten 2014	Westerveld 2002	Bakhsheshi & Nejad 2011	Atkinson 1999	Thi & Swierczek (2010)	Kerzner 1987	Belassi & Tukel 1996	Dvir, Sadeh & Malach-Pines 2006	Muller & Turner 2007	Muller & Jugdev 2012	Przemysław 2013	Pankratz & Basten 2014	Cserhait & Szabo 2014
Core Project Outcomes																				
On time	\	\	\	\	\	\	\	\	\	\	\	\	\	\			\	\	\	\
On budget	\	\	\	\	\	\	\	\	\	\	\	\	\	\			\	\	\	\
On Quality	\		\	\	\	\	\	\	\	\	\	\	\	\			\	\	\	\
Within scope		\										\	\							
Meeting user requirements	\	\	\			\	\			\	\					\	\	\	\	\
Reoccuring business	\															\				\
Reliable product																		\	\	
Compliance to Processes																				
Good project processes				\		\	\	\											\	
Good post audit analysis													\							
Stakeholder Satisfaction																				
a) Implementation Group																				
Supplier satisfaction	\				\			\	\		\				\	\	\		\	
Team satisfaction	\			\	\		\		\		\					\	\			\
Achieves its purpose	\				\	\	\			\	\				\		\	\	\	\
Client satisfaction		\		\								\								\
b) Approval/ Endorsing Bodies																				
																				\
c) Other Effected Groups																				
Other stakeholder satisfaction	\		\						\		\					\	\			\
End-user satisfaction	\	\				\	\	\	\		\	\				\	\	\		\
Customer satisfaction	\		\		\	\	\	\	\	\	\			\	\	\	\		\	
Community benefit															\					\

Appendix B

Sample Stakeholder Management Strategy

STAKEHOLDER MANAGEMENT STRATEGY

Log Ref	Organisation	Name/ Contacts	Position	Power/ Interest	Strategy	Interaction	Desired Involvement	Desired Success Criteria	Agreed Success Criteria	Client Approva	Stakeholder Feedback
1	A B Develop' ments	Mr. C. Lient	MD Development. Client	5/4	Ensure all stakeholders identified Discuss Consultancy Brief early	see log	Regular progress reports No surprises	All requirements of consultancy brief Early intervention with issues No bad press	As desired	Y	Seek satisfaction response 3 monthly Yr 1 then 6 monthly
2	Internal	Mark Jones	GM/ Project Services	4/3	Compliance to company PM processes	Regular compliance meetings	Monthly project reports. Periodic process audits	Pro-active management demonstrated Nil non-conformances	Ad desired	Y	Response to regular progress reporting
3	EPA	John Smith jsmith@epa.gov.au	Snr Liaison Officer, Development	5/5	Involve pre-concept design. Seek united approach.	see log	Early involvement + regular updates	See comment	Design to best practice Community perceptions to be well managed Regular meeting with EPA		
4											
5											
6											
7											
8											
9											
10											
11											
12											
13											



Project Title:	**Development AB Industrial Lands**			
Log Ref:	1	**Stakeholder Register**		
Organisation:	EPA			
Name:	John Smith			
Position:	Snr Liaison Officer, Development			
Email:	jsmith@epa.gov.au	Phone:		
Address:				
Interest Rate:	5	Comment:	Very high. John sees site as being potentially very problematic	
Power Rate:	5	Comment:	EPA can stop approval process and/ halt works if issues are not well managed	
Interaction Strategy:	Involve John at concept stage Seek regular update meetings Seek united approach for media interactions and community strategy			
Interaction Log:	*{Log of all informative interactions. Reference associated file documents.}*			
	3/4/16: Initial phone call. John happy for briefing 10/4/16: Initial meeting outlining proposed interaction strategy. John happy but needs approval for formal response.			
Desired Involvement:	*{Investigate extent of involvement sought by stakeholder without commiting to allow this without Client support}*			
	John generally happy with strategy but EPA needs to demonstrate independence. They will advise us of media responses only.			
Desired Success Criteria:	*{Consider each outcome group: Core Outcomes, Compliance to Processes & Stakeholder Satisfaction}*			
	Design catering for management of contamination and other EPA sensitive issues No registered environmental events No bad community perception			
Agreed Success Criteria:	Design outcome subject to best practice approach Community perceptions to be well managed Regular meeting with EPA to control process			
Agreed Satisfaction Feedback:	6 monthly satisfaction survey + end of project survey			
Client Agreement:				
Satisfaction Feedback Log:				
Report by:		Date:		

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