Series on Project Successes and Failures[1]

Article 2 of 6

Some deficiencies in published causes of project failures

By Alan Stretton

INTRODUCTION

This is the second article of a series on project successes and failures. The first article (Stretton 2014j) looked at varying criteria currently being used for project successes / failures, and at the very meager data on success / failure rates. The available data gave partial coverage of software projects and mega-projects success / failure rates, but next-to-nothing on any other project types or application areas.

It was concluded that it was vitally important for the project management community to establish and agree on success and failure criteria which are widely applicable; and for project researchers and practitioners to join forces to begin developing comprehensive success / failure data covering all significant project types and project management application areas.

This second article extends the range of the first article by looking at some published causes of project failures. It attempts a classification of these causes which might be useful in helping improve success rates at the three success levels discussed in the first article.

I found two listings of causes of project failures for software development projects, two for unspecified projects at large, and four for major projects and mega-projects. Whilst these are far too few to be in any way representative of the broader situation, some interesting data emerged, as will be seen.

Some 42 different causes of failure emerged, many of them repeated in various listings, as will be seen in the following four tables. The main groupings which emerge from these listings are (in descending order of frequency of citation):

- Project initiation-related causes of failure
- Project management (PM) operational-related causes of failure
- Lack of organizational support causes
- Project management (PM) leadership-related causes of failure
- Other (external) causes

[1] This series of articles on project successes and failures is by Alan Stretton, PhD (Hon), Life Fellow of AIPM (Australia), a pioneer in the field of professional project management and one of the most widely recognized voices in the practice of program and project management. Long retired, Alan is still accepting some of the most challenging research and writing assignments; he is a frequent contributor to the ***PM World Journal***. His author profile can be found at the end of this article.

The first two groups of causes of failure collectively comprise 70% of all causes sampled. These are then broadly linked to the three "levels of success" discussed in the first article. Some key linkages will be discussed in more detail in later articles.

Finally, a suggestion / challenge is made for the global management community to create a framework to develop and share project success / failure data, covering the widest possible range of project management types and application areas.

PUBLISHED CAUSES OF PROJECT FAILURE (1)

Table 2-1: Software development projects

Dalcher 2014: Software	Standish: Software Devel't (Morris 2013)	Combined Software Devel't
		Project initiation causes
Mgt of expectations	Unrealistic expectations	Unrealistic expectations (2)
	Lack of user involvement	Lack of user involvement
	Incomplete requirements	Incomplete requirements
	Estimating problems	Estimating problems
Commitment escalation		Commitment escalation
		5 **(6)**
		PM operational causes
Communication		Communication
Risk management		Risk management
Contract management		Contract management
		3 **(3)**
		PM leadership causes
Relationships mgt		Relationships mgt
Trust		Trust
		2 **(2)**
		Organiz'l support causes
	Lack of executive support	Lack of executive support
	Lack of resource	Lack of resource
		2 **(2)**
		Other (external) causes
Politics		Politics
		1 (**1**)
		Total different causes 13
		Cumulative causes nominated (14)

Analysis of cumulative causes

Project initiation-related causes	6/14 = 43%
PM operational-related causes	3/14 = 22%
PM leadership-related causes	2/14 = 14%
Lack of organizational support	2/14 = 14%
Other (external) causes	1/14 = 7%

PUBLISHED CAUSES OF PROJECT FAILURE (2)

Table 2-2: Unspecified projects generally

Reeson 2013: General	Morreale 2012: General	Combined General
Project Initiation		**Project initiation causes**
Unrealistic expectations		Unrealistic expectations
Lack of user input		Lack of user input
Unclear requirements	Lack of agreed requirements	Unclear requirements (2)
		3 **(4)**
		PM operational causes
Poor project planning	Poor project planning	Poor project planning (2)
Poor change control	Poor change control	Poor change control (2)
Poor project control	Poor cost control	Poor cost control (2)
	Poor communications	Poor communications
	No agreed developm't process	No agreed PLC process
		5 **(8)**
		PM leadership causes
Poor delegation		Poor delegation
	Lack of focus	Lack of focus
	Lack of commitment	Lack of commitment
		3 **(3)**
		Organiz'l support causes
Lack of executive support		Lack of executive support
Resource mgt problems		Resource mgt problems
		2 **(2)**
		Other (external) causes
		0 **(0)**

Total different causes 13
Cumulative causes nominated (17)

Analysis of cumulative causes

Project initiation-related causes	4/17 = 23%
PM operational-related causes	8/17 = 47%
PM leadership-related causes	3/17 = 18%
Lack of organizational support	2/17 = 12%
Other (external) causes	0/17 = 0%

PUBLISHED CAUSES OF PROJECT FAILURE (3)

Table 2-3: Major projects and mega-projects

Morris 2013:60: Major proj	Meier 2008: Major proj. (Morris 2013:86)	GAO 1996: Major (Morris 2013:95)	Klaver 2012: Mega-projects (Merrow)	Major + mega projects
				Project initiation causes
Unclear success criteria				Unclear success criteria
Changing sponsor strategy				Changing sponsor strategy
Funding difficulties				Funding difficulties
Problems re technology	Technology problems (2)			Problems re technology (3)
Poor sales/marketing links				Poor sales/marketing links
Poor project definition		Poor front-end defin'n	Poor front-end loading	Poor project definition (3)
	Overzealous advocacy			Overzealous advocacy
	Unrealistic proj baselines			Unrealistic proj baselines
	Poor systems engineer'g			Poor systems engineering
	Requirements instability			Requirements instability
		Inadequate estimating		Inadequate estimating
		No value engineering		No value engineering
			No owner/user involv't	No owner/user involvement
				13 **(17)**
				PM operational causes
Poor contracting strategy	Poor acquisition strategy	Weak contract mgt.		Poor contract mgt. (3)
Inadequate manpower	Workforce issues			Manpower issues (2)
		Poor scope mgt.		Poor scope mgt
Poor quality assurance				Poor quality assurance
Poor control				Poor control
Concurrency				Problems with concurrency
				6 **(9)**
			No leadership stability	**PM leadership causes**
			No clear team objectives	No clear team objectives
				1 **(1)**
				Organiz'l Support Causes
Lack of top mgt support			**[Myers 2013: Major]**	Lack of top mgt support
			Inadequat governance	Inadequate governance
		Lack of training		Lack of training
		Lack of PM focus		Lack of PM focus
		Lack of PM culture		Lack of PM culture
				No leadership stability
				6 **(6)**
				Other (external) causes
Unsupportive political envir't				Unsupportive political envir't
Inflation				Inflation
Adverse geophys conditions				Adverse geophys conditions
				3 **(3)**

Total different causes 29
Cumulative causes nominated (36)

Analysis of cumulative causes

Project initiation-related causes	17/36 = 47%
PM operational-related causes	9/36 = 25%
Lack of organizational support	6/36 = 17%
Other (external) causes	3/36 = 8%
PM leadership-related causes:	1/36 = 3 %

PUBLISHED CAUSES OF PROJECT FAILURE (4)

Table 2-4: All project types sampled

Combined Software	Combined General	Major + mega projects	All projects
Project initiation causes	**Project initiation causes**	**Project initiation causes**	**Project initiation causes**
		Unclear success criteria	Unclear success criteria
		Changing sponsor strategy	Changing sponsor strategy
		Funding difficulties	Funding difficulties
		Problems re technology (3)	Problems re technology (3)
		Poor sales/marketing links	Poor sales/marketing links
		Poor project definition (3)	Poor project definition (3)
		Overzealous advocacy	Overzealous advocacy
		Unrealistic proj baselines	Unrealistic proj baselines
		Poor systems engineering	Poor systems engineering
Incomplete requirements	Unclear requirements	Requirements instability	Incomplete requirements (4)
Inadequate estimating		Inadequate estimating	Inadequate estimating (2)
		No value engineering	No value engineering
Lack of user involvement	Lack of user input (2)	No owner/user involvement	No owner/user involvement (3)
Unrealistic expectations (2)	Unrealistic expectations		Unrealistic expectations (3)
Commitment escalation			Commitment escalation
5 **(6)**	3 **(4)**	13 **(17)**	15 **(27)**
PM operational causes	**PM operational causes**	**PM operational causes**	**PM operational causes**
	Poor project planning (2)		Poor project planning (2)
	Poor change control (2)		Poor change control (2)
	Poor cost control (2)	Poor control	Poor cost control (3)
Communication	Poor communications		Poor communications (2)
Risk management			Poor risk management
Contract management		Poor contract mgt. (3)	Poor contract management (4)
	No agreed PLC process		No agreed PLC
		Manpower issues (2)	Manpower issues (2)
		Poor scope mgt	Poor scope mgt
		Poor quality assurance	Poor quality assurance
		Problems with concurrency	Problems with concurrency
3 **(3)**	5 **(8)**	6 **(9)**	11 **(20)**
PM leadership causes	**PM leading causes**	**PM leadership causes**	**PM leadership causes**
Relationships mgt			Relationships mgt
Trust			Lack of trust
	Poor delegation		Poor delegation
	Lack of focus		Lack of focus
	Lack of commitment		Lack of commitment
		No clear team objectives	No clear team objectives
2 **(2)**	3 **(3)**	1 **(1)**	6 **(6)**
Organiz'l support causes	**Organiz'l support causes**	**Organiz'l Support Causes**	**Organiz'l Support Causes**
Lack of executive support	Lack of executive support	Lack of top mgt support	Lack of top mgt support (3)
		Inadequate governance	Inadequate governance
		Lack of training	Lack of training
		Lack of PM focus	Lack of PM focus
		Lack of PM culture	Lack of PM culture
Lack of resource	Resource mgt problems		Resource mgt. problems (2)
		No leadership stability	No leadership stability
2 **(2)**	2 **(2)**	6 **(6)**	7 **(10)**
Other (external) causes	**Other (external) causes**	**Other (external) causes**	**Other (external) causes**
Politics		Unsupportive political envir't	Poor political environm't (2)
		Inflation	Inflation
		Adverse geophys conditions	Adverse geophys conditions
1 **1 (1)**	0 **(0)**	3 **(3)**	3 **(4)**
		Total different causes	42
		Cumulative causes nominated	**(67)**

Analysis of overall cumulative failure causes

Overall project initiation-related causes	27/67 = 40%
Overall PM operational-related causes	20/67 = 30%
Overall lack of organizational support	10/67 = 15%
Overall PM leadership-related causes	6/67 = 9%
Other (external) causes	4/67 = 6%

SUMMARY ANALYSIS OF PUBLISHED CAUSES OF PROJECT FAILURE

	Software develop't	General project	Software + general	Major/mega-projects	All project types
Project initiation-related causes	43%	23%	32%	47%	40%
PM operational-related causes	22%	47%	36%	25%	30%
Lack of organizational support	14%	12%	13%	17%	15%
PM leadership-related causes:	14%	18%	16%	3%	9%
Other (external) causes	7%	0%	3%	8%	6%

Table 2-6: Summary analysis of published causes of project failure

Limitations of this sampling of published causes of project failure

I have deliberately set out the above tables of causes of project failures in detail, with all my choices of categorisation shown, to help interested readers make their own choices if they feel mine are inadequate, and/or to detect more useful patterns or groupings than my own. I am also concerned about the validity of cumulating the various causes this way, but could not come up with any better way of consolidating these data with such a small sampling. I would welcome expert advice on this.

This summary analysis of published causes of project failure has several limitations.

- The size of the sampling is far too small to be regarded as in any way representative of projects at large;
- We do not know the bases on which these lists of failure causes were assembled, and consequently how much credence can be accorded them;
- We do not know what failure criteria were used;
- My choices of categories, and their cumulation, may be open to criticism.

The need to develop comprehensive data on causes of project failures

The above deficiencies in current data all point to an urgent and obvious need to develop comprehensive data on causes of project failures – preferably validated by appropriate and agreed criteria as to what constitutes success / failure, and covering the widest possible range of project types and project management application areas.

OTHER CONCERNS FROM THE ABOVE, IN SPITE OF DATA DEFICIENCIES

Notwithstanding the above data deficiencies, two groups of causes of failure particularly stand out. These were project initiation-related causes, which comprised 40% of the total cumulative causes cited, and project management operational-related causes, with 30% of the total. In spite of the fact that these figures do not claim to be representative of all projects at large, they appeared to me to be much too high to simply ignore.

Linking the two primary causes of failure with the three "success levels"

I am therefore proposing to look at these two causes of failure in more detail in subsequent articles. These will be linked to the three "levels of success" discussed in the first article, namely

- Level 1: "Project management" success – "doing the project right"
- Level 2: "Project" success – "doing the right project", and
- Level 3: "Business" success – "doing the right project right, time after time"

In the following figures, project initiation-related causes of failure, and project management operational-related causes of failure, are represented in the text boxes on the left. It will be noted that I have indicated some permeability between the former and the latter, for the simple reason that many failures in project initiation phases have negative consequences for ensuing operational phase activities.

The three levels of success are shown in text boxes on the right, in reverse order to the above. Primary connections between each level of success and the relevant cause-of-failure group(s) are now discussed in turn.

Links with Level 1: "Project management" success

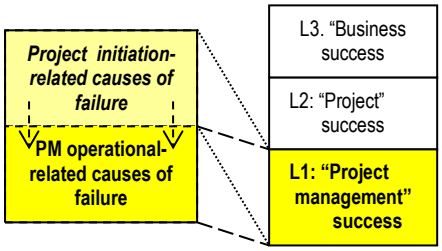

Figure 2-1. Links with Level 1: "Project management" success

Rather naturally, the primary linkage shown comes from project management operational-related causes of failure. However, as already indicated, many failures in project initiation phases have negative consequences for ensuing operational phase activities, and thence for "project mgt" success, as is indicated with a paler infill and linkage lines. These links will be discussed in more detail in the third article in this series.

Links with Level 2: "Project" success

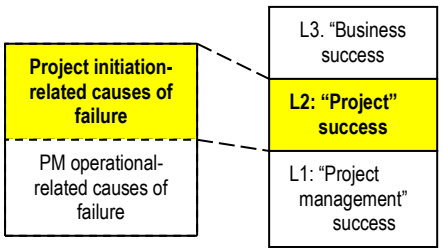

Figure 2-2. Links with Level 2: "Project" success

By far the strongest linkage with Level 2 success - "doing the right project" – comes from project initiation-related causes of failure, for the rather simple reason that failure to do the right project invariably derives from certain types of failure in project initiation phases. This linkage will be discussed in substantial detail in the fourth article of this series.

Links with Level 3: "Business" success

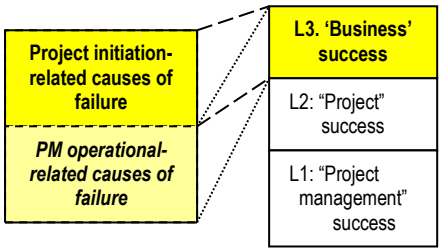

Figure 2-3: Links with Level 3: "Business" success

Taking Cooke-Davies' colloquial descriptor of "business" success as "doing the right projects right, time after time", there are links between this and both primary cause-of-failure groups. However, if the right projects are not done, the relevance of "doing them right" diminishes. Both linkages are shown, but the most dominant one is with project initiation-related causes of failure, and this is discussed in substantial detail, in a strategic management context, in the fifth series article.

SUMMARY/*CONCLUSIONS*

Five groupings of causes of failure on projects have been identified

This article first looked at available data on causes of failure on projects. Some 42 different causes of failure appeared in the sampling, many of them repeated in various listings. These were grouped into five main categories, as follows (in descending order of frequency of citation):

- Project initiation-related causes of failure
- PM operational-related causes of failure
- Lack of organizational support causes
- PM leadership-related causes of failure
- Other (external) causes

There are substantial limitations in this sampling of current data on causes of failure

This summary analysis of published causes of project failure has several limitations, relating to the small size of the sampling, the choices of categories and their cumulation, the bases of cited causes of project failures, and criteria used.

The above deficiencies in current data all point to an urgent and obvious need to develop comprehensive data on causes of project failures – preferably validated by appropriate and agreed criteria as to what constitutes success / failure, and covering the widest possible range of project types and project management application areas.

In spite of the limitations in the sampling, two groups of causes of failure stood out. The first of these was project initiation-related causes, which comprised some 40% of the total sampled, and the second was project management operational-related causes, with 30% of the total.

It was also concluded that the first two of the above five groups of causes of failure were too prominent to ignore.

The most prominent links between these two primary cause-of-failure groups and the three project success levels discussed in the first article of this series were then established. The next three articles of this series will discuss approaches to increasing success at each of the three success levels by taking various types of actions in the relevant operational-related and initiation-related phases of the project life cycle. Links with the other three causes of failure will also be briefly discussed.

A SUGGESTION/CHALLENGE (from the first two articles)

The first article of this series concluded that there is a perceived need for the project management community to establish consistent criteria for determining what constitutes project success and/or failure, and for more comprehensive data on rates of project successes/failures. This article has added the need to develop comprehensive data on causes of project failures.

Combining these perceived needs, the following suggestion / challenge emerges.

A suggestion (or challenge) here is for global project management organisations (IPMA, PMI, apfpm, etc) to jointly create a framework to develop and share project success / failure data, covering the widest possible range of project management types and application areas. This would include

- ***Developing and agreeing common criteria for project success / failure;***
- ***Collecting and sharing validated data on success/ failure rates;***
- ***Researching and sharing validated data on success drivers / failure causes.***

Such a framework would be a collection point / repository for such data which they share with their member Associations / Chapters internationally. This may take some time, but would also be a form of global benchmarking.

Perhaps there may be more expeditious ways of developing such data, and I hope the first two articles in this series might encourage others to think about how to achieve the above objectives on a global scale.

ACKNOWLEDGEMENT

Again, I gratefully acknowledge the help of my AIPM colleague Bill Young in critiquing and suggesting many improvements to this series of articles. However, all deficiencies remain my responsibility.

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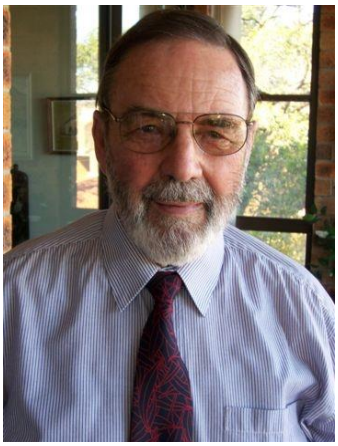

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