Project Success as a function of Project Management Methodology: an emergent systems approach

Submitted to the University of Hull in partial completion of the degree for Master of Business Administration

by Robert Benjamin

April 2006

Tutor: Bryan Jones

ABSTRACT

This pilot study investigated the possible relationship between a project management methodology and project failure. The problem of persistent, large scale project failure is considered. This study was approved by the Project Management Institute (PMI). The researched population was the PMI-accredited members.

The pilot study achieved a primary aim of explanatory and constructivist research, which is to further knowledge and understanding of a phenomenon. In addition, an emergence-based, systems approach was adopted for the project. Soft systems theory has proven to be most suitable for analysing complex problems (Checkland, 1993). Possible, new theory emerged to aid further research into the problem and has been recommended as such.

Due to a low response rate, the hypothesis could not be proven. However, it could not be disproved, or made void, either. A key finding was the existence of a probable, semantic gap within project teams. In addition, it was found that primary, project-related decisions pertain mostly to higher tactical and lower strategy levels of a decision architecture.

A surprise discovery was how project managers seemed unaware of the stragic decision powers they do wield. Further, it was found how project-manager decisions do not cover the full extent of the product/project life cycles. Last, this pilot study found how a PM methodology might be a factor in project failure.

Strong indicators probably exist to warrant further research into the likely relationship of PM methodology and project success. Further research into the emergent systems approach to PM methodology seems warranted on the hand of the indicators provided by the respondents.

Table of Contents

CHAPTER 1 – INTRODUCTION	3
1.1. Assumptions 1.2. Main Findings	3 3 3
CHAPTER 2 – RESEARCH METHODOLOGY	7
2.1. FRAMEWORK OF REFERENCE. 2.1.1 Survey Question 2. 2.1.2 Survey Question 5.	7 7 1
CHAPTER 3 – FINDINGS1	2
3.1. GENERAL13.2. SURVEY RESULTS FOR QUESTION 113.3. SURVEY RESULTS FOR QUESTION 213.4. SURVEY RESULTS FOR QUESTION 313.5. SURVEY RESULTS FOR QUESTION 413.6. SURVEY RESULTS FOR QUESTION 513.7. RESULTS FOR QUESTION 61	2 3 4 7 9
APPENDIX A – QUESTIONNAIRE2	0
GLOSSARY2	6
BIBLIOGRAPHY2	8

Table of Figures

Table 1 – Thirteen Principle Aspects of a PM Methodology	4
Figure 1 – Context of Emergent PM Methodology Aspects	6
Figure 2 – Three-Level Decision Architecture	8
Figure 3 – Five-Level Decision Architecture	8
Figure 4 – Five Level TOM Model	8
Figure 5 – Five Level Integration Model	9
Figure 6 – Five Level Integration Framework	10
Figure 7 – Business Architectural Context	10
Figure 8 – Results for Survey Question 1 (PM Methodology Used)	13
Figure 9 – Results for Question 2 (Project Manager Decisions)	14
Figure 10 – Results for Question 3 (PM Decisions)	15
Figure 11 – Results for Question 3 (PM Decision Levels)	16
Figure 12 – Results for Question 4 (PM Decisions and Project Success)	17
Figure 13 – Results for Question 5 (PM Methodology)	18
Figure 14 – Question 6a (Definition)	19
Figure 15 – Question 6b (Competence)	19
Figure 16 – Question 6c (Project)	19
Figure 17 – Question 6d (PM Methodology)	19

Chapter 1 – Introduction

Chapter 1 introduces the "problem" of persistent, global project failure. Research into this problem by The Standish Group, Hussain and Wearne, PricewaterhouseCoopers and others are acknowledged.

Chapter 2 illuminates the context, content and rationale for the construction and interpretation of the data. Chapter 3 presents the findings of this research. Although the respondent sample size was small, exciting indications were represented in the data.

1.1. Assumptions

In investigating the problem of project failure, this report assumed the following:

- > Project failures are a reality worth dealing with.
- > Project management probably exists in a relative world.
- Most organisations probably want to avoid project failures, but many don't "know" how to do it.
- > Many, alleged "causes" of project failure may possibly not be causes at all.
- As a result of this pilot study, an improved understanding of the complexity of the field of project management may result.

1.2. Main Findings

In the main, the following findings emerged: (detailed findings are discussed in Chapter 3).

- Project management decisions predominantly live at higher tactical and higher strategy decision levels.
- > A semantic gap probably exists within projects.
- Project manager decisions do not cover the full extent of product and project life cycles.
- > A PM methodology is likely to be a primary factor in project failure.

1.3. Principle Aspects of a PM Methodology

This pilot study addresses a PM methodology as a holistic theory of systems integration. Within this approach, 13 principle aspects, as abstractions, of a PM methodology are covered in the literature review (refer to Table 1).

RELATIVITY	FEEDBACK	TOOLKIT	STANDARDS	RESOURCE
REALITY	ADAPTATION	SPECIFICATION	PREDICTION	COLLABORATION
COMPETENCY	MOTIVATION	MANAGEMENT SYSTEM		

Table 1 – Thirteen Principle Aspects of a PM Methodology

In this context, abstractions present as architectural components of a PM methodology. From the literature it would become apparent how component boundaries of the PM system appear to be fuzzy by nature. This would mean that one aspect may overlap with another in an integral way. This "fuzziness" suggests a complex, relative world (Kosko, 1999). To further complement the literature review, a detailed view of projects is also incorporated.

In general, the fractal systems view challenges the prevailing notion that every subject, or object, might be neatly compartmentalised and managed via clear, logical or physical boundaries. Emergence theory, in Checkland (1993), suggests that although this notion may be relevant, more abstract attributes might be used to differentiate components and see systems in a new light.

An "emergent" approach has been employed to construct a general systems model of the 13 possible aspects of a PM methodology (See Figure 1). The point of the model is to demonstrate an example of how emergence theory might be applied to PM. The resultant model in Figure 1 has relevance for this report in that it provides a list of components, which should probably exist within a PM approach. As such, this model provides a theoretical baseline against which existing PM methodologies may be objectively evaluated.

The emergent approach is primarily based on existentialism, meaning a system of choice and consequence, of self determination, of relative truth. Each rectangle represents a component of a system. The approach constructs a systemic view of knowledge, based on the existential value of each system component. Arrows represent the inter relationships between components. The construction and interpretation of the arrows differ from that of logical flow models in relational theory. The primary difference occurs in the *inverted* direction of the arrow. As such, each arrow does *not imply* the next component, and therefore does *not determine* it.

Further, an arrow does not denote, or imply, a one-to-many relationship in any way. Note also that many-to-many, or one-to-one (bijection), relationships are not used for

4

this approach. The reason for this "constraint" is to ensure each component acquires its existential place within the systems hierarchy of a particular context, whilst applying a real-time normalisation of components. Normalisation of data is a general requirement for optimised systems. The normalisation principle reduces the risk of sub-optimal systems development, especially when sub-systems logically combine into larger systems.

An arrow points to the component, which must exist first, for a related component to exist within a particular context. However, it is acknowledged how each component would exist on its own, without its related component, in another context. Therefore the context defines the relationships. Components assume the characteristics of true objects, meaning having an own identity and sharing the characteristics of encapsulation, method, data and so on. As such, objects may very much represent fractals within a structured, systems context.

This approach to modelling systems provides a dynamic (non sequential) capability based on the reality of the system's environment, and not the subjectivity of the modelling agents. A relative degree of objectivity, and thus testability, results due to the particular system's environment (or reality).

Any component, which has an arrow pointing to it, is allocated a higher priority than the component linked to the start of an arrow. Further, components which have the most arrows pointing to it are allocated a higher hierarchical value based on its criticality to the holistic functioning of the specified context, or system.

The resultant model of interdependencies is subjective and the validity of the model is determined by the knowledge base represented by the contextualised content. Context, or a system of relationships, are defined according to the reality of the environment of the system.



Figure 1 – Context of Emergent PM Methodology Aspects

The model in Figure 1 provides "feedback" as follows: four possible core-system components exist, namely: {Competency=Criticality1; Reality=Criticality2; Adaptation=Criticality2; Feedback=Criticality2;}.

The fact that various components may simultaneously carry the same criticality, and priority, values supports the argument for this being a non-linear systems view where parrallel operations could be performed in real time, within a single system. In this context, the argument is supported of "content" being the differentiator of "work" to be performed.

Chapter 2 – Research Methodology

The purpose of this research is to investigate the possible link between the following variables: PM (project management) methodology and project failure. This chapter states the basis for the research approach and its supportive paradigm. Further, the rationale, as an approach to the actual study is detailed and related to the theoretical foundation in this report.

2.1. Framework of Reference

Following is an explanation of the construct of the survey and how the results would be interpreted. The questionnaire is discussed in detail and related to the theory. Further, theoretical decision architectural models were adapted from Curtis and Cobham (2002) and extended to support the survey. These models support an "emergence" and fractal approach to understanding complex environments.

2.1.1 Survey Question 2

According to Anthony, in Curtis and Cobham (2002),: "Three levels of managerial activity are important in understanding the way organizations take decisions." (p. 8). The three decision levels, which are represented in Curtis and Cobham (2002), are: strategic, tactical and operational levels (See Figure 2).

Further, the information within the decision context is time based, presenting characteristics of granularity (i.e., level of detail), source, degree of certainty (i.e., probability) and frequency (Curtis and Cobham, 2002). It is acknowledged how the three levels probably correlate with modes of thinking as follows: strategic/conceptual, tactical/logical and operational/physical.

The three levels of the decision architecture are characterised as representing a "traditional" business architecture (See Figure 2). Further, an adapted model extends the levels from three to five, whilst maintaining the classification of the levels to "Strategic", "Tactical" and "Operational" (See Figure 3)



Source: Curtis and Cobham (2002)



Theoretically, the five-level decision architecture could possibly improve the detail of decision making, and thus the accuracy of management decisions. This would be most relevant in organisations where there either are no hierarchical structure (e.g., virtual organisations), or which follow "flatter" structures (e.g., the middle-level management layer has been removed as is often found in a project stucture).

As such, the extended classification specifies the following levels: higher strategy, lower strategy, higher tactical, lower tactical and operational. Further, the reality of the five level model finds support in modern decision making models, such as that of the TMF (TeleManagement Forum).

Accordingly, the TMF (1999) specifies the TOM (telecom operations map) model with five levels, within the context of a telecommunications management network (See Figure 4).



Figure 4 – Five Level TOM Model

⁸

It is asserted that the purpose of systems integration is to bring form to function. In general, it would mean making different objects work together as if they are one, optimised system. An <u>integration</u> of the decision levels, within the **context** of a business architecture framework, is presented in Figure 5.

The model in Figure 5 shows how business, process, function, data, information, knowledge and technical architectures are logically positioned, as system components, within a decision architecture. These system components serve as building blocks (meta objects) within strategic, tactical and operational levels of a project.



Figure 5 – Five Level Integration Model

LegendHS = Higher StrategyBM = Business ManagementLS = Lower StrategySM = Service ManagementHT = Higher TacticalNM = Network ManagementLT = Lower TacticalEM = Element ManagementO = OperationalNE = Network Element

For business support, the five-level integration model is applied to a possible <u>systems-integration management framework</u> (See Figure 6). The last model in this series presents the decision architecture in context of a possible organisation-wide architecture, as would be applicable acoss the scope of a large project (See Figure 7).

Source: R. Benjamin (1999), as part of an an Integration Management Presentation

	External Strategic Environment/Customer Interface						
Higher Strategy	Subsystem		Subsystem		Subsystem	Subsystem	Subsystem
	Knowledge Platforn	า					
	Strategic Data, Information, Knowledge		Strategic Function		Strategic Process	User Interface	Strategic Requirement
	Information Knowle	dge Platfo	m				
Lower Strategy	Information Knowledge		Business Function		Business Process	User Interfaces	Business Requirement
Linken	Data Information PI	atform					
Higher Tactical	Data Information		Operations Function		Operations Process	User Interfaces	Operations Requirement
	Data Platform						
Lower Tactical	Data S	ynthesis	Function	-Derived+ •Derived-	Application Process	Technical Interfaces	Operational Requirement
	Meta Platform		Derived				
Operational	Meta-Data	Meta Application	Meta- Function	Meta Objects	Meta Process	Meta Technology	Operational Requirement
	Internal Organizational Drivers						

Figure 6 – Five Level Integration Framework

Source: R. Benjamin (1999) as part of an Integration Management Presentation

Figure 7 – Business Architectural Context



In summary, the possible PM value of an integration framework offers potential for mapping project management decisions, across project stages/phases, to a decision architecture.

Further potential exists for mapping PM methodology to project management decisions over the full product/project life cycle. It seems possible that "custom" PM methodology processes could emerge from this mapping, thereby offering potential for automating such processes. Custom PM methodological processes are prescribed within Bolles and Fahrenkrog (2004).

2.1.2 Survey Question 5

Question 5 is qualitative, in that it seeks the respondent's experiential view on the competency of the PM methodology mostly used. This methodology could be assumed to be the one specified in Question 1, and indicated as mostly used by the number of months.

Importantly, a distinction is made between a PM methodology and a PM tool. The possible anomaly of viewing a PM tool as a PM methodology is further neutralised by making a categorical statement that the one is not synonymous with the other. This is done in order to increase the reliability of the data.

In the question, the respondent is presented with a list of 16 statements about a PM methodology. Further, the respondent is asked to relate each statement to the PM methodology used most. Numbers 1 through 15 (stated as "a" through "o") are related to the theory in the literature review, in particular the notion of a possible competency model (refer to 1.3).

It is asserted that a PM methodology has as function to ensure project success. According to the theory, project managers are seemingly held responsible and accountable for project success or failure. Therefore, the project manager is requested to rate the methodology. The rating tests conceptually for each item's representation of an aspect of the suggested PM methodology competency model (See Figure 1).

Chapter 3 – Findings

3.1. General

In general, the pilot study proved successful in that it seemingly furthered the knowledge of project management. The low response rate does not lend itself to complete statistical analysis. It is asserted how a sample of at least "30" responses would have been deemed more adequate. However, only eight responses were received, of which one contained no data.

The low response rate has been discussed at length within the context of "Ethics". It is asserted how the main reasons for the low response rate were:

- 1) The PMI seems to have ethical issues with supporting an on-line survey with a supportive, awareness approach.
- 2) Although the date, for survey completion, was correctly stated within the PMI link, the date in the actual questionnaire was stated as a month earlier. Dates moved due to the process of getting the link up to the PMI. Unfortunately, the main host of the questionnaire, in the UK, went abroad on extended leave, and the questionnaire date could not be updated to reflect the date on the PMI's research link.

It is acknowledged how the use of percentage-related graphs and charts would be better suited to a larger sample of data than the one in this report. Nonetheless, the results should still be viewed in the context of the indicators they do provide.

This pilot study primarily found how:

- Project management decisions predominantly live at higher tactical and higher strategy decision levels.
- > A semantic gap probably exists within projects.
- Project manager decisions do not cover the full extent of product/project life cycles.
- > A PM methodology is likely to be a primary factor in project failure.

3.2. Survey Results for Question 1

Question 1 determined which methodology respondents used most. The high incidence of an in-house/custom methodology and a combination of other methodologies seem significant in the light of the findings of Curtis and Cobham (2002).

Curtis and Cobham (2002) asserted how 20% of their respondents did not use a formal methodology and that the utilisation of mixed/hybrid methodologies seemed prevalent. Most used methodologies: PMBOK and In house/custom methodology (See Figure 8). The emergence of a tendency towards custom methodologies is indicated. The absence of utilisation statistics for a Prince1/2 methodology might be explained in the context of the study having been conducted across the PMI, which is the logical owner of the PMBOK. As such, one would not expect to find high utilisation of Prince1/2 in a dedicated PMBOK subscriber market.

Rather, the seeming lack of dominant utilisation of the PMBOK domain raises the questions whether or not this might be a new trend emerging, and what the meaning of such an indicator might be. Last, the likely existence of another, "standard" PM methodology seems to be indicated.



Figure 8 – Results for Survey Question 1 (PM Methodology Used)

3.3. Survey Results for Question 2

The results indicate that the decision span, and possible management influence, of project managers cover four levels of the five-level decision architecture, namely the lower strategic, higher tactical, lower tactical and operational levels (See Figure 9).

The majority of decision-making power seems to be centralised around the higher tactical decision level, with significant representation in the lower strategic and lower tactical levels being indicated. A probable case for the emergence of decision power at the lower strategy and lower tactical levels is stated. The emergence of decision power, at the lower tactical level, seemingly reflects more on the seniority of project managers than on project decisions. In addition, no case has been indicated for the emergence of decision power at a higher strategic level.

The higher tactical level seems most significant as it represents the level where operations alignment, between business strategy and implementation, theoretically occurs within the five-level decision architecture. A research project, which focuses on the notion that project managers might possibly be business alignment managers, might be indicated for the future.





3.4. Survey Results for Question 3

Question 3 correlates the decision making power of project managers, across the five-level decision architecture, to decisions specifically related to the project stages/phases. The results indicate that the majority of decisions, which project managers make on a daily basis, centre around building and using/maintaining the product as well as managing the project (See Figure 10). These decisions relate to the 'Debug or Commisioning and Hand over Phase' and the 'Operate and Maintain Phase'. Further, these decisions possibly relate to the higher and lower tactical decision levels of the decision architecture. Decisions pertaining to the technical aspects of projects typically correlate to the lower tactical and operational levels of the decision architecture. As such, this result is a surprise due to the indicator that

project managers seemingly make many technical decisions, a domain usually reserved for system engineers, commisioning engineers and the like.

Of interest is how project managers don't decide over the production of project business cases and proposals, which are key decision areas within the strategic decision level. It is likely that decisions over project proposals connect the lowerstrategy decision level to the higher-strategy decision level.

Further, from a strategic perspective, the implication is made that project managers are applied in a reactionary role. However, further analysis of the results seem to indicate a far more powerful influence in the lower- and higher-strategy decision levels. In summary, indicators are that project manager decisions generally do not cover the full product and project life cycles.

Figure 10 – Results for Question 3 (PM Decisions)



Overall Contribution of Project Manager Decisions per Project Phase

The largest contribution of decisions were to the 'Plan and Design Phase' of a project. This phase also represents the lower strategy level of the decision architecture. This finding does not correlate to results of Question 2, where it was indicated that most project manager decisions were of a higher tactical nature.

However, when mapping the decisions results of Question 3 to the decision architecture, then the majority of decisions across the product/project phases occurred at the higher tactical level, which correlates to Question 2, closely followed by the lower strategy level (See Figure 11).

Besides being the first indicator, in the study, of the strategic role project managers do play, the apparent anomaly between Questions 2 and 3 could possibly be explained on the hand of project managers not regarding themselves as strategic decision makers.

However, this result shows how such decision powers could probably be attributed to project managers. Of particular interest is the result indicating the higher strategy decision power project managers seem totally unaware of.



Figure 11 – Results for Question 3 (PM Decision Levels)

3.5. Survey Results for Question 4

Project managers were adamant that in all probability, their decisions would either make a definite difference to, or would actually make a project succeed or fail (See Figure 12).

This finding is both significant and paradoxical, as a project manager's decision power and decision areas indicated a definite limitation to the extent that a project manager could affect the full product/project life cycle.



Figure 12 – Results for Question 4 (PM Decisions and Project Success)

3.6. Survey Results for Question 5

A surprise finding was that **all** the emergent PM methodology aspects were indicated by only **three**, most selected methodology statements as 'Most Important' (See Figure 13). As such, it seems likely that the results indicate support for the emergent aspect model depicted in Figure 1 due to all the respondents selecting the three critical components of the model. Future research is indicated to verify this finding.

A further finding was how project managers did not consider themselves being able to influence a PM methodology directly as a competency factor. This finding is disconcerting as Bolles and Fahrenkrog (2004) clearly indicate the project manager's explicit responsibility to assemble PMBOK processes as a "custom" approach.

Figure 13 – Results for Question 5 (PM Methodology)





3.7. Results for Question 6

The majority of respondents agreed with the proposed definition of project success (See Figure 14).

What seems significant is that a near equal number of respondents either did not agree, or were not sure about the definition. The definition of project success was adapted from the PMI's literature, and the expectation was to find overwhelming support for the definition. This notion did not hold true.

Probable cases are indicated for projects failing due to lack of competency, and for the term "project" meaning different things to different people (See Figure 15 and Figure 16). Last, a PM methodology is indicated as likely to be a primary factor in project failure (See Figure 17).

Figure 14 – Question 6a (Definition)



Figure 15 – Question 6b (Competence)



Figure 16 – Question 6c (Project)



Figure 17 – Question 6d (PM Methodology)



Appendix A – Questionnaire

Letter of Introduction

Doncaster Business School (in association with the University of Hull) South Yorkshire United Kingdom

ENHANCING PROJECT SUCCESS

Esteemed PMI Accredited Participant

I am currently researching the above in order to determine and share deeper concerns on this topical and critical issue. As you all are aware of, the global statistics on project failure is a serious concern to us as well as our industry. Furthermore, the results from formal research have not managed to resolve this apparent dilemma. I am attached to the full-time MBA program and have spent 12-working years in IT and business project areas.

You have experience that would be critical to the outcome of this research. Your input presents the raw data for this project. Without your help, this research will not be able to add specific value to this topic. I would very much like to hear your views as project managers with regards to the role your PM methodology plays in the performance management of projects, and the success of project managers.

The questionnaire has been designed to collect this important data. It has been designed to be simple, clear and concise in its collection. Further it meets the highest academic and scientific standards. This research is not for degree purposes alone. It has relevance to all of us, and would serve as foundation work for further topical research and understanding.

The research report would be made available to the PMI in order to benefit the industry and you, the participants. If you require any further information, please do not hesitate to contact the relevant PMI office or myself directly.

Yours sincerely

Robert Benjamin United Kingdom trailme@yahoo.com

Respondent Details

PMI Membership Number:	Date:
Region of Work (e.g., USA):	Gender (optional):
Initial and Surname:	Age (optional):
Position/Title:	_
Organisation Name (optional):	
How many years have you been a PM for?	
Number of projects worked on?	

Questionnaire on Project Success Factors

The purpose of the questionnaire is to investigate the possible role of PM methodologies in project performance. For this purpose, 6 questions are proposed to you.

Note: Feedback to you is guaranteed. If you would like to receive feedback on the results, please indicate so in your return e-mail by entering the word FEEDBACK in the 'Subject' part of the e-mail. Results would be made available by May 20th, 2005. Thank you for your invaluable contribution. Due date = April 28, 2005.

Respondents are kindly requested to return all questionnaires by no later than April 28th, 2005.

Instructions for Completing the Six Questions

Statement of Scientific Requirement

In order to avoid any bias in the data, please refrain from discussing these questions with anyone. Further, do not "prepare" yourself in any way, before answering this questionnaire. Your PERSONAL sharing is kindly requested and regarded as most important. Once a question is completed, please do not revisit it, or change any answers.

Instruction Set

- > Download the attached file 'PMQ.doc' to your desktop.
- > Set yourself a 10-minute session to complete the questionnaire.
- > Open the Word document.
- > Complete by typing in the spaces provided.
- Save the file and e-mail to trailme@yahoo.com

Question 1: PM Methodology

Please select an item from the list and indicate your answer with a '**Y**' in column 'Used?'. Please indicate the time period the PM methodology was used for in column 'Period' as months (e.g., 1.5 years = '**18**').

Code	PM Methodology Name	Used?	Period (months)
PK	РМВОК		
P1/P2	PRINCE1 or PRINCE2		
СМ	In-house\custom methodology		
CN	A combination of different methodologies		
OR	Other, standard methodology. (<i>Please type in the name</i>):		
NIL	No methodology		

Which PM Methodology do you use most?

Question 2: Decision Making Power over Projects

Type a 'Y' in the relevant boxes. Multiple boxes may apply to you. Please select no more than TWO boxes, which represent the majority of the level of your decisions per day.

Code	Decision Making Level	'Y' only
HS	I make higher strategic decisions (e.g., executive level and/or strategic consultant and/or advisor and/or project executive)	
LS	I make lower strategic decisions (e.g., division level – chief information officer and/or program manager and/or project office manager and/or director and/or divisional/regional manager)	
HT	I make higher tactical decisions (e.g., line manager and/or departmental manager and/or project manager and/or network management and/or process management)	
LT	I make lower tactical decisions (e.g., supervisory and/or team leader and/or decide what support to give to others and/or decide how data should be structured in reports)	
0	I make operational decisions (e.g., I run an operational process and/or answer phones and/or schedules and/or capture data and/or deliver information)	
NIL	I am not sure	

Question 3: Decision Making Areas

With reference to Question 2, which of these project phases/stages do most of your decisions and actions apply to? Multiple boxes may apply to you. Please insert a '**Y**' next to every relevant phase/stage.

Please note: The phases/stages cover both the product and project life cycles. Therefore, they are sequenced in logical order.

Code	Project Phase/Stage	Your Answer
HS1	Deciding that a business need for a project to exist within the organisation (e.g., internal – Decide a possible business case exists, or external – A sales request is issued/received).	
LS1	Deciding to allocate money and/or manpower and/or organisational time to investigate this need for a project. (e.g., internal – Register formal project or external – Decide to compile solution proposal)	
LS2	Producing Project Proposal (Project need and solution concept specification)	
LS3	Validating Business Case (Specifying the project-to-business value)	
LS4	Feasibility study to initiate the project (Investigate if the project is doable – time, people, skills, technology, budget)	
HS2	Approving/Terminating the project (Veto/Decide to Go ahead or Not)	
LS5	Planning the approved project (Design)	
LS6	Specifying user requirements (Design)	
HT1	Appointing project team members (Plan and Build)	
HT2	Managing the project (Plan and Build)	
HT3	Building the product (Build)	
LT1	Testing the product (Build)	
LS7	Accepting/Rejecting the product (Test/Correct/Approve/Accept)	
HT3	Using the product (Commission/Use/Maintain)	
LS7	Maintaining/Improving the product (Support/Maintain/Enhance)	
HS3	Terminating the product (End)	
NIL	Other	

Question 4: The Impact your Decisions have on a Project

Please select <u>one</u> number from the range of numbers. How much would overall project success be affected by the majority of your daily, project-related decisions?

1-2 = it won't make a difference at all.

3-4 = it would matter, but not make a difference.

5-6 = it would matter, and make a definite difference.

7-8 = it possibly could make the project succeed or fail.

9-10 = it probably would make the project succeed or fail.

Your answer: _____

Question 5: The Role of PM Methodology

Which of the following statements specifically apply to the PM Methodology you use most?

Note: Please assume all the statements are relevant to a PM methodology. In this context, a PM tool does not automatically represent a PM methodology. Therefore, a PM tool <u>is not</u> synonymous with a PM methodology.

The PM methodology does not improve my ability to deal with the real-time complexity of the project environment.

- a. The PM methodology works well for a while, after which it seems to diminish in its value added.
- b. The PM methodology does not improve the accuracy of my project decisions in a significant manner.
- c. Many project 'issues' should be, but are not, managed within the PM methodology.
- d. The PM methodology does not seem to ensure adequate resources for the full length of the project (resources = data, information, equipment/tools, skills, expertise, time, money).
- e. The PM methodology does not seem to help me, and my team, to continuously adapt to project changes.
- f. The PM methodology is restricted to a project view only.
- g. The PM methodology seems to have a poor relationship with 'real' project management.
- h. The PM methodology does not inform me of how well I am managing the project.
- i. The PM tool has limited-to-no integration with other project tools.
- j. My project team complains about the PM methodology.

- k. If I could directly influence the methodological content within the PM methodology, I would probably perform better as a PM.
- I. The PM methodology is not fully integrated with the PM tool.
- m. The PM methodology does not provide me with statistics of the financial performance of the project (e.g., ROI (return on investment), Cost, Profit, Cash Flow, targets).
- n. The PM methodology usually increases my management workload.
- o. None of the above

Your answer (e.g., a,b,f,h,o): _____

Question 6: Emerging Issues

Please select one of the following answers: 'Yes', (I agree with the statement). 'No',

(I disagree with the statement). 'Not Sure', (I am stuck between a 'Yes' and a 'No').

- a. Do you agree with the definition of a project being successful because it produces a unique product or service, which is completed within time, within budget and to requirements? _____
- b. Do you agree with the statement that most projects usually fail in areas where there is a lack of competence? _____
- c. Do you agree that the term 'project' means different things to different people?
- d. Do you agree that a PM methodology can make the difference between a project's success and failure?

Thank you for completing this questionnaire. Please send to trailme@yahoo.com

Glossary

Term	Description
Adaptive system	A system, which is supple enough to change its behaviour relative to its reality.
Architecture	Design principles
Business Decision Architecture	A designed business structure over which business decisions flow.
Component	One of a system's parts.
Context	A framework of reference.
Dynamic environment	An environment, which is characterised by frequent and rapid change.
Emergence	That which emerges, typically from complexity.
Existential	Real or existing in a proven manner.
Fractal	A part of the whole that is similar, but uniquely different.
Function	A product or an effect with a definite cause.
Fundamental	Basic
Methodology	An approach, which is supported by methods, techniques and a management system.
Prediction	The ability (competence) to say something about the future.
Process	An encapsulation of a system of functions and data. A process is characterised by having an input, a transforming function, and a new result as an output. A process contains functions, data and methods within a hierarchy or structure.

Term	Description
Product	A tangible result of a process.
Project	Managed activities to achieve specified objectives and goals.
Project Management	The management of projects.
Project Management Methodology	A methodology with which to manage projects with.
Project Manager	A person fulfilling a project-management role.
Semantic	Symbolism of language, communication and understanding.
System	A related collection of parts, which operate together towards a common goal.

Bibliography

Answers.com (2005) Online Dictionary, Encyclopedia and much more [online] www.answers.com [Accessed 1 June 2005]

Bolles, D. and Fahrenkrog, S. (2004) *A Guide to the Project Management Body of Knowledge*. 3rd edition. Newton Square. PMI

Burke, R. (1999) *Project management: planning and control techniques.* 3rd edition. Chichester. John Wiley & Sons Ltd.

Buttrick, R. (2000) *The project workout*. 2nd edition. London. Prentice Hall

Cadle, J. and Yeates, D. (2001) *Project management for information systems*. 3rd edition. Harlow. Prentice Hall

Certo, S. M. (2000) *Modern management.* 8th edition. London, Prentice-Hall International (UK) Limited.

Charette, R. (2004) IT Project Failures or Blunders? [online] www.cutter.com/research/2004/edge040427.html [Accessed 11 Nov 2004]

Checkland, P. (1993) Systems thinking, systems practice. Chichester. John Wiley & Sons

Copeland, S. (2004) Leadership A Pre-requisite for Success. [online] www.projectmagazine.com/v5i2/leader1.html [Accessed 11 Nov 2004]

CPM (2004) Projects fail [online] www.cpm-solutions.com/projectsfail.html [Accessed 23 November 2004]

Curtis, G. and Cobham, D. (2002) *Business information systems: analysis, design and practice.* 4th edition. Harlow. Prentice Hall

Emery, D. H. (2004) The Prime Project Failure Factor. [online] www.dhemery.com/cwd/2004/06/failure.html [Accessed 11 Nov. 2004]

Finkelstein, D. (2005) Fiasco of the computer systems that keep failing us. [online] http://www.timesonline.co.uk/article/0,,21129-1475562_1,00.html [Accessed 6 June 2005]

Garvey, B. and Williamson, B. (2002) Beyond knowledge management: dialogue, creativity and the corporate curriculum. Harlow. Prentice Hall

Gell-Mann, M. (1994) The quark and the jaguar: adventures in the simple and the complex. New York. Henry Holt and Company

Grant, R. M. (2002) Contemporary strategy analysis: concepts, techniques, applications. 4th edition. Malden. Blackwell

Hamel, G. and Prahalad, C. K. (1994) *Competing for the future*. Boston. Harvard Business School

Handy, C. (1994) The age of paradox. Boston. Harvard Business School Press

Hill, T. (2000) Operations management: strategic context and managerial analysis. London. Macmillan Press LTD

Hussain, R. and Wearne, S. (2003) The causes of problems of project management. Private draft. 25th December 2003. [n.k.]

Jacobson, I. (1995) The object advantage: business process reengineering with object technology. Workingham. Addison-Wesley Publishing Company

Johnson, G. and Scholes, K. (2002) *Exploring corporate strategy*. 6th edition. London. Pearson Education Limited

Kerlinger, F. N. (1986) *Foundations of behavioural research*. 3rd edition. Fort Worth. Harcourt Brace Jovanovich College Publishers

Knutson, J. (2001) Project management for business professionals: a comprehensive guide. New York. John Wiley & Sons, Inc.

Koch, R. (2000) The power laws: the science of success. London. Nicholas Brealy Publishing

Kosko, B. (1999) The fuzzy future: from society and science to heaven in a chip. New York. Harmony Books

Kotler, P. and Armstrong, G. (2004) *Principles of marketing.* 10th edition. New Jersey. Pearson Education, Inc.

Laudon K. C. and Laudon, J. (2004) *Management information systems: managing the digital firm.* 8th edition. New Jersey. Pearson Education International

Lazzara, A. (2003) Project health? Should we keep on investing? DM Direct Newsletter. [online] http://www.dmreview.com/article_sub.cfm?articleId=6338 [Accessed 23 November 2004]

Levine, R. I. and Drang, D. E. and Edelson, B. (1986) *A comprehensive guide to Al and expert systems*. New York. McGraw-Hill Book Company

Lock, D. (2003) *Project management.* 8th edition. Hampshire. Gower

Malotaux, N. R. (2004) Evolutionary Project Management Methods [online] www.malotaux.nl/nrm/English [Accessed 22 Jan 2005]

Mannheim, K. (1936) Ideology and utopia: an introduction to the sociology of knowledge. San Diego. Harvest

Myerson, J. (2004) Avoiding enterprise project failures [online] www.informit.com/articles/printerfriendly.asp?p=174157 [Accessed 23 November 2004]

Nevison, J. M. (2004) From ROI to Eureka!: The Oak Business Case for Developing Better Project Managers. Maynard. Oak Associates, inc.

Orna, E. (1990) Practical information policies: how to manage information flow in organizations. Aldershot. Gower

Parkin, M. (2000) *Economics*. 5th edition. Reading. Addison Wesley Publishing Company

PMI (2005) Project management institute [online] www.pmi.org/ [Accessed: 3 June 2005]

Pmforum (2004) Project management Standards and Personal Certification. [online] www.pmforum.org/prof/standard.htm [Accessed 9 December 2004]

Porter, M. E. (1980) Competitive strategy. New York. Free Press

PricewaterhouseCoopers (2004) Only 2.5% of Global Businesses Achieve 100% Project Success and Over Half of Global Business Projects Fail. [online]http://www.pwc.com/extweb/ncpressrelease.nsf/docid/E941BA9C7EA43B558 5256EEE0055A293. [Accessed 7 October 2004]

ProjectPerformance(2004)Prince2Tour[online]www.projectperformance.co.uk/prince2_tour.htm[Accessed 9 December 2004]

Project Workout (2004) Benefits: Methods and best practice. [online] www.projectworkout.com/html/methods.html [Accessed 9 December 2004]

Russell, D. A. and Voropaev, V. I. (2004) Project categories and life cycle models: Report on the 2003 IPMA Global Survey. 18th IPMA Project Management World Congress. June 18-21 2004

Ruuska, I. and Vartiainen, M. (2003) Critical project competences – a case study. Journal of Workplace Learning, 15 (7/8) pp. 307-312

Saunders, M. N. K. (1997) Research for business students. London. Pitman

Sloboda, J. and Kemp, J. and Abbott, C. (2004) Putting people first: the way forward for the UK armed forces [online] www.oxfordresearchgroup.org.uk/publications/briefings/puttingpeoplefirst.htm [Accessed 23 November 2004]

Software Magazine (2004) Standish: Project Success Rates Improved Over 10 Years. [online] http://www.softwaremag.com/L.cfm?Doc=newsletter/2004-01-15/Standish [Accessed 11 November 2004]

Standish (2001) EXTREME CHAOS. [online] www.standishgroup.com/sample_research/PDFpages/extreme_chaos.pdf. [Accessed 11 January 2005]

Stewart, T. A. (1997) Intellectual capital: the new wealth of organizations. London. Nicholas Brealey Publishing

TMF (1999) Telecom Operations Map. Evaluation Version 2.0 TeleManagement Forum. Morristown

Toffler, A. (1970) Future shock. London. Pan Books

Vecchio, R. P. (2000) *Organizational behaviour: core concepts*. 4th edition. London. The Dryden Press

Wilson, M. (1997) The information edge: successful management using information technology. London. Pitman Publishing

Wisker, G. (2001) The postgraduate research handbook: succeed with your MA, MPhil, EdD and PhD. London. Palgrave.

Whittington, R. (2001) *What is strategy – and does it matter?* 2nd edition. Australia. Thomson Learning