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GENERIC ORIGINS OF
PROJECTS/PROGRAMS/ PORTFOLIOS?

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ABSTRACT

In a paper entitled “Program Management Diversity – Opportunity or Problem” (Stretton 2009b) I discussed several aspects of diversity in the program management literature, and essentially posed the question as to whether, and if so how, some of these diversities might be reconciled. This paper looks at a somewhat different aspect of diverse perceptions in the literature, namely on the origins of projects, programs and portfolios. I propose a generic perspective on how they are initiated, which I hope will either find general acceptance in most program/project application areas, or lead to such a generally accepted perspective. I am therefore seeking feedback on the following.

This particular perspective is based on the proposition that projects, programs and portfolios are initiated through recognitions of broader organisational/institutional needs/opportunities that cannot reasonably be satisfied within the context of normal operational processes. This then prompts initiation of specific projects/programs/portfolios to help satisfy these needs.

Which of the latter is chosen will depend on individual circumstances, including factors such as scale/complexity. With very substantial scale/complexity, two or more relatively independent programs/projects may be required, commonly organised as portfolio(s). At a lesser scale, two or more inter-related projects may be needed, which are organised as program(s). On a yet smaller scale, a single project (here called an ‘independent’ project) may be sufficient to deliver the needed products/outcomes.

If this proposition is accepted – and this paper invites feedback on its acceptability – then certain consequences follow. For example, an ‘independent’ project has the same basic attributes as a program, except for management coordination of ‘component’ projects, and some allied consequences. In comparing programs and projects (which is often done in the literature), it is therefore important to distinguish between ‘independent’ projects and ‘component’ projects within a program, to avoid misunderstandings, or indeed misrepresentations. Examples are given.

It is further noted that emerging broader perceptions of the scope of projects indicate several commonalities between ‘independent’ projects and programs. However, programs and projects are different, and it is suggested that the program management literature should focus more attention on program-distinctive attributes.

DIVERSE UNDERSTANDINGS OF THE NATURE OF PROGRAMS

In the non-major program literature I found some 36 different definitions/descriptors of programs and program management from 1991 to 2007. Over these years, there is some evidence to support the contention of Maylor et al 2006 that

An emerging definition of a programme appears to involve the co-ordinated management of a series of inter-connected projects and other non-project work for the delivery of a specific package of benefits....

It is noted that this emerging definition is closely associated with organisational betterment program contexts, which tend to dominate the non-major programs literature. However, the above program definition/descriptor does not so readily accommodate major programs/ projects, where the primary emphasis tends to be on assets delivery. Additionally, as Frame 2008 says in relation to US Federal Government acquisition programs:

The standard definition of programs – a collection of multiple projects working to produce a deliverable – is technically accurate, but tends to trivialise what actually happens. If you look at how real programs function, you will see that their management rests on three pillars: 1) managing the budget, 2) managing the contract, and 3) managing the program itself (e.g., physically building an aircraft). For major programs to achieve successful outcomes, each of these three areas must be managed effectively.

These diversities, and others, were discussed in more detail in Stretton 2009b. Reflecting on these diversities led me to look for an approach which might give a broader perspective on the nature of programs, to cover all program types. Eventually I came to look at the circumstances in which programs/projects, and indeed portfolios, are initiated, to see if this led to any insights, as now discussed.

A PERSPECTIVE ON THE INITIATION OF PROGRAMS, PROJECTS, AND PORTFOLIOS

A basic initial proposition

After looking at many alternatives, I developed the following very generic depiction of how and why programs are initiated. This depiction also covers projects and portfolios, and appeared to cover all types of programs/projects/portfolios that I was aware of.

Programs/projects/portfolios are initiated through recognitions of broader needs/opportunities that cannot reasonably be satisfied within normal operational or equivalent processes. This then prompts initiation of specific programs/projects/portfolios to help satisfy these needs.

A generic process initiating projects, programs and portfolios

Following the above depiction, a generic process of initiating programs/projects/portfolios could then be represented as follows.

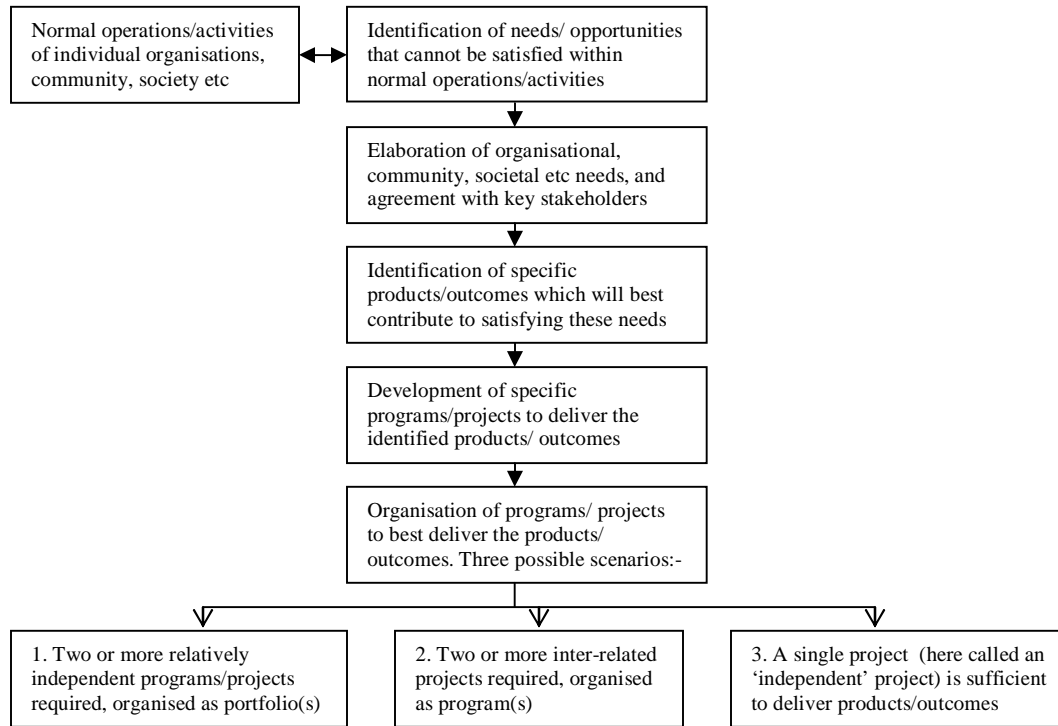


Figure 1: A generic perception of how programs/projects/portfolios are initiated

One of the purposes of this paper is to invite comments as to whether this depiction covers all types of situations in which programs, as well as projects and portfolios, are initiated.

It is noted here that the project management literature focuses heavily on the needs/opportunities being derived from organisational strategic planning, which would certainly appear to be the most common situation. However recognition of needs/opportunities may arise from other causes, such as in emergency situations, so I have deliberately generalised the above to take account of such circumstances.

Needs satisfaction via portfolios, programs or independent projects?

From Figure 1 above, there are three possible ways of organising programs/projects to deliver the products/outcomes which will best contribute to satisfying identified needs. These are not mutually exclusive. In many cases, adopting one solution may be adequate. In other cases, it may be necessary to go beyond this, and select a combination of two of these solutions, or even a combination of all three.

The combinational possibilities are well represented in the following figure from PMI 2006b.

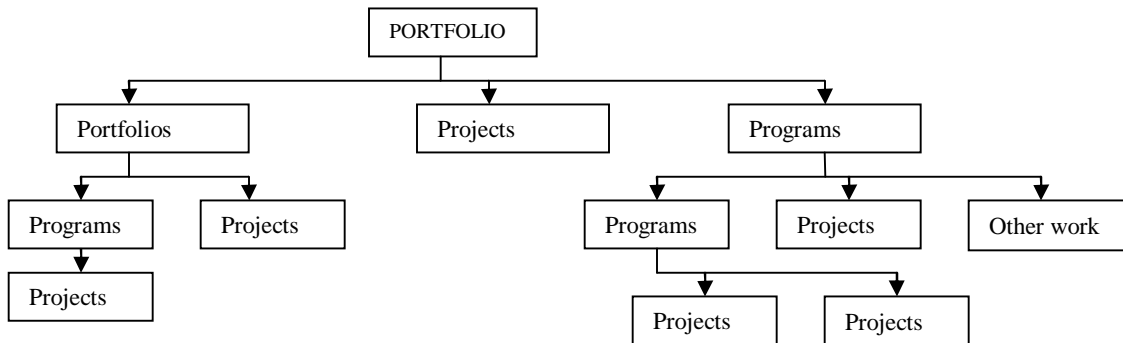


Figure 2: PMI 2006b Figure 1-1. Portfolio Relationships - Example

We look at the three individual solutions in turn.

Two or more relatively independent programs/projects required, organised as portfolio(s)

The word ‘portfolio’ has been used in many different ways in the program/project literature, but there appears to be an emerging agreement that it covers groups of programs and/or projects which may be relatively independent (as opposed to the interdependence of component projects within programs).

Two or more inter-related projects required, organised as program(s)

It is probably the more common situation that, when two or more projects are needed to deliver the required products/outcomes, they will be interdependent, and organised as a program, or programs.

A single project (here called an ‘independent’ project) is sufficient to deliver products/outcomes

In some cases, the scale of the initiative may be such that a single project will suffice to deliver the desired products/ outcomes. I have called such projects ‘independent’ projects, to distinguish them from ‘component’ projects within a program.

Once again, I invite comment as to whether the above adequately covers real-world situations with the initiation of programs, as well as projects and portfolios.

In the meantime, I observe that the above type of distinction between projects, programs and portfolios is becoming more generally recognised in the program/project management literature. As Maylor et al 2006 say:

Anderson and Jessen [make] a distinction between project management, program management and portfolio management. [My bullet points]

- The first [project management] involves the management of individual projects;
- the second [program management] refers to a collection of projects with a common objective;
- the third [portfolio management] concerns the management of a number of projects and programmes that do not necessarily share a common objective but are undertaken simultaneously.

COMMENTARIES ON RELATIONSHIP BETWEEN PROJECTS AND PROGRAMS

It is important to distinguish between ‘independent’ projects and the ‘component’ projects of a program

From the above analysis, it is evident that an ‘independent’ project has the same basic attributes as a program, except for the choice and management coordination of ‘component’ projects, and some allied consequences.

Several authors make comparisons between programs and projects, but generally they are evidently talking about ‘component’ projects of a program, rather than about ‘independent’ projects. When making such comparisons, it is obviously vital that authors specify whether the project is ‘independent’, or a ‘component’ project within a program. Otherwise such comparisons can be misleading, or simply incorrect, and this happens quite frequently, as is illustrated in the following extract from PMI 2006a, Table 1.1

[Tabulation on portfolio management omitted from the following. Order of items changed - my numbering]

Project	Programs
1. Projects have a narrow scope with specific deliverables	Programs have a wide scope that many have to change to meet the benefit expectations of the organisation
2. The project manager tries to keep change to a minimum	Program managers have to expect change and even embrace it
3. Success is measured by budget, on time, and products delivered to specification	Success is measured in terms of Return on Investment (ROI), new capabilities, and benefit delivery
4. Project managers are team players who motivate using their knowledge and skills	Program managers are leaders providing vision and leadership
5. Leadership style focuses on task delivery and directive in order to meet the success criteria	Leadership style focuses on managing relationships, and conflict resolution. Program managers need to facilitate and manage the political aspects of the stakeholder management
6. Project managers conduct detailed planning to manage delivery of the products of the project	Program managers create high-level plans providing guidance to projects where detailed plans are created
7. Project managers monitor and control tasks and the work of producing the project’s products	Program managers monitor projects and ongoing work through governance structure
8. Project managers manage technicians, specialists, etc.	Program managers manage project managers

Figure 3: Derived from PMI 2006a: Table 1.1 Comparative overview of project, program, and portfolio management

In this example, PMI 2006a is evidently talking about ‘component’ projects under the Project heading. In the case of an ‘independent’ project, the project manager would need to cover the program sections of items 1 to 4, and (arguably) some of the functions in items 5 to 7.

A somewhat similar situation appears in OGC 2007:4, which states that “Programmes deal with outcomes; projects deal with outputs”. In this case, OGC goes on to make it clear that this statement applies to ‘component’ projects of a program. However, the statement has been quoted by others without reference to its following contextual explanation, and has therefore been interpreted as applying for all projects, which is simply not the case.

Broader perceptions of the scope of projects indicate several commonalities between ‘independent’ projects and programs

...projectification has considerably extended the definition of ‘a project’ way beyond the current definitions in the literature (Maylor et al 2006)

Winter et al 2006 make the point that new classes of projects have been emerging in recent years.

An important development in project management in recent years has been the emergence of a new class of projects, in areas such as organisational change and IT, integrated business solutions, and long-term public service delivery. Often referred to as ‘business projects’, this new class of projects (and programmes) reflects a growing conceptual shift away from the traditional engineering view of projects, towards a more business-oriented view, in which the primary concern is no longer the capital asset, system or facility etc, but increasingly the challenge of implementing business strategy, improving organisational effectiveness, and managing the realisation of stakeholder benefits.

With regard to ‘integrated solutions’ projects, Maylor et al 2006 make the point that these new project types extend the timescale of the project beyond the conventional four-phase project life-cycle.

In contrast with the generic life-cycle of four phases – concept, definition, execution, closeout [Archibald 1976] – integrated solutions projects extend the timescale of the project back into pre-bid or pre-offer phases and forward beyond the handover stage into the operational life of the system.

They also challenge the validity of some of the cornerstones in conventional definitions of projects, such as temporality, uniqueness and level of pre-determinism.

Fern 2008 says that the 4th Edition of the PMBOK Guide (PMI 2008) “has not considered the possibility that any new paradigm may be emerging”. He goes on to say:

Those twelve chapters [of PMI 2008] establish a paradigm that

- precludes an approach to project management different from that of Bill Duncan's 1996 committee,
- fails to encourage inclusion of materials excluded from previous editions,
- ignores hard evidence that processes documented in PMBOK have become obsolete in the face of global competition, and
- dooms PMI to become a monument to a period in the development of project management rather than an instrument to extend its development.

The emerging project types discussed above reflect characteristics of what I have called 'independent' projects. In other words, the broadened concerns with getting the 'front end' right, and being involved in ensuring that the desired outcomes are achieved, etc, are not confined to program management, but are increasingly being recognised as characteristic of the management of many modern 'independent' projects.

However, programs and projects are different, which suggests that the program management literature should focus more attention on program-distinctive attributes

'Independent' projects differ from programs mainly in respect of the choice and management coordination of 'component' projects - and some allied consequences - relating to the latter. 'Component' projects differ in rather more substantial ways.

In spite of these differences, there are several criticisms in the literature that many 'standard' program processes are represented rather directly as up-scaled project processes. For example, Thiry 2004a says

A number of textbooks and papers (CCTA 1999, Reiss 1996, Gareis 2000, DSMC 2000, NASA 2001) have suggested program processes that, albeit their different designations, are in most instances just transpositions of the project paradigm into program management.

Lycett et al 2004 give another example of this type of claim:

The assumption of equivalence between programme and project and management is made explicit by Gray [1998] who has claimed that a programme, project, sub-project and work package are simply different levels in a hierarchy of project-type activities.

There is a prominent literature source which appears to be ambivalent on this issue, namely PMI's "The Standard for Program Management" (PMI 2006a). On the one hand, PMI 2006a:7 specifically recognises the distinctive attributes of program management in similar terms to those already discussed elsewhere:

Program managers coordinate efforts between projects but do not manage them. An essential program management responsibility is the identification, rationalisation, monitoring, and control of the interdependencies between projects; dealing with the escalated issues among the projects that comprise the program; and tracking the contribution of each project and the non-project work to the consolidated program benefits.

On the other hand, PMI 2006a does not particularly focus on these distinctive attributes of program management in its detailed development. Instead, it appears to reflect the position it describes on p. 78:

The team recognised early that the processes for program management closely paralleled those of project management, but were larger in scope.

This appears to imply that PMI 2006a has essentially followed processes based on project management, and could therefore be seen as an up-scaled project process model. Such an implication appears to be supported by the fact that PMI 2006a tends to follow the format of the PMBOK Guide in the way it handles the topic of program management.

These types of criticisms raise another issue. As is implied above, it seems obvious that the literature on program management should focus on attributes that are distinctive to programs.

The counter argument, which appears to be more dominant at present, is that the program management literature should present a total picture of the work to be done to manage programs successfully.

This is a perfectly reasonable perspective, but my point is that the factors that are distinctive to program management should first be identified and discussed in detail, before going on to discuss materials which are shared with project and/or general management. Such program-distinctive attributes currently receive too little attention in the literature.

CONCLUDING

In this discussion paper I introduced a generic depiction of program/project/portfolio initiation, based on the proposition that programs/projects/portfolios are initiated through recognitions of broader needs/opportunities that cannot reasonably be satisfied within normal operational or equivalent processes. These then prompt initiation of specific portfolios and/or programs and/or projects to help satisfy these needs. Which of these is chosen will depend on factors such as scale/complexity – if large, portfolios of programs/projects may be needed; if moderate, programs may suffice; if small, a single 'independent' project may be all that is required to satisfy these needs.

The primary purpose of introducing this proposition is to ask researchers and practitioners in the many different application areas of programs/projects whether this proposition applies to them in their contexts, and, if not, how we could move towards an agreed common understanding of the origins of programs, projects and portfolios.

I then discussed some consequences of an acceptance of this proposition. One was that an 'independent' project has the same basic attributes as a program, except for the addition of choice and management coordination of 'component' projects, and some allied consequences. I went on to say that, in comparing programs and projects - as is often done in the literature - it is important to distinguish between 'independent' projects and the 'component' projects within a program, to avoid misunderstandings, or indeed misrepresentations.

Finally, I noted that broader perceptions of the scope of projects have been emerging in the literature in more recent times, and these indicate several commonalities between 'independent' projects and programs. But ultimately, programs and projects are different, and it is suggested that the program management literature should focus much more attention on program-distinctive attributes.

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