A CLASSIFICATION OF PROGRAMMES
AND ITS MANAGERIAL IMPACT

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ABSTRACT

The paper describes the results of an exploratory research study on the application of programme management in six companies. A classification of programmes is developed that may help in understanding the differences between programmes and the managerial impact of these differences.

The research shows that the formalised and rigorous approach as described in most programme management handbooks is not widely adopted. The cases show less centralisation, less formalisation and less management of the interdependencies between the projects in the programme than one would expect on the basis of the programme management literature. This is especially the case in programmes that originate as a grouping of a set of existing projects. Yet, formalisation is mentioned as the main success factor in managing programmes.

INTRODUCTION

Contrary to project management, which is a concept that is clearly understood by both academics and practitioners, programme management seems to be a term that hasn't reached this maturity yet. The results of a survey carried out by e-Programme.com early 2001 illustrate the confusion. Visitors to the e-Programme web-site were asked what programme management means to them. Approximately 50% of the respondents agreed that programme management is "the management of organisational change through projects that bring about change", rather than "the management of multiple projects". 40% of the respondents on the other hand, agreed that programme management is "the management of multiple projects, regardless of the purpose of these projects". Although anecdotal, this disagreement on the definition of programme management shows that the field is in an early stage and that it merits researchers' attention.

It has been our objective to gain a better understanding of programme management and to identify some of the reasons for success or failure of programme management. Six case studies have been carried out in companies located in Belgium. This paper reports on the conclusions from these case studies.

PROGRAMME MANAGEMENT

In the literature, many definitions have been given of programme management, ranging from the management of a collection of projects to the management of change.

Russell describes it as "a tool that has evolved out of project management, ... that helps organise many interrelated projects". (Russell, 1998) Reiss states that programme management is "the co-ordinated management of a portfolio of projects to achieve a set of business objectives". (Reiss, 1996)

Pellegrinelli stresses the benefits of programme management. He defines a programme as a framework for grouping existing projects or defining new projects, and for focusing all the activities required to achieve a set of major benefits. He adds to it "the projects are managed in a co-ordinated way, either to achieve a common goal, or to extract benefits which would otherwise not be realised if they were managed independently". (Pellegrinelli, 1997)

The OGC (Office of Government Commerce in the UK) provides a similar definition, but adds the notion of change management and the strategic nature of the pursued benefits to it: "the co-ordinated management of a portfolio of projects that change organisations to achieve benefits that are of strategic importance". (1999) The idea of a change process is stressed even more by Ribbers and Schoo, who argue that programme management is "a controlling instance for a transformation process, i.e. the design, development, and deployment of changes to the organisation and IT, following a result path, that in turn is governed by projects." (Ribbers and Schoo, 2002)

The wide range of definitions of programme management may be a symptom of the early stage in which the field of research is. It may also indicate, however, that different types of programmes exist. A clear classification of programmes would help us understand the differences in programmes and in the approach taken to programme management. Pellegrinelli has developed an interesting classification. He distinguishes between "portfolio, goal-oriented and heartbeat programmes". (Pellegrinelli, 1997) The "portfolio programmes" group relatively independent projects that have a common theme. The "goal-oriented programmes", according to Pellegrinelli, enable the management of initiatives or developments outside the existing infrastructure or routine. As an example, he mentions the development of a commercial application from a new technology. The "heartbeat programmes" enable the regular, incremental improvement of existing systems, infrastructure or business processes.

Although Pellegrinelli's classification has high face-validity, it fails to provide a conceptual basis that allows us to understand why these three categories would be sufficient for describing and categorising all programmes. Analysis of the descriptions of the three categories shows that Pellegrinelli's classification implicitly builds on two dimensions. On the one hand there is the extent to which the projects already exist at the launching of the programme. Whereas the "portfolio programmes" start by grouping fairly independent, existing projects, the "goal-oriented programmes" seem to refer to the start of a new initiative. On the other hand, there is the impact the programme will have on the business. "Goal-oriented programmes" aim at something radical, which may ultimately replace existing core business processes, whereas the "heartbeat programmes" try to change processes incrementally.

This observation has lead us to the definition of a new conceptual classification of programmes, on the basis of two dimensions:

- the extent to which projects exist at the launching of the programme, and
- the business impact of the programme

This results in four distinct types of programmes, as shown in Figure 1.

Insert Figure 1 About Here

Type A- programmes are defined as a group of several existing projects, each with relatively limited business impact. These projects are relatively independent initiatives, which have been set up in different parts of the organisation, and are brought together under the new programme. The goal of the programme is to benefit from the synergies between these projects, realising that the projects share some common objectives. Type B-programmes are also launched by grouping several existing projects. However, given the high business impact of the projects, the risk of going into very different directions with the existing projects dictates the need for timely integration of these projects into a unified programme. At the time of launch of type C and D programmes, no projects associated with the objectives of the programme are being carried out in the company. These programmes start "from scratch" as new initiatives. As the programme is initiated, the portfolio of projects that are part of the programme is defined. Depending on the extent to which the programme impacts the business, we categorise the programme under type C (relatively limited impact) or type D (high, business-wide impact).

The research is exploratory. It is our objective to explore the aspects of management that differ across the four categories of programmes, irrespective of the industry in which the company is active. Previous research has shown that for ERP-implementations the way the programme is managed should differ depending on the degree of complexity of the programme. (Ribbers and Schoo, 2002) The question raised in our research is whether other variables, especially those extracted from Pellegrinelli's framework, matter in determining how to manage the programme. A second objective of the research is to understand the problems encountered by programme managers and to identify some of the critical success factors of programme management.

RESEARCH METHODOLOGY

Given the exploratory nature of the research, case research has been conducted. Six large companies located in Belgium have participated in the research. The companies have been selected from three different industries: banking and insurance, telecom and electronics manufacturing. In each company, one programme has been studied. The programmes are of a very different nature:

- e-business development in an international electronics company (programme 1),
- e-business development in an insurance company (programme 2),
- the exploitation of synergies between the insurance and the banking division of a large financial company (programme 5)
- the development of a new pricing structure for a major product range in a telecom company (programme 4).
- the development of a new technology for a new market in a telecom company (programme 5)
- the merger of two large banks (programme 6)

Semi-structured interviews have been conducted with managers in each of the six companies, at different organisational levels: top management, programme management, project management, and project execution. In total 36 people have been interviewed. The interviews have been conducted by a team of two researcher. One of the researchers has assisted in all interviews, in order to guarantee a standard approach across all cases and in all interviews.

In order to obtain rich insights into the approach taken to programme management for these six programmes, most of the questions asked during the interviews were open-ended. A written report has been made for each of the interviews. Three researchers have then coded this report independently, searching for the variables that had been discussed by the interviewees. The list of codes that emerged from this exercise has then been compared and discussed by the researchers upon completion of each case study. In doing so, the list of topics discussed during the interviews has grown and the format of the reports has standardised. This

has allowed us to gradually build an understanding of the approach to programme management developed in the distinct cases. (Eisenhardt, 1989)

The final list of topics that have been analysed across the six cases is shown in Appendix 1.

Insert Appendix 1About Here

The assignment of the six cases to the four categories of the framework has been done by each of the researchers independently, and has subsequently been discussed until agreement was obtained.

RESEARCH RESULTS

The six cases are distributed over the four categories of programmes, as is shown in Figure 1.

As stated earlier, our hypothesis is that the different types of programmes are managed differently. In order to detect the management variables that differ across the four categories, the cases have been compared on the set of programme management variables that have been discussed during the interviews (listed in Appendix 1). Most of these variables did not show important differences across the four types of programmes. However, we observed clear differences in the following variables:

- the extent to which the interfaces between the projects that are part of the programme are managed tightly
- the degree of centralisation of the management of the programme
- the degree of formalisation of the programme methodology

In the programmes with a high number of projects at the start (type A and B) the interfaces between the projects are managed loosely, whereas in the programmes with a low number of projects at the start (type C and D) the interfaces between the projects are managed strongly. One case forms an exception to this observation. It is one of the D-type programmes, where we would expect strong management of the interfaces between the projects. This is not the case. Our assumption is that this is caused by the lack of experience this young and high-growth company has with programme management. Managers in this company stated that

their objective is to strengthen the management of the interfaces between the projects, which supports our assumption.

The programmes with a high number of projects at the start (type A and B) are managed in a less centralised way than the programmes with a low number of projects at the start (type C and D).

The degree of formalisation of the programme methodology is low in all cases. A formal approach is usually limited to the first stages of the projects in the programme, that is the project request and project definition phase. We do however observe a higher degree of formalisation of the programme methodology in programmes with a low number of projects (type C and D) than in programmes with a high number of projects at the start (type A and B). Apparently, the history of the existing projects at the start of a programme hinders centralised and formalised management of the programme.

As far as performance measurement is concerned, we have observed that the focus of the programme managers appears to be more on the follow-up of time and quality performance than on the cost of the programme. It is striking that, irrespective of the type of programme, we have observed very few aspects of benefit management. This certainly conflicts with the belief in the literature that "benefit management is a core activity and a continuous management process running throughout the programme". (1999)

Finally, we have investigated the determinants of success and failure of the programme, as perceived by the interviewees. About fifteen issues have been mentioned as critical success factors by the interviewees, and even more pitfalls have been mentioned. Ranking these issues according to the frequency with which they have been mentioned shows the top-three success factors and pitfalls in programme management in the six cases. This top-three is listed in Table 1.

Insert Table 1 About Here

Most surprising on this list is the perceived importance of formalisation in programme management. We recall that we have concluded earlier that the programmes studied are not managed in a very formalised way, and that this is especially the case in those programmes that originate as a grouping of existing projects. Table 1 shows however that the programme and project managers acknowledge the importance of formalisation. Several interviewees

have mentioned the involvement of consultants as an important means to introduce formalised programme management techniques and methodologies into the programme.

DISCUSSION

The definitions of programme management discussed in this paper stress the co-ordination of the projects that constitute the programme. We have indeed observed a strong management of the interfaces between the projects in the C and D programmes. However, in the set of programmes established by grouping existing projects (A and B), we find less co-ordination of interrelated projects. The explanation can be that the co-ordination between projects is difficult to achieve if not set up at the start of the projects. Consequently, the major advantage of programmes, that is to benefit from synergies between projects, is hard to achieve if the programme is created as a grouping and alignment of projects that already existed. Another possible explanation goes back to our initial remark that programme management is still a young area in management research and is often misunderstood. The question then is whether all cases that have been mentioned to us by the practitioners as examples of programmes are indeed programmes according to the strict definition. While this discussion questions the definition of programmes and strengthens the argument that there are different types and probably different degrees of programmes, it doesn't help the practitioner who is looking for advice on how to manage a programme. It is clear that in order to achieve the full benefits of a programme the synergies between the distinct projects need to be exploited. Our advice to the practitioner then is to give extra care to the exploitation of these synergies in programmes that are set up as a grouping of existing projects, since the co-ordination will be hindered by the history of the projects.

The cases also illustrate the difficulty in managing programmes in a central and formalised way if the programme finds its origin in the grouping of existing projects.

Overall, we can conclude that the extent to which projects exist at the start of the programme is much more a determinant for the way the programmes are managed than the business impact of the programme. Managers hoping to achieve stronger benefits by grouping existing projects under the "umbrella" of a new programme will have to realise the difficulties they will face as they try to manage the interdependencies between the projects, apply a common methodology to these projects, and centralise some decision making.

It is striking that the degree of formalisation of programme management methodology is low in all cases, despite the fact that formalisation is cited as the number one success factor,

and lack of formalisation is mentioned as the top reason for failure. This is even more surprising if one looks at the offer of programme management methodologies in the literature. See for example (Wideman, 1986; Reiss, 1996; 1999; Springer, 2001) As in project management, the methodological expertise available in consulting companies is a valuable complement to the technical and business expertise available in the company that engages in the programme. (Brown, 2000)

It is also intriguing that the degree of formalisation is limited to the early stages of the programme, especially to the definition phase of the projects and is less applied in the project execution phase. This confirms Payne's argument that a consistent approach and standard procedures are required at the strategic level in the programme, that is where project definitions are developed and where milestone plans and project responsibilities are set for each of the projects in the programme. At the detailed, tactical level he suggests that a tailored approach depending on the type of the project is more appropriate. (Payne and Turner, 1998) On the other hand it seems to contradict the findings of Ribbers and Schoo, who argue that in ERP programmes there should be room for innovation and experimenting in the initial, preparatory phases of the programme. In the programme roll-out phase on the other hand, a strict policy should be followed. We believe the confusion may come from the need for a sharper identification of the unit of analysis in programme and project management research. A highly formalised programme management methodology does not necessarily imply a highly formalised project management methodology for each of the subprojects in the programme. Nor does it automatically imply that project methodologies are identical across the different projects in the programme.

The interviewees have not stressed benefit management and have only seldom mentioned it spontaneously. Rather, the performance of the programme has been illustrated through extensive discussions of cost, quality and time performance, at all management levels we have interviewed. Very few discussions arose related to the benefits achieved through the programme, and how these benefits are measured. While this doesn't mean that there would be no benefit management in the programmes, it illustrates that the managers tend to focus much more on the traditional project performance measures of cost, quality and time than on the overall programme benefits.

LIMITATIONS AND FUTURE RESEARCH

The research reported here is exploratory. It raises questions and sets hypotheses, it doesn't give any answers. The low degree of formalisation, the relationship between the degree of formalisation and the phase of the programme, and the relationship between the number of projects at the start of the programme and the way the programme is managed are observations that need to be tested in future, larger scale studies.

Most of the variables discussed in this paper have been drawn from the interviews with project and programme managers. An important element in our future research will be to define the constructs in a rigid way and to develop reliable and valid instruments for measuring these constructs.

Another limitation is the restriction to companies located in Belgium. Culture might play a role in the programme management approach and style. Comparison of our conclusions with observations in companies in other countries is necessary to improve the external validity of the research. We conclude from our observations that programme management is still in its infancy. While we have no indications to believe that this would hold specifically for Belgian companies, research on a larger geographical scale is needed to confirm our conclusion.

CONCLUSION

The literature defines programme management as the co-ordinated management of a set of projects with a common, strategic objective. Highly formalised methodologies for programme management have been described in the literature. One can argue that in order to achieve maximum benefits through programme management, it is necessary to manage the interdependencies between the projects in a strong way, to formalise the programme methodology, to centralise or at least co-ordinate the programme efforts, and to focus heavily on benefit management. Our cases confirm this description only partially. Most of our cases are less formalised and less integrated than dictated by the literature. This may be an indication of a lack of experience with programme management. If this hypothesis is correct, it implies that we will find more examples of "strong programme management" in the future. Another explanation may be that the company or national culture plays a role. A formal and integrated approach may be more successful in some companies or in some countries than in others. Or maybe we should conclude that Payne's argument that different projects require

different managerial approaches (Payne and Turner, 1998) may well hold also at the level of programme management.

Our development of a classification of programmes has been a first step in our study of contingencies in programme management.

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FIGURE 1

<table>
<tr>
<td rowspan="4">Extent to which projects exist at launch</td>
<td>high</td>
<td>A
Grouping of existing projects with limited impact

case 1</td>
<td>B
Grouping of existing projects with company-wide impact

case 2</td>
</tr>
<tr>
<td>low</td>
<td>C
New initiative with limited impact

case 3 & 4</td>
<td>D
New initiative with company-wide impact

case 5 & 6</td>
</tr>
<tr>
<td></td>
<td>low</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td colspan="2">Business impact</td>
</tr>
</table>

APPENDIX 1

Interview topics

	Issues discussed
Related to the programme	– Priority of the programme – Strategic significance of the programme – Top management involvement – Clarity of programme objectives – Scope of the programme – Perceived usefulness of the programme – Feasibility of the programme – Programme risks – Programme structure – Size (budget, time frame, number of people) – Role of IT in the programme – Feeling of urgency – Stage the programme is currently in – Extent to which the programme came (un)expectedly – Personality of the programme manager (skills, vision, approach, experience, characteristics)
Related to programme management	– Allocation of people to the programme (full-time or part-time, temporarily or permanently) – Extent to which interfaces between projects are managed – Expertise at programme management level – (de)centralisation – formalisation of methodology – planning – output and behaviour control – formalisation of communication – sustaining lateral relations – socialisation – incentive policy – criteria for selection of team members
Related to the people involved in the programme and its projects	- Slack capacity - Promotion opportunities - Perception of conflict and approach to handling conflict - Resistance to change - Extent to which programme is planned in career plan - Preference for routine or new tasks - Role within the programme - Preference for certain types of rewards - Prior experience with project work and programmes

Related to the organisational context	- age of the company
	- complexity of the organisation
	- management of innovation
	- approach to knowledge management
	- visibility given to programmes in the organisation
	- presence/role of programme support
	- organisation structure
	- technical expertise in the company
	- project management expertise in the company
	- programme management expertise in the company

TABLE 1.

Success factors and pitfalls in programme management

Top-three	Success factors	Pitfalls
n°1	formalisation of the programme methodology	lack of formalisation of the programme methodology
n°2	role and capabilities of the programme manager	company culture not change-minded
n°3	presence and role of a programme support group or office	extent to which information technology is part of the programme