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SECTION 3. General issues in management

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The popularity of project work – A contemporary paradox?

Abstract

The Nordic countries early took on the project approach as a convenient problem solving vehicle for high technical installments. Particularly in Norway, when the discovery of the rich oil and gas resources in the North Sea was decided to develop as “projects”. Today it hardly needs stating that project work has become the most popular tool in contemporary society for planning and executing large-scale, complex investments. Projects in the public and private sector are synonymous with goal-directed activity, effective resource utilization and personal dedication. The modern project concept encourages originality, flexibility, interpersonal collaboration and development.

But at the same time, project work is now known to generate a number of problems. So while project management guides proliferate in the form of books and articles showing how success can be achieved through project work, the actual results are mixed. History can point to at least as many fiascos as successes. What explains the popularity of project work in the face of the problems that affect so many projects?

The article explores two of the main conclusions from a study of perceptions of project work in society, especially possible differences between the way private compared to public entities are affected. First, respondents clearly believe project work has changed several areas of society, though the degree or magnitude of the impact varies. In some areas, project work has clearly generated new ways of behaving and thinking benefiting both public and private organizations. In other areas, though, the impact is apparently marginal. Some of these are particularly concerning as they are frequently drawn on to justify this form of work in practice. Second, project work raises several paradoxes. While projects are beneficial, these selfsame implications often create problems for the business, institution or individual in modern societies. The article discusses some of these consequences and paradoxes and concludes by suggesting what could and should be done to mitigate the problems, and improve current project management research and training.

Keywords: project history, project trends, project paradoxes, project management improvements.

JEL Classification: H43.

Introduction

1. The study’s pre-history

Several reasons have been proffered to explain why project work has gained such widespread popularity. Primary among them are as follows: projects are said to engineer change in a more effective and successful manner (Birchall & Lyons, 1995); projects enable superior financial management of limited resources (Bøhren & Gjørnum, 1998); projects enhance organizational control (Morgan, 1989); projects sharpen competitiveness (Pucik, Tichy & Barnett, 1993); and project work suits the modern knowledge society and highly qualified worker (Salancik & Pfeffer, 1978). As several commentators have observed (Lundin & Søderholm, 1995; Blomberg, 2003), the crucial difference between project work and traditional line work consists in the higher technical, economic and social efficiency standards required today, combined with innovation and personal commitment within clearly defined limits. While the line tends to operate on the basis of a longer-term, more sustainable platform, the project aims at delivering an end product before “self-destructing” as an organization (Andersen, 2005). Projects substitute adhocracy for bureaucracy (Cleland & King, 1983). Projects are, thus, used today in equal

measure as an organizational tool (Andersen, op. cit.) and technical-economic mechanism for managing and controlling limited resources. Predictable methodology consequently gives way to looser networks, dissolvable teams and projects under continual reconfiguration, constantly initiated and terminated, in answer to the challenges occurring at any one time (Røvik, 2006). Private enterprise has clearly understood how much can be gained from running projects alongside ordinary line functions; in practice, there can be as many temporary structures as permanent ones in a modern economy. Especially in the Nordic countries government has adopted the project concept across ever wider areas, not least in the form of NPM – New Public Management – to implement greater and lesser political decisions (Larson & Globeli, 1987).

The question is whether increased use in so many areas of society has changed how individuals, businesses and organizations think and behave and how societal undertakings are executed from project work being the result of contemporary trends. Has it turned into a trendsetter itself?

These questions were the backdrop for a feasibility study that was conducted in late 2007 with the assistance of the Norwegian Center of Project Management (NSP, 2007). As study found the questions to be of relevance, NSP kindly provided further fund-

ing for a wider study to determine whether parts of the economy and society in the Nordic country Norway had been particularly affected by the use of projects, and whether attitudes towards this method of work had changed as well.

1. Analytical model

After examining several possible analytical models,

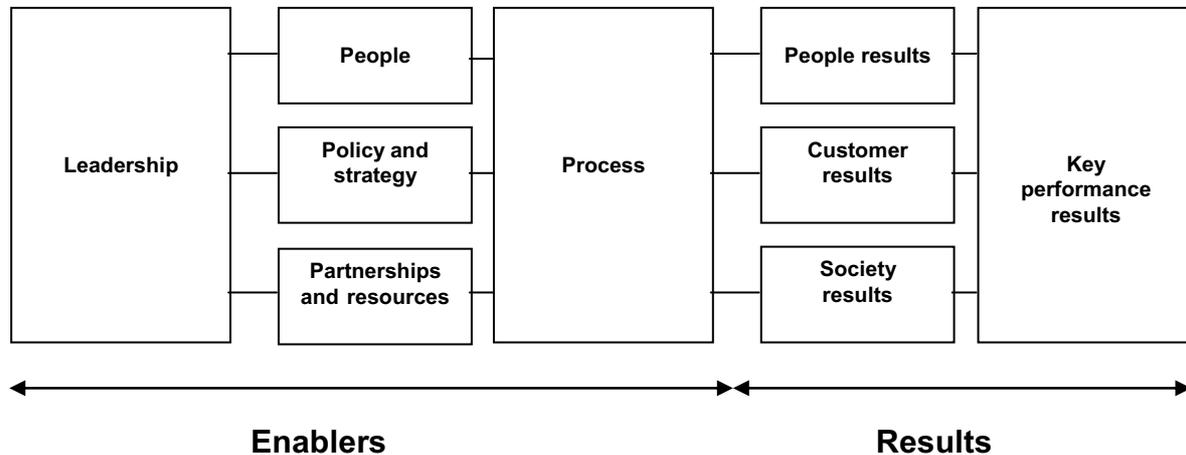


Fig. 1. The model

The model is based on the TQM principles of management of an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society (ISO, 1994).

Expanding on this, the EQA model creates links between key operative areas in a normal organization in a logical pattern. If the operative elements within and relations between each of the areas are logically aligned and satisfactory, they should impact positively, directly and indirectly, the organization's strategy, employees, customers, society as a whole, and ultimately, therefore, the organization's economic performance. The model utilizes possible connections between the management's strategic decisions, how these decisions are taken, how resources are managed and allocated, how individual members of the organization are treated, how the manufacturing process proceeds, how satisfied or content the organization's members are, how satisfied the customers are and how society as a whole reacts to the organization's actions to ensure overall profitability. The model has been tried and tested, usually with satisfactory analytical results (Zain, 1998). Because the model contains all operative areas considered to be of significance today in contemporary project management as well, it was deemed appropriate as a means of evaluating the impact of project work on public and private enterprise. The model has nine basic operative areas divided into two groups of operative elements termed indi-

we chose the European Quality Award Model, EQA. The basic premise is that the results achieved by an organization depend crucially on the behavior of the organization's employees. This behavior is in turn largely determined by the internal business or organizational culture, employee skills/qualifications, and attitudes towards their own organization. The model is depicted in Figure 1.

cators in this article. Five of these indicators are allocated to the preparation and execution phase ("enablers"), referred to in the figure as the execution phase and four in the results phase (Kanji, 1995). The division into phases and indicators is consistent with the way projects are conducted, focusing particularly on the project's downstream activities such as execution and result generation.

The model is not without its weaknesses, the most prominent of which is possibly the difficulty of posing concrete questions that give measurable answers for all of the indicators included in the model. Nor is it given that all of the inter-linkages are suited to project work. The results of the study should, therefore, at this stage be approached more in terms of "systematic inference". That said, the findings are sufficiently interesting to merit conclusions concerning practice, research and training in project management and work.

2. Database

The data on which this study is based were provided by alumni of the Norwegian School of Management BI. Permission to use the database was generously granted. It was a conscious choice insofar as BI alumni are generally considered knowledgeable of and experienced in project work and management. Correctly filled in questionnaires were returned by 218 individuals. Average age of 86 per cent of the database was 38, plus/minus 10 years. 54 percent male, 46 percent female. As anticipated, as many as 86 percent were employed as executive or middle managers. All respondents gave Norway as their

main reference country, but about 15 percent had also considerable experience of working abroad.

Although the database met the criteria with regard to volume and composition, there was noticeable bias in some areas. For instance, 77 percent of the respondents worked in private firms, and only 23 percent in public sector organizations. Further, 73 percent of the respondents worked for firms with a payroll of more than 50 employees. 93 percent of the public employees worked for a “large organization”, creating another source of bias. Since the primary reference of the database was BI alumni, we anticipated an overrepresentation of economists, and only 12-13 percent reported a background solely in engineering.

Despite the bias, since the database focused on persons in the 30-40 age-group in executive manage

ment positions with, presumably, wide-ranging decision-making powers, and, also presumably, a good deal of knowledge about project work directly or indirectly as a function of their job, the database was approved as a starting point for the study.

The questionnaire posed 46 questions, of which 32 were directly designed after the EQA model. The questions were designed to detect attitudinal differences between private and public sector organizations. The response scale extended from 1 = extremely negative to 7 = extremely positive. A score of 4,0, hence, suggests no perceived impact or hardly any impact.

3. Results and paradoxes of the analysis

Figure 2 sets out the main features of the analysis.

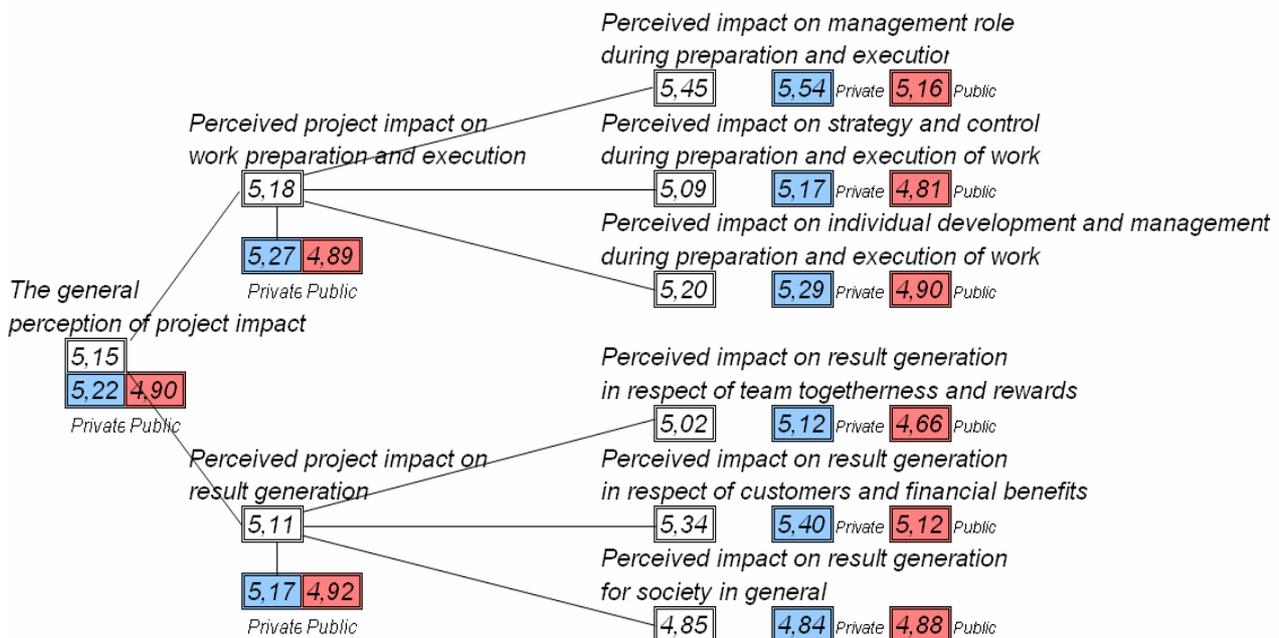


Fig 2. The tree

While the averages may seem rather indistinguishable, T-tests reveal significant differences for almost all of the scores in the figure, respectively ($p < 0.05$ and $p < 0.01$).

As can be seen, an average score of 5.15 equals “somewhat” to “quite a large” positive impact. In that light, what first strikes the eye is *the respondents’ general belief in the beneficial impact of project work.*

There are at the same time significant differences within different areas. One notes in particular the significantly higher ($p < 0.00$) perceived positive impact of project work on the preparatory phase of programs/interventions (5.18) compared to the impact on the result phase (5.11). So, although there is a perceived positive impact on both phases, *project*

work is recognized to have a greater impact on how interventions are initiated, planned and organized than how it is executed and results are generated.

Already at this level paradoxes emerge. The point of project work has always been to improve performance. Both goal theory (Andersen, 2006) and expectation theory (Steers & Porter, 2002) focus on the importance of end product delivery, and the project approach was quickly recognized as the best way of getting this done. Fulfilling of needs and goals similarly became key success factors, and performance and need satisfaction were key success criteria (Andersen & Jessen, 2000). It is, therefore, a clear paradox to find that projects appear to work best in the planning phase of major assignments than in the result stage, according to respondents. The operative question is therefore whether the contemporary fo-

cus on project preparation is a dilution. If it is true that project training and research stress performance and results less than planning and preparations, perhaps resourcing priorities need to be looked into.

Further, as the figures show, there are significant differences between private and public employee perceptions on the magnitude of the impact as well. One notes the overwhelming response of the private sector in emphasizing the benefits of project work relative to the public sector response.

This is another general paradox since both private and public sector employees tend to give a much lower score to the impact of project work on public undertakings. The project approach stemmed originally from government work in the US (Lord, 1989), and the first project tools were designed to improve the management of and ability to run major public programs and investments. In cognizance of the many major projects undertaken today under government management (infrastructure projects, energy projects, health projects), it is surprising to find a significantly lower assessment of the government's ability to reap the benefits of the project

approach than the private sector. Maybe the normative style of management often required by political and democratic systems (Tranøy, 2006) along with the NPM idea of creating quasi-markets for the delivery and consumption of public services (Klausen, 2005) are policies to which the project approach is less suited. It might, therefore, be advisable to consider other implementation methods for public programs. Or government programs could forsake some of the traditional, normative bureaucracy and often random political interventions to achieve success with projects.

3.1. Particular paradoxes. In what follows some of these paradoxes and data are explored and analyzed in greater depth. The first breakdown is shown in Figure 1, where the two main phases, preparations and result generation, are each divided into 3 sub-areas, then further in direct reference to the EQA model. The results obtained from this division are shown in Panels A, B and C of Table 1 below, where a total of sixteen selected impact indicators are defined. Public and private sector respondents were asked to answer specially designed questions for each of these indicators.

Table 1. Tables of ranked influence

Impact area	Panel A			Average score	Private	Public	Cluster category	Project phase
1. Personal activity and development	5,54	5,63	5,24	5,54	5,63	5,24	Personal development	Preparatory phase
2. Management role	5,45	5,54	5,16	5,45	5,54	5,16	Management role in general	Preparatory phase
3. Economic earning power	5,38	5,44	5,16	5,38	5,44	5,16	Economic utility effect and customer relations	Result phase
4. Customer and client collaboration	5,32	5,39	5,09	5,32	5,39	5,09	Economic utility effect and customer relations	Result phase
5. Customer satisfaction	5,30	5,36	5,11	5,30	5,36	5,11	Economic utility effect and customer relations	Result phase
5. Employee satisfaction	5,30	5,39	5,04	5,30	5,39	5,04	Employee mentality	Result phase
Panel B								
7. Division of powers and responsibility	5,27	5,38	4,89	5,27	5,38	4,89	Personnel development	Preparatory phase
8. Own organization's strategic management	5,22	5,26	5,07	5,22	5,26	5,07	Strategy and control	Preparatory phase
9. Internal strategy processes	5,12	5,22	4,79	5,12	5,22	4,79	Strategy and control	Preparatory phase
10. Overall economic growth	5,12	5,11	5,14	5,12	5,11	5,14	Societal implications	Result phase
11. Management of scarce resources	5,07	5,19	4,64	5,07	5,19	4,64	Strategy and control	Preparatory phase
12. Internal social processes	5,03	5,13	4,68	5,03	5,13	4,68	Personnel management	Preparatory phase
Panel C								
13. Treatment of employees individually	4,98	5,04	4,78	4,98	5,04	4,78	Personnel management	Preparatory phase
14. Management of scarce resources	4,95	5,01	4,73	4,95	5,01	4,73	Strategy and control	Preparatory phase
15. Economic reward systems	4,71	4,84	4,27	4,71	4,84	4,27	Employee mentality	Result phase
16. Society overall	4,60	4,60	4,60	4,60	4,60	4,60	Societal implications	Result phase

3.1.1. *Indicators for areas where the impact of project work is thought to be the greatest.* As Table 1 shows, *the most positive changes have occurred in the field of personal activity/development and management role*, irrespective of sector, though the score in the private sector is markedly higher on all indicators. Next, also displaying a considerable impact, is *the effective economic output of the projects*, not least in respect of customers. Here, also, the impact in the private sector is reported to be more positive than in the public sector. A third indicator with a general high score is *employee satisfaction*.

We discuss these factors in greater detail below, especially the paradoxes which the study appears to have revealed.

3.1.1.1. *Management paradox.* The questionnaire defined “management generally” as “project work helps an organization achieve its goals by integrating people, knowledge, technology and environment” (Schein, 1989). “Personal activity and development” was defined as “enabling and encouraging each employee’s personal, individual development by means of relevant projects and assignments”.

There could be many reasons for the high scores attributed to personal activity and development and management role enactment. It would be reasonable to assume a close connection between proficient management and personal satisfaction. And the high score on employee satisfaction, defined as “the results of the project make employees feel encouraged and appreciated”. It is clear then, that employees, especially in the private sector, find project work both appealing and enjoyable. It may be that the pleasure of being challenged professionally in modern knowledge societies means a great deal.

The fact that project work is today a major problem-solving mechanism may be due not only to its technical and economic rigor, rationality and performance levels, but that project work has a positive effect on the modern individual’s growth and development, mentality and behavior. Putting it bluntly, it could be described as the “projectification” of society in these areas where the modern project’s focus on problem solving, target-oriented management and delivery of unique results combine with strict requirements on resource minimization, including human resources. Everything from the major investment, feasibility study and research, to even the slightest of ad hoc interventions, is required to proceed on the basis of a project blueprint. Programs in schools and leisure activities seem also expected to be project-wise. That this is so widely considered to be a positive outcome is probably thanks to the ability of project work to promote a sense of control and professional growth in the individual worker. That

the role of manager benefits as well could mean that managers are better today at detailing, clarifying and encouraging themselves and others to contribute actively to problem solving, and to set relevant limits to their own and others’ activities. Succeeding with the task one has set oneself is one of the key success factors in human activity (Thorsrud, 1969).

At the same time, paradoxes are implied. That so much human activity is goal directed and rigorously defined also limits creativity. Creativity and innovation are considered essential today for successful development. For many of the tasks modern societies need to perform, this must be a problem. It cannot be healthy if projects are so rigidly defined they retard innovation, as, for instance, in the area of basic research, or that artistic activity becomes a type of project-oriented commission instead of a creative, unorthodox and challenging enterprise. Who sets the parameters will also often be a paradox. For projects, parameters are often set by different levels than the person performing the task and without consulting with the individual responsible for its completion. The balance between expectations and possibilities is easily upset. That both the manager and worker get caught in the cross fire between various interests is clearly not a desirable situation. It is, therefore, interesting when the impact of project work on the management role and on employee satisfaction is considered in such a positive light despite the often high demands and stress that come with project work. This being the case, could it be seen as a preference for traditional management with strong leadership and control as two of the manager’s primary tasks? The fact that many people like being led as much as leading themselves is well known. Avoiding responsibility for difficult, weighty decisions may be something more people would like than modern personnel psychology seems to suggest? Recent studies have also shown that the more “old fashioned”, “hard-nosed” leaders, who are less concerned with the manager’s social responsibility, are more likely to have success at the bottom line (Hartmark, 2006), and who for that reason serve the organization and its employees best. *In which “positive” direction modern management has been influenced by project work can, therefore, be an open question.* Is it the approach’s “softer” organizational management or its strict rigidity that provides the decisive incentive for personal commitment and satisfaction?

A striking paradox is the wide gap separating private and public sector scores for the same indicators. The divergent opinions regarding the impact of project work on the leader role are especially intriguing. This is illustrated schematically in Figures 3a and 3b below.

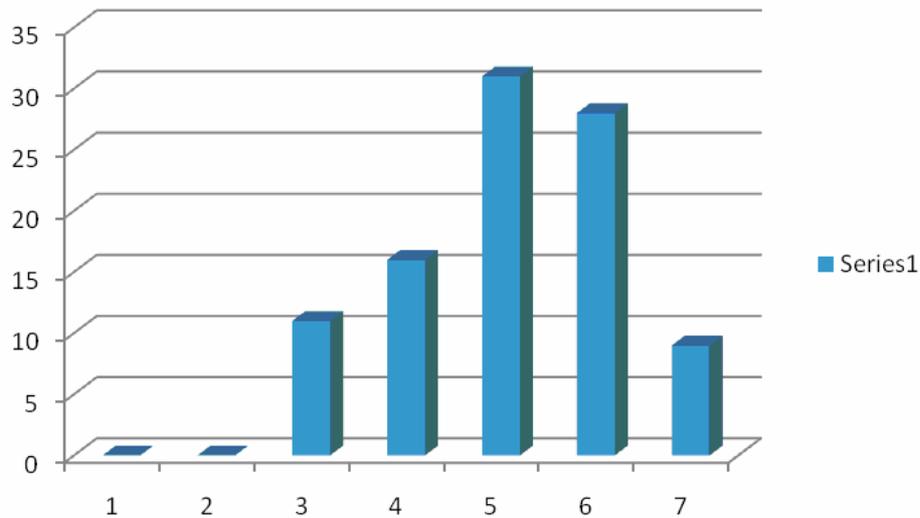


Fig. 3a. Public employees' perception of impact of project work on management in general in public sector organizations

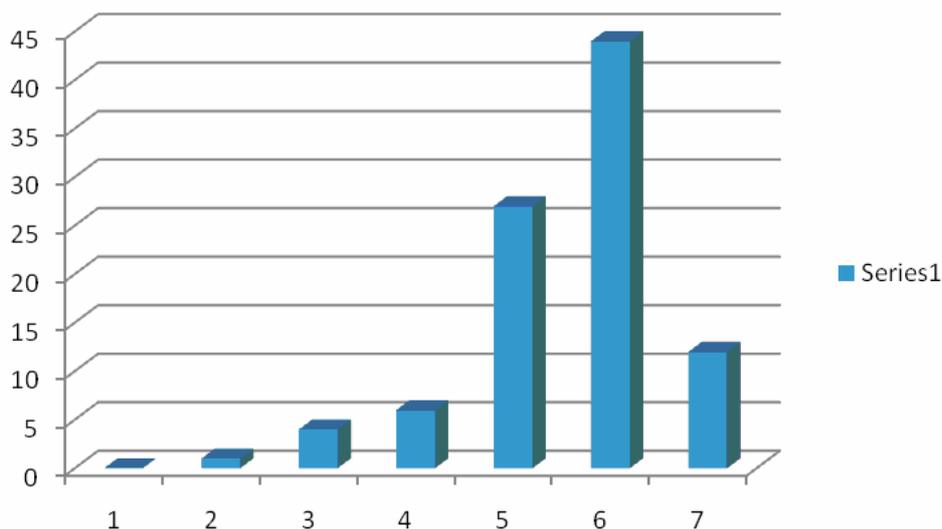


Fig. 3b. Private employees' perception of impact of project work on management in general in private sector organizations

As one sees, the prevailing opinion in the private sector is that the impact of project work on the management role in the area of task performance has been highly positive, achieving a median value of "6".

The prevailing view in the public sector is significantly behind, only granting "some positive impact" and a median value of "5". Almost every fourth public sector employee can find no impact at all. In light of the increasing use of project work in government as a problem solver, the paradoxical nature of the situation can hardly be denied. If project work is used so widely without the type of leadership required by the project concept, dissatisfaction and imbalance between "theory and practice" must be the inevitable result. Government administrations may be unable to live up to the standards of modern project management, such as clearly defined, goal

directed management, delegation of responsibilities and powers, and proximity to colleagues.

3.1.1.2. Economy and customer paradox. Economic profitability and customer relations are clearly of central importance in modern project management. As can be seen, the average score is decidedly positive (5.38). And it is significantly higher for the private sector.

The fact that projects are associated with economic investments and utility values hardly needs to be stated. Projects require initial outlays, but they are recouped later. Any project analysis will, therefore, include projections on whether the utility value will be at least as substantial as the investment cost (Bøhren, 1998). Although the utility value may resist quantification in purely economic terms, it will always be tacitly assumed that projects should "pay". As we see, it is rated by both private and public sector employees as a key concern; it is also a

leading indicator in the execution and result phases. It is also widely recognized that the customer, the client or recipient, has become a key partner in both private and public undertakings. There is not much point in feeling happy with an outcome if the customer remains unconvinced. As all of the recent studies of what is termed “customer barometers” (Olsen, 2002) show, an unhappy customer can be highly problematic for a business or organization, especially if his dissatisfaction persists. Building robust client-organization relations is, therefore, one of the main priorities of modern project management.

But these views also harbor some inescapable paradoxes. The first is that *project work has affected the economic performance of enacted programs more than customer satisfaction*. It is a conundrum not least for the public sector the principle objective of which is to meet the needs of citizens and users even if undertakings are not particularly lucrative economically or commercially speaking. One cause of the imbalance could be the success of NPM in the public sphere, whereby public agencies and institutions see themselves and operate as if they were “private” businesses (hospitals, public transport companies, education institutions) (Klausen, op.cit.), even though they are not. Similarly, the traditional benchmark for project success is economic success. By adopting the benchmark, public administrations are encouraged to run public services on the basis of purely financial accounting principles, even when the utility value is unlikely to be measured in purely monetary terms. This is another reason to ask *whether projects are entirely*

justifiable as a policy mechanism to the degree they are used today.

The second paradox conjures yet another gap between public and private enterprise. *The private sector is perceived to care more about the customer and client*. It would not be strange, however, if the opposite were the case. Governments have a responsibility to meet the needs of the citizens, to make the investments required to fulfill that purpose. It is important in a democracy that the citizen’s desire for “civic consultation” is attended to. So, while a score of >5 means “some positive impact”, that the private sector scores significantly higher is again something of a conundrum.

To conclude, the indicators perceived as most affected by project work are management role, relations between managers and employees, organizations’ economic performance, and customer relations. But the interpretation of these indicators reveals a number of paradoxes. One is that public administrations, which initiated the move to project work to start with, today are considered less positively affected by project work than private organizations. Another paradox finds projects in private organizations to be more attuned to clients and recipients than projects in the government sector. As the governments are the servants of a society, it should be the other way round.

3.2. Indicators for areas where the impact of project work is considered average. Table 2 displays the average impact areas.

Table 2. The average impact areas

7.	Division of powers and responsibility	5,27	5,38	4,89	Personnel development	Preparatory phase
8.	Own organization’s strategic management	5,22	5,26	5,07	Strategy and control	Preparatory phase
9.	Internal strategy processes	5,12	5,22	4,79	Strategy and control	Preparatory phase
10.	Overall economic growth	5,12	5,11	5,14	Societal implications	Result phase
11.	Management of scarce resources	5,07	5,19	4,64	Strategy and control	Preparatory phase
12.	Internal social processes	5,03	5,13	4,68	Personnel management	Preparatory phase

Since the scores are all >5.0, the impact is deemed positive, though, on average, slightly less positive than the areas grouped in Table 1. But there are paradoxes here too.

3.2.1. Responsibility and authority paradox. The fact that the impact on responsibility and authority gains a positive rating strengthens the potential of project work. Independent responsibility in areas in which the employee is skilled tends to be associated with a positive response. The indicator was similarly defined in this study as “division of internal responsibility and authority in a manner in which the individual employee both understands and accepts his

and others’ responsibility”. Here, however, it is important to note the significant differences in perceptions between the private and public sectors. Clearly, *project work in the public sector has not given employees the same opportunity to take on responsibility, if so desired, as the private sector*. Public sector employees have particularly less independence in the preparatory stage than their counterparts in the private sector. This is true not least when it comes to work on strategy and strategy building during the preparatory stage. The indicator “internal strategy processes” is defined here as “to involve the organization’s members in the work of

aligning internal projects with the organization's strategy". It would be more correct, though, to interpret this as a significantly wider gap between the management and employee levels in the public sector than in the private sector, notwithstanding democracy's attempts, not least through NPM, to narrow the gap. Nor the fact that good project management requires in principle proximity between the project's decision level and operative levels.

3.2.2. Resources management and economic paradox. For the majority, project work means an opportunity to control and manage scarce resource better. The indicator is consequently defined as "utilizing relevant policy instruments in the (preparatory) work so that limited resources can be managed better in the daily operational work". As it is shown, this indicator was awarded only "some positive impact" (5.07). It is of significance here, public undertakings score very badly (4.64), meaning by and large "no particular impact". *It is a paradox indeed that the project is so ineffective in what originally was a key administrative area.*

And another paradox is that project work only marginally contributes to the economy (5.12). On this particular point private and public employees are united. There are several possible reasons for this paradox. For instance, strategy and performance are said to be insufficiently aligned. Then there is the difficulty of embedding projects strategically because of their unique individuality, at least over the longer term in which an economy needs to be seen. In their ad-hoc form, projects can be conceived as more or less random games of chance, where success and fiasco are more unpredictable. If this is the case, there is a good reason to ask *whether the modern project is a good government tool; after all,*

governments have a responsibility not to gamble with public funds.

3.2.3. Collaboration paradox. A third notable paradox is reflected by the relatively low score for "impact on internal social processes", particularly in government undertakings. This indicator was defined as "internal social cooperation among the organization's members (team work) so that members support, encourage and help one another". In the main, project work is conceived as team work, and insofar as personal activity and growth, management role and employee satisfaction all receive high ratings, one would assume it had something to do with good intra-team collaboration. But clearly this is not necessarily the case. The scores could just as easily indicate a conception of project work as individual work, aimed primarily at consolidating one's own position, training and development. In that case, *either team work and team training are wrongly identified as decisive for the success of businesses or government agencies, or the value of good team work is underestimated and too little attention is paid to its value creating propensity.*

The paradox, running like a thread through all this, is that the indicators with only moderate scores tend to be associated with successful project work, such as strategic embeddedness, contributions to healthy economic growth, clear, practical division of responsibility and powers, good social processes, and good management of scarce resources.

3.3. Indicators for areas which are not particularly affected by project work. Compared to the relatively positive impact noted above, it is worth taking a look at the areas where the impact was considered to be low, sometimes very low. The scores are shown in Table 3 below.

Table 3. The scores

13.	Treatment of employees individually	4,98	5,04	4,78	Personnel management	Preparatory phase
14.	Management of scarce resources	4,95	5,01	4,73	Strategy and control	Preparatory phase
15.	Economic reward systems	4,71	4,84	4,27	Employee mentality	Result phase
16.	Society overall	4,60	4,60	4,60	Societal implications	Result phase

3.3.1. Social impact paradox. As noted above, there is limited support for contending that project work has affected economic growth to any extent. But where project work has had least reported impact is on social processes in society. This is the received opinion irrespective of sector. Generally speaking, society and social processes have not been signally affected by project work. One can interpret this in several ways. Modern culture's social processes may already be so well catered to that project work has little much to offer in addition. Or, conversely, project work remains a technical and economic mi-

cro-level tool, lacking the ability to change society at the macro level. Project work as a discipline is unlike most others because it draws on wide range of disciplines and they need careful alignment. This requires transaction skills, which in this case is the ability to import, adapt and employ elements from other disciplines in project work. It is necessary, particularly for the interpersonal aspect, to coordinate elements of sociology, psychology, organization studies, number theory, economics and culture. The low score could indicate lack of success here, in the general view.

Compared to the positive scores above on human activity and growth and employee satisfaction, this is a paradox. *Project work may, therefore, still be a purely internal matter for firms and organizations unable to create external ripple effects through society.*

3.3.2. *Reward paradox.* Another paradox is the low score for economic reward systems. It would seem as if employee satisfaction occurs, as the indicators above demonstrate, despite poor remuneration for important contributions. In that case, it would be a danger signal, because if employees are dissatisfied with an inadequate reward system or are unhappy with the lack of response to their work, the positive impact of project work in the various areas could unravel. It would make it harder to persuade people who have worked on major projects to take on new ones. It may, therefore, be necessary *to investigate the form compensation should take in recognition of a demanding project well done; a bonus system perhaps, or other forms of acknowledgement and opportunities for the people who were involved and did a good job.*

3.3.3. *Control paradox.* A final, important paradox is the low score, particularly for public administration, for management and control of scarce resources. Given the original purpose of project work – to make better use of scarce resources such as time and money – it is surprising to see the low rates for resource control. Clearly, the approach is perceived to have affected collaboration and management more than resource control and management. Again, there are several possible explanations. For instance, rich countries as the Nordics have such an abundance of resources, one may not feel the need to worry if some of them go to waste. Or maybe project work is today more of an internal social and organizational domain than a management tool. If this is the case, and is what society wants, *project activity in our modern culture must acquire a completely new perspective, rather than the current one into which so many resources have been piled and whose development has been based on extremely outdated, quantitative models.*

4. Summing up

Project work has become one of most influential factors in modern societies. In utterly central areas of our working life and relations with one another, major benefits are seen to flow from projects that serve to enhance the common good. At the same time, this power is both variable and paradoxical. Some areas are positively affected to a high degree, according to reports. How managers lead, how we work and whether we enjoy our work are three such areas. Economic collaboration between suppliers

and users has brought major benefits and mutual understanding. But changes in other areas have been much less noticeable. While the economy as an indicator scores well in terms of corporate economics, the control of scarce resources achieves a low score. And the impact on society's economic and social status is also worryingly low. Project work remains, clearly, an internal corporate and organizational tool, and many are the internal processes it has improved. But it has not succeeded in doing so in equal measures across society as a whole, not by a long chalk. There would also seem to be widespread dissatisfaction with the personal reward systems that come with project work, which should give cause for thought.

Given the wide use of project work in the public sector, the stark contrast between the significantly lower scores awarded by public sector employees to virtually every indicator of good project performance and those awarded by private sector employees is perplexing. It is a paradox given that government measures are precisely designed to benefit society through the skilled use of project work. If the tool is used improperly, the result in all likelihood will be under par as well.

Discussion, recommendations and further research

In light of the wide use of project work in our culture and given the points made above, a discussion of the following recommends itself.

The implications of the perceptions set out above for practical project management today.

The implications of the perceptions set out above for project management research.

The implications of the perceptions set out above for current training in project management and project work.

Conclusions of relevance to practical project management.

a) The project should retain its appeal as an effective problem-solving tool. The project is well suited to the modern individual, but in that sense it also needs to be cared for. High status should accompany project management positions, with wider powers and independent responsibility for human resources management. The position of project manager must become a senior position and offer as many chances for promotion and advancement as employment on the line. Organizationally, a vertical management structure with few hierarchical levels would give project managers the necessary freedom to take decisions quickly when necessary, and to concentrate on customer relations without being micro-managed by senior levels at some distance from the shop floor and with little practical

understanding. Public undertakings which for formal reasons cannot be adapted to general project requirements should not be shoehorned into this form of work when they don't fit operationally. Numerous public tasks organized today as "projects", not least for budgetary and quasi-psychological reasons, should probably be redefined as "tasks", "studies" or other appropriate bureaucratic methodologies should be chosen instead.

b) The reward systems currently in use need to be overhauled root and branch. When economic reward systems ostensibly in place to compensate the additional effort projects usually call for are judged to be non-existent, either new compensation mechanisms should be introduced or other incentives considered. This is particularly relevant for public administrations.

c) Projects must be embedded in society more firmly. Worryingly enough, projects are not seen as benefiting society, the economy or common good. There may be several reasons for this. One could be the relative dearth of projects with a clear social utility value. Another could be the method of evaluating end products in terms of specifications rather than retrospectively investigating the wider consequences. Many projects today, as a result, meet the technical and budgetary standards, but have longer term repercussions for society that are negative. They also sub-optimize particular areas. Since organizations can hardly survive without the legitimacy of society at large, factors like reputation management should be included in the early strategic planning of the project.

Conclusions of importance to project management research. a) More research should be undertaken in the area of strategic project development. It is surprising that strategy development and resource management are held to be largely unaffected by project work. Project management research continues to be dominated by operation analysts and quantitative method researchers whose interests are mainly theoretical, laboratory centered process performance and outcomes at the micro level. Strategic resource utilization is far more of a qualitative than a quantitative science, and how decision processes at senior levels proceed should attract much more attention than is the case today.

b) More studies should be directed towards the result phase. Inasmuch as projects are generally viewed to have a more profound effect on the preparation of tasks rather than result generation, it echoes the tendency of research to be interested in describing, identifying and estimating problems rather than studying and suggesting workable solutions. The interrelations between project choice and sub-

sequent project success should similarly be a leading research theme.

c) Studies of everyday projects should be encouraged. The project management literature and current project management research are dominated by the large-scale project. But the more we use projects, the more ordinary and "everyday" it will become to work on and with projects. These projects need fewer formalities to succeed. At the same time, they are increasingly important because small and medium-sized "everyday" projects occupy an ever more central place in modern cultures. It is necessary to determine which type of problem solving mechanism and decision procedure are best suited to this type of project, which the most appropriate implementation systems and reporting standards are, and what incentivises people to work on small and medium sized projects or discourages them.

Conclusions of importance to project management training and teaching. a) Training in practical project management is in need of upgrading. As for all subjects which promote social and civic engagement, it will be important to build competence, knowledge, and mastery of the subject. Over time, project work and management have become a discipline in their own right, and training in project management is now a vital part of the portfolio of most educational facilities. But this has also led to the subject's "academizing", and an increasing theoretical bias. For project managers, however, theory will usually be secondary to sensible, workable schemes for making progress in everyday project management. The scientific approach has a tendency to focus on cold logic and testable hypotheses. But when time is at a premium, it is more important to do a job well than assess what one might have learned in the process. In the real world, the practical answer, the ability to handle large quantities of information, and sense and understand human reactions are pre-eminent qualities. The classroom laboratory can only encourage such awareness and propensities to a limited extent. Training in practical project management today must apply modern action teaching principles to a completely new degree, make room for irrationality and teach how students can cope with unscheduled, random events.

b) The development of the individual rather than the team should be given wider attention. It has become something of a mantra to say project work equals team work. Team work is important, but team work depends on the contributions of the individual members. Modern societies are far more individualistic than team centered. Studies reveal the desire of the younger Y generation for close individual supervision, clear individual leadership, and individu-

alized competence building. In addition, gender, age and ethnic differences imply different preferences. Traditional classroom training is not equipped to engage at this level. Individual field training and sponsoring schemes would be sensible alternatives.

c) Training in transaction competence deserves higher priority. Transaction competence means the ability to translate concepts. In project management terms it means communicating knowledge about how to adopt and adapt successful mechanisms from different areas to a particular project environment without simplifying or specifying in such detail that the success factors become too diffuse. This requires an approach to education which focuses on training how to pick and transfer the desired elements, and do so in a way that is comprehensible, fits for purpose and produces the desired effect. This is a real challenge today, as general theoretical utility value and practical utility value are considered to be of equal merit. Current project management training must first and foremost aim at educating reflective practitioners in greater numbers.

Further research. There seems to be at least two interesting areas for further research. The first one is to expand the current database in order to make

more detailed analyses of the impact of the project approach on gender, age, type of business, type of discipline, and size of projects.

The other equally interesting line is to explore cultural differences. In this research only typical north-European societies are explored. Whether the project approach is influencing differently in other European regions is one approach. Another is to compare European and American influence, the USA after all being the society that "invented" the project concept and has learned to use it for a longer time than in Europe. A third area is Asia, in particular South-East Asia, China, Japan, and South Korea, business tigers with a considerable growth both in business, research and education. To which extent has the project approach served as an engine for their fast development, or perhaps a lesser focus on the project way has promoted their prosperity?

The model used for this research may well be improved and expanded in order to cater both for deeper analyses, and to disclose important cultural differences in the use and advantages of the project way of problem solving.

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