

The Importance of Project Post-Implementation Reviews

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Abstract—Success means different things for different people. For us, project managers, it becomes even harder to actually find a definition. Many factors have to be included in the evaluation. Moreover, literature is not very helpful, lacking consensus and neutrality. *Post-implementation reviews (PIR)* can be an efficient tool in evaluating how things worked on a certain project. Despite the visible progress, PIR is not a very detailed subject yet and there is not common understanding in this matter. This may be the reason that some organizations include it in the projects' lifecycle and some do not.

Through this paper, we point out the reasons why all project managers should pay proper attention to this important step and to the elements which can be assessed, beside the already famous triple constraints: cost, budget and time.

It is essential to take notice that PIR is not a checklist. It brings the edge in eliminating subjectivity and judging projects based on actual proof. Based on our experience, our success indicator model, presented in this paper, contributes to the success of the project! In the same time, it increases trust among customers who will perceive success more objectively.

Keywords—Project, post-implementation, success, model.

I. POST-IMPLEMENTATION REVIEWS CAN REVEAL SOME TOUGH TRUTHS – WHICH IS WHY THEY'RE SO NECESSARY

THE need for post-implementation project reviews seems rudimentary. Every outcome, be it a product, process or service, should be compared with the initial concept. We analyze the deliverables of a project or program and issue a conclusion—mainly to see if it was a success or a failure. Unfortunately, we often need to justify post-implementation reviews (PIR) to stakeholders.

We will build a case to show that PIR (Post-Implementation Review) is the best tool (in many cases) to actually rule/judge a project success (beyond its results). Some of the reasons to support reviews might seem obvious, but project professionals under pressure to watch the bottom line need all the ammunition they can find.

II. 9 MAIN REASONS WHY WE SHOULD DO POST-IMPLEMENTATION REVIEW

A. Final Deliverables versus Initial Baselines

Several months ago, our company, a big telecom provider, launched a new online self-care system. Because of its complexity, the project had different implementation phases, each with its own specific deliverables. At the end of every phase, we conducted a brief evaluation of the results.

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We discovered that while working under pressure (which we all do), the project team approved change requests that altered the original baselines — even it was in a good way.

The result was a very powerful system that contained many new features not included in the initial scope. The post-implementation review created the perfect opportunity to analyze the difference between the original scope and the end result.

B. The Project Manager's Performance

If there is a discrepancy between what was expected and what was actually produced, it is probably closely related to the project manager's capabilities.

Many companies — including ours — realize that project management brings many benefits, such as increased efficiency, improved performance and better monitoring of the project portfolio. Yet in many cases, product managers or line managers get appointed as project managers, sometimes without proper training and preparation. [10]

There is no need to point fingers or take drastic action. However, evaluating the performance of those in the project manager role can reveal where there's room for improvement.

C. Team Performance

Even if it sounds a bit harsh, an evaluation of the team must be done for educational and improvement purposes. Nobody has to get fired, but maybe you need better organization or additional resources. [6]

It is found the "customer," especially for internal projects, often settles for less. Sometimes the marketing department does not want to upset the IT staff, or vice versa. In such cases, we, as project managers, risk being "the bad guys", but we still have to measure performance.

D. Budget and Schedule

Top management is still primarily focused on time and money— understandable, given the economic environment. [7]

A project may deliver what is expected, but if it costs double the budgeted amount, it might not be viewed as a success, even if the expenditures were justified. A post-implementation review establishes the facts in an organized and objective manner.

E. Project Management Methodology

For example, our company requires several project management processes, including project assignment steps, phase gates, and specific documents and approval schemes.

A review lets us see if that methodology is working. For

example, we want to see if the current project management process is suitable for small projects. Or if we should have a specific flow for so-called “fast track” projects.

It is also a good time to look at templates. The instruments used in project and program management also need to be reconsidered and tweaked.

F. The Initial Idea

In the project planning stage, top management typically analyzes the original concept. We need to take another look at it at the end of the project to see how it fits into the big picture. We need to see if it offered a strategic advantage for the company and if it delivered a clear differentiator?

G. Strategic Alignment

We have to look at how the project or program impacted the organization’s objectives. Sometimes the bigger projects and programs need to make a U-turn when it comes to strategy. [9] For example, based on a request from the telesales department, our company recently initiated a project to create an automated customer-profiling system. In real time and with little information, an agent can now build a tailored offer for the customer and, if approved, propagate it throughout the IT systems. After a post-implementation review, top management realized this application would increase sales efficiency and offer a better customer experience if it was used at all customer contact points, including dealers.

Evaluating the strategic impact triggered a veritable revolution in the sales process at our company, as well as a slew of projects to expand the service.

H. Ecological Impact

There are many situations in which the initial assumptions about sustainability are not entirely accurate. The review process is a great opportunity to take a long, hard look how our projects and programs affect the environment. [5]

I. The Post-Implementation Review Itself

All aspects of the project must be analyzed and updated — and this is no exception. Having all these in mind, we suggest moving to a practical example to understand how these post-implementation reviews are performed within our multinational company.

III. POST-IMPLEMENTATION REVIEWS REPRESENT AN IMPORTANT STEP IN DEVELOPING CROSS-FUNCTIONAL PROJECTS, SO WE DO APPLY THEM

If our organization has implemented its own Project Delivery Process [1] inspired by the most well-known project management standards and adapted to the organizational structure. Project Delivery Process keeps track of projects during their entire lifecycle. Project’s lifecycle is defined here as a sum of all phases from Idea to Post Implementation. So, in our case, post-implementation review is considered a step of the project; therefore the project is not closed until having this phase finalized.

There are two types of post-implementation reviews run in the company:

A. Financial PIR

It is targeting to compare the initial assumptions with the real facts/ figures; the purpose is to gather learning for future similar products or services. It is split in two steps:

- 1) First step is dedicated to a high level analysis, performed 3 months after project launch. Its main purpose is to raise a flag (before the next step) if there are big differences between what was assumed initially and the real life;
- 2) The second step is associated to a detailed analysis performed 9 months after launch. It contains a comparison between the figures approved in Business Case and the real registered ones.

B. Project PIR

It is aiming to enrich the organizational data-base. This is the type of PIR on which we will concentrate in the next pages. We will present and detail the Financial PIR in our future articles.

Project PIR is designed to collect and make use of the knowledge learned throughout a project in order to optimize the delivery and outputs of future projects. It is run in maximum 1 month after the project was finalized. [1]

The post launch analysis includes, beside other information, a success indicator model to be completed. There are several areas which need to be covered by a post launch analysis. Here are the ones that should not be missed:

- 1) Scope Management – project statement both initial and final, change requests (CR) gathered during the project and the reasons for variance;
- 2) Time management – project real duration compared with the planned one, detailed for each phase of the lifecycle;
- 3) Cost management – the estimates at each milestone and the reasons for those not compliant with the process approved in the organization;
- 4) Risk management – main risks, how they were addressed, prioritized and treated;
- 5) Quality management – capture if business acceptance criteria were met. If not, should explain what are the reasons and which is the perception of end users after launch;
- 6) Go to Market information – emphasize the Go to Market (commercial launch) activities correlated with the plan and, if case, needs to be mentioned what should have been done better in order to accomplish the initial project plan;
- 7) Lessons learned – refer to what was done well during the project and what was poor covered (project or product). Can cover project methodology, but also relation between methodology and functionalities;
- 8) Overall status – establish a final color for the project; score the overall project using an Excel model based on several attributes related to scope management, time management etc., including the evaluation of the project team members work, cooperation and involvement.

Main focus will be, in the end, on the overall status of the project as it is helping us in building the success indicator model. This is not a new model for measuring success in project management but it was adjusted according to the organizational processes, policies, and procedures.

The project success indicator model was first met in Parviz Management Office; A comprehensive Look at Function and Rad's and Ginger Levin's book, "The Advanced Project Implementation", published in 2002. [2]

				Scope variance (If No 80p, if yes 40p)	
		Scope (max 80)	0	Justified Variances(Yes 25p, No 0p)	
				CRs (if No 10p, if Yes 0p)	
				Results according to Business acceptance criteria(Yes 70p, No 40p)	
		Quality (max 80)	0	Justified Variances(Yes 10p, No 0p)	
		Things related attributes (max 320)	0	User feedback positive(Yes 10p, No -10p)	
				Schedule variance (If No 80p, Yes: <2wks 60p, <1mnth 40p, <2mnth 20p, else	
		Schedule (max 80)	0	Justified Variance(Yes 15p, No 0p)	
				Cost variance (If No 80p, Yes: <+5% 60p, <15% 40p, else 20p)	
Project Succes Indicator (max 400)	0	Cost (max 80)	0	Justified Variance(Yes 15p, No 0p)	
				Productivity (max 10)	
		Team (max 30)	0	Cooperation (max 10)	
				Absenteism (max 10)	
		People related attributes (max 80)	0		
		Communication (max 30)	0	Planification (max 10)	
				Efficacy (max 20)	
		Vendor (max 20)	0	Compliance (max 10)	
				Productivity (max 10)	

Fig. 1 Project success indicator model

The model is work breakdown structure-like and it is based on objective as well as on subjective factors. For more clarity in what you are going to see in next pages we provide the model in Fig. 1 [3]. This success model used for PIR is based on a more complex one. The template had initially three versions and more attributes than the one presented in Fig. 1. But, as long as we've chosen to make an analysis within a certain organization, we will detail the model used in this organization. [8]

The attributes analyzed within the company are structured in two categories:

- 1) Attributes related to people which include subjective factors and
- 2) Attributes related to things which contain only objective factors.

The split comes from the fact that the indicators included in these main groups can be measured more or less based on real facts [2]. The measurable indicators can be easily demonstrated using reports extracted from the project management tool which contain all data registered for a certain project during its lifecycle.

Based on the score obtained using this model a color which indicates the level of success is associated with the project. The colors used for defining success are the ones from the traffic light: red, yellow, or green:

- 1) Green means that the project went well for both areas:

people and things;

- 2) Yellow means that were some issues during project's lifecycle but these can be lessons learned for others;
- 3) Red is given in rare cases especially for projects that were stopped due to particular reasons, or projects that had major changes in scope or timeline etc.

Making a parallel with the so called Chaos report from Standish Group International¹ [4] we can translate the color code like this:

- 1) Red stands for unsuccessful projects – those that failed in one way or another;
- 2) Yellow stands for challenging projects – those that had some variations on one of the "magical" dimensions of the famous triangle: budget, time or scope;
- 3) Green stands for successful projects – those that were delivered without significant deviations from the initial plan.

Besides the overall rating for the project post-implementation reviews reveal other useful information like:

- 1) what are the things we should pay attention in certain phases of the projects;
- 2) how to communicate inside the project team;

¹ Standish Group International is a market research and advisory firm which first run Chaos Report in 1995. This is considered to be the landmark study of IT project failure. The Chaos Report defines a project as successful based on how well it did with respect to its original estimates of cost, time, and scope.

3) who are the appropriate roles to have in the project team depending on the specificity of the project etc.

These points form, actually, a valuable outcome of PIR: lessons learned. These are gathered in an organizational historical database which is proving to be very useful for junior project managers or when new projects are started. PMO department is responsible to keep updated this data-base and they are also focused on organizing it in such a manner in order to be easy to read (e.g.: ordered by project type).

IV. MOTIVATION FOR PIR LOOKS RATHER CLEAR. STILL, PIR MIGHT PROVE A TOUGH NUT WHEN IT COMES TO PRACTICAL SITUATIONS

The third part of our presentation is based on practice. We will take some examples from PIR conducted within the organization and draw some conclusions. The charts and the figures we will provide in the following pages take into account 12 big cross-functional projects implemented in one

financial year and covering different areas. These projects with scoring for dedicated attributes are mentioned in Fig. 2, where we present also the final color of the project taking into account the total score obtained. The row which refers to the maximum score is related to the total number of points that can be obtained by each attribute independently.

Reviewing Fig. 2, we can see that the most successful project is coming from Regulatory area. Taking into consideration that we speak about only one project for this segment, the conclusion might not be relevant. This is the reason why we will keep in the charts details about Regulatory project, but we will not consider it in our further analysis. Therefore, scanning each project area separately, the most successful project is coming from New Product area while the lowest score is obtained by one in Operational Efficiency category. In fact, Operational Efficiency category is the one that has the lowest score overall, as seen in Fig. 3.

Project Name	Area	Things Related Attributes (1)				People Related Attributes (2)			Colour	Total 1	Total 2	Grand total
		Scope	Quality	Schedule	Cost	Team	Communication	Vendor				
Project A	New product	75	70	80	80	30	30	20	Green	305	80	385
Project B	New product	65	40	80	80	25	19	20	Yellow	265	64	329
Project C	New product	80	70	80	80	28	20	20	Green	310	68	378
Project D	New product	80	80	80	80	17	11	16	Green	320	44	364
Project F	New product	80	70	80	80	30	20	20	Green	310	70	380
Project H	New product	80	80	80	80	30	26	20	Green	320	76	396
Project I	Operational Efficiency	80	40	40	60	30	20	20	Yellow	220	70	290
Project J	Operational Efficiency	75	80	80	80	29	30	20	Green	315	79	394
Project K	Operational Efficiency	80	80	80	80	29	27	17	Green	320	73	393
Project E	Regulatory	80	80	80	80	30	20	20	Green	320	70	390
Project G	Customer Experience	75	80	55	80	23	20	20	Green	290	63	353
Project L	Customer Experience	65	80	80	80	28	30	20	Green	305	78	383
Average	N/A	76.25	70.83	74.58	78.33	27.42	22.75	19.42	N/A	300.00	69.58	369.58
Total	N/A	915	850	895	940	329	273	233	N/A	3600	835	4435
Maximum score	N/A	80	80	80	80	30	30	20	N/A	320	80	400

Fig. 2 Projects with post implementation review completed

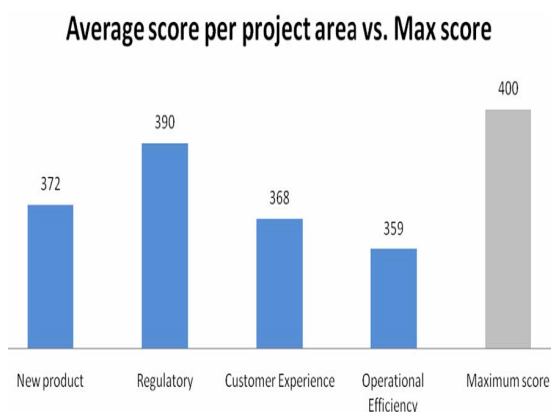


Fig. 3 Average score per project area vs. maximum score

Organizational database for lessons learned reveals its first secrets. The most successful project registered a low score for communication due to different understanding of business terms/ definitions among team. In this case, the conclusion is simple and pretty straightforward: from the very beginning, we have to clearly detail the terms and terminology that will be used during the project phases.

Considering Fig. 4, we can conclude that people related attributes contributed more to the total score for the Operational efficiency projects category. This means that the project would have been considered red if the Team, Vendor or Communication did not work well. Red color marks an unsuccessful project and means that the scores obtained are beyond the accepted level for a successful project.

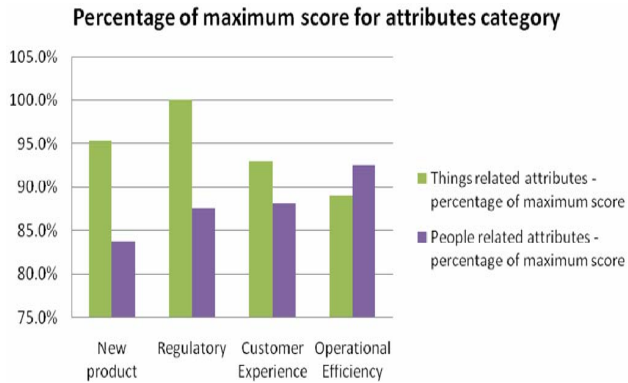


Fig. 4 Contribution of the two attributes' categories to the maximum score

Fig. 4 shows that even though there are more attributes allocated in the first category, people-related (subjective) attributes are very important and have a strong contribution to the final score. We appreciate that a good communication inside project team and a dedicated team have a big impact on the objective attributes but the chart reveals that there is not a specific link between the two categories.

Fig. 4 shows that things related attributes contribute more than people related attributes to the final score. Operational efficiency is the only projects' category that has an important contribution of people related attributes to the final score. In other words, the objective criteria are the ones that count most and the ones that obtain maximum or close to maximum number of points. Going further and considering the twelve projects as a single one, we can see which of the success indicators need to be improved and which of them are the most reliable for project managers in our company (Fig. 5).

As a complementary analysis, all seven attributes for each project's area compared with the maximum score associated to each attribute are presented in Fig. 5. From Fig. 4, we will discover which one out of the 4 areas of projects had the most significant communication problems.

Even if we speak only about one project, the Regulatory area has the lowest score for communication. We concluded that Communication attribute refers to Communication plan and its efficiency. The lessons learned showed that this low mark was given for the external communication. This means it was a negative impact for the external customer and points out that the clients are a major stakeholder in the projects.

As a result of the analysis presented, we feel that we are able to choose a few rules for each category of projects to describe the major thing that deserves to be classified as a lesson learned. These rules would be:

- 1) New product – Plan the project management plan effectively and involve all stakeholders from the very beginning;
- 2) Operational efficiency – Plan testing phase carefully;
- 3) Customer experience – Plan communication and keep the same project team throughout the project lifecycle;

- 4) Regulatory – Plan communication taking into account all stakeholders.

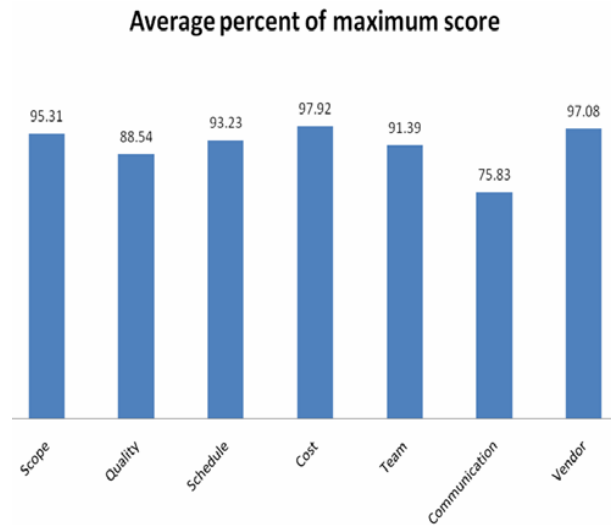


Fig. 5 Average percentage out of maximum score for the attributes analyzed for a project post implementation review

Hence, each project category teaches us what to do better in our next projects and keep us informed regarding the weaknesses in our organization (from project management point of view). In fact, it warns us where to pay more attention and what to monitor closely in future projects.

V. POST IMPLEMENTATION REVIEWS ARE NOT THE ONLY ANSWER TO ALL POSSIBLE ISSUES, EVEN IF THEY HELP A LOT!

Consequently, having in mind the big picture – including the things we found out from PIR analysis - we should say that PIR can reveal some tough truths – which is why they're so necessary.

As we stated before, this project evaluation (PIR) can help the organization in many ways. We listed some of them but each one of us can find more than these: It contributes to the project delivery process implemented in the company – for example, it can show which is the best way to go and what needs to be changed;

- A. *It contributes to the project manager's development – enriches the organization's historical database, sketches a direction, etc.;*
- B. *It leads to a stronger sense of accountability across project team members*

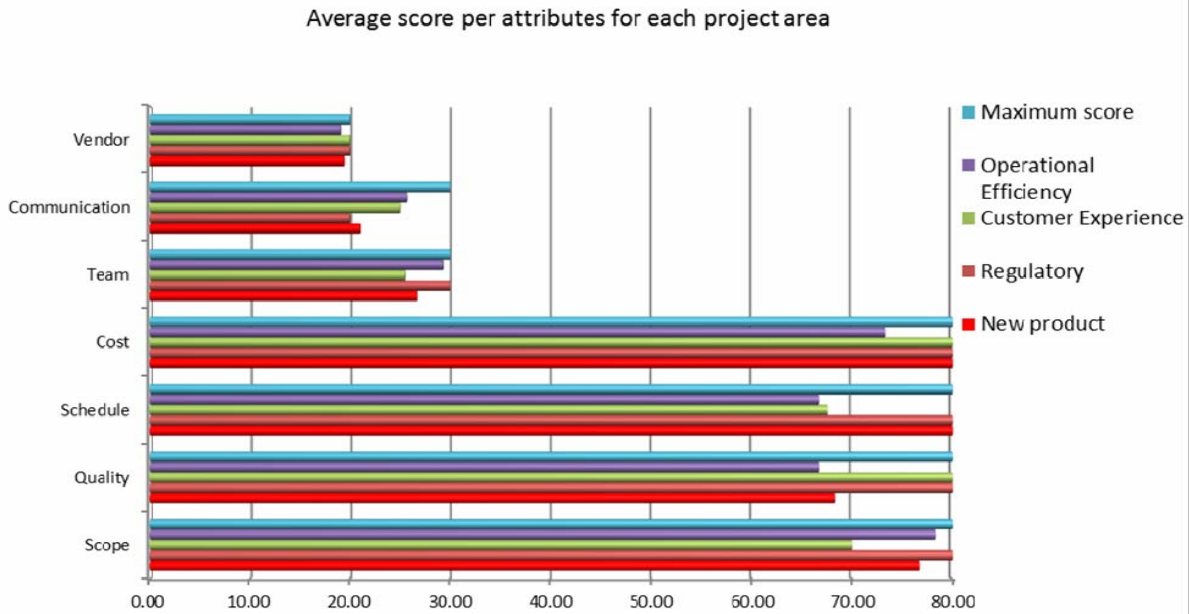


Fig. 6 Average score per attributes for each project area vs. maximum score

Percentage of maximum score for each succes indicator

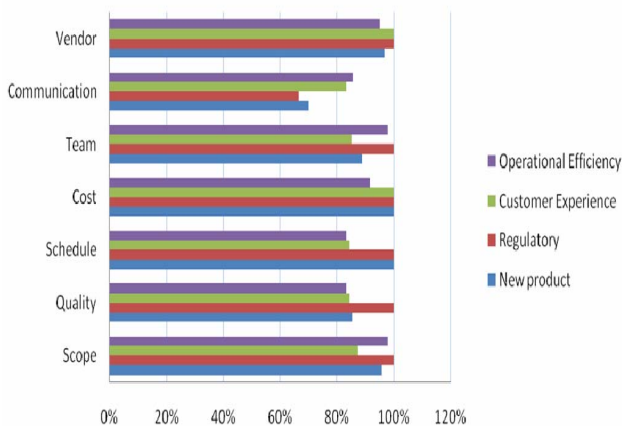


Fig. 7 Percentage of total score for each success indicator

In our opinion, this final evaluation of the project also empowers the project manager, especially if we refer to any other type of organization but strong matrix or project oriented ones. Even if the team members are not individually evaluated, they know that, when the project is finalized, the team overall will have a score. Thus, they must be totally involved in the project and contribute with their work, their feedback and their ideas.

For us it is clear: project post-implementation reviews represent a necessary step, a helpful one during project’s lifecycle and only after this is completed we can really say that the project is closed.

Every organization needs a fully functional post-implementation review to be sure its project management methodology and processes are maximizing results. But not so

many make the effort to analyze all of these points — especially when some might reveal ugly truths about what needs to be changed. And, moreover, when the organization might not be ready.

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