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# A Flexible Hybrid Method for IT Project Management

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## ABSTRACT

Project management (PM) landscaping is continually changing in the IT industry. Working with the small teams and often with the limited budgets, while facing frequent changes in the business requirements, project managers are under continuous pressure to deliver fast turnarounds. Following the demands of the IT project management, leaders in this industry are optimizing and adopting different and new more effective styles and strategies. This paper proposes a new hybrid way of managing IT projects, flexibly combining the traditional and the Agile method. Also, it investigates what is the necessary organizational transition in an IT company, required before converting from the traditional to the proposed new hybrid method.

**Keywords:** *Agile method, Traditional method, Scrum method, Organizational transition.*

## 1. INTRODUCTION

Since IT professionals started to change the way they are managing the projects in their own industry, managing methods are constantly changing and improving. The leaders in the Information Technology industry were forced to invent and offer different and more powerful ways in IT project management. The answer to these demands is Agile project management (APM) [1]. In the beginning of 21st century, representatives from Extreme Programming, SCRUM, DSDM, Adaptive Software Development, Crystal, Feature-Driven Development, Pragmatic Programming, and others, compassionated about the demand to the alternative approach in effective project management and delivering better results to the end user. The Agile Manifesto was written by the group of these experts who were big proponents of highly iterative and incremental development methods. It is important to note that the agile project principles include all aspects of the project delivery from business and solution analysis to the quality assurance and testing. Jim High smith, one of the architects of the Agile Manifesto and a recognized expert in the agile approaches, has defined agility in project management by the following statements: "Agility is the ability to both create and respond to change in order to profit in a turbulent business environment." [1].

This paper presents a flexible hybrid between the traditional and the agile method, for IT project management. The proposed hybrid method flexibly combines components from the both methods, in order to manage IP projects more effectively. This hybrid method is successfully applied in the IT Department of the FSQM Financial Services Company on several real-life industrial projects. Also, this paper explains how the IT Department of the FSQM Financial Services Company makes the necessary organizational transition, required before switching from the traditional to the hybrid way in managing IT projects.

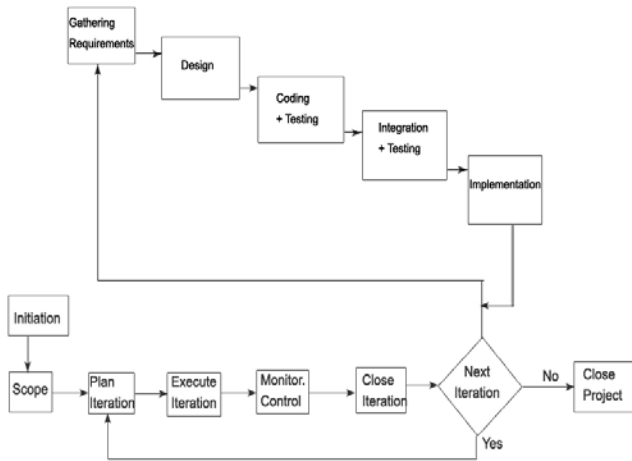
## 2. RELATED WORK

Robert K. Wysocki has written book: "Effective Project Management: Traditional, Adaptive, Extreme" [2]. Wysocki is pointing that focusing on only one method and one project management life cycle in the project management is not the way to succeed. He builds different managing methods and Project Management Life Cycles (PMLC). Different PMLC can appropriately serve different types of the projects. Maintaining effectively the Project Portfolio Management (PPM) means identifying the characteristics of the each project planned for the certain period. Characteristics of the project will determine which project managing method will be optimal. Traditional, Agile, and Extreme can all be effective if applied appropriately. The Agile iterative life cycle, is displayed in the Figure 1, and the PPM process is displayed in the Figure 2 [2].

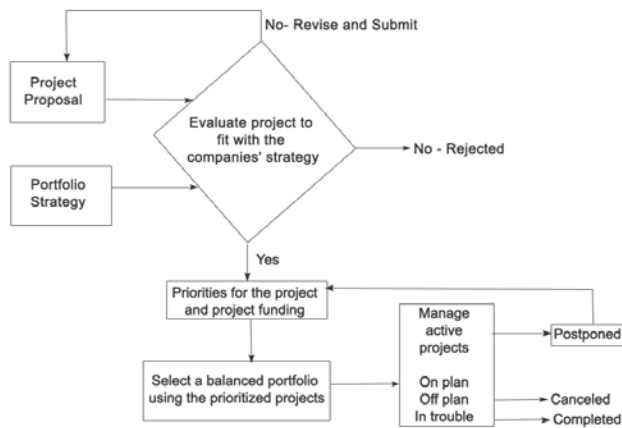
Innovative, experimental, "never done before" kind of projects are the one who benefit the most from the Agile approach. Repetitive, steady, stable, well-documented and production-style projects are in a more advantageous position with the traditional style of management. The PPM is a decision making model for analyzing and managing the projects within one organization, and it is used to optimize the distribution of the current insufficient resources among the proposed projects.

Per Wysocki, the agile project management has iterative project life cycle. The iterative project management life cycle consist of a number of process groups that are repeated sequentially within iteration with a feedback loop after each iteration is completed. This model can have different types of iteration and it can be applied on requirements, functionality, features, design, development, solutions and other components. In the Agile method, prototyping is an iterative process, as shown in Figure 3 [2].

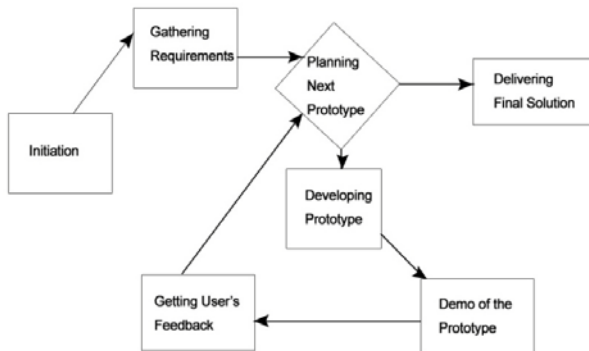
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**Fig. 1:** The life cycle of a project with a detailed iterative process [2]



**Fig. 2:** PPM life cycle [2]



**Fig 3:** Prototyping - iterative process [2]

In the presentation “Agile or the PMBOK? You Can Have Both!” David M. Sides, Vice President of ESI

Consulting Services, is defining the difference between the Traditional (TPM) and the Agile (APM) project management. Regardless of the method that has been used he points out that every projects must “develop a scope of work; estimate the time and the cost of the project; allocate resources; conduct risk assessment.” He is uncovering the tricks and myths managers can have about the APM. While the APM encourages the innovation, creativity, produces opportunity to market product faster, involves customers and users during the project which helps a lot with the changes in the requirements and it embraces the change as a positive thing, brings the leadership between team members, on the other side managers need to be careful because if it’s not handled properly it can suffer from the lack of the documentation, it cannot consist only of the novice team members, it requires experts to be part of the team, it can be very intense when it comes to the collaboration and communication which is required daily, and iterative deadlines in fast-paced environment. The conclusion of his presentation is very important for the companies who are adopting the Agile method: “You Need Both!” meaning most of the organization need both the TPM and the APM, for different kind of projects. It is necessary to understand that the PPM (Project Portfolio Management) is important to optimize the project managing methods [3].

The paper [4], “A hybrid model for IT project with Scrum”, was published in “Service Operations, Logistics, and Informatics (SOLI), 2011 IEEE International Conference” publication. Authors are dealing with a very popular topic in today’s Information Technology industry about adopting the Agile methodology in a workplace. Common issue that most of the companies are struggling with is how to choose the Agile practices and implement them into their IT software project development and management. Most of these organizations already have developed the traditional plan-driven method such as waterfall for the IT project management, deeply embedded in the culture of the company. The Agile method brings a big change in the way how the teams are managed during the projects. The paper [4] is proposing a new approach to the IT project development and management by blending Scrum, an Agile method, into the traditional plan-driven project development and management. It discusses the benefits and also the challenges teams are facing while implementing the Scrum methods in the traditional environment. Despite of the challenges the Agile method is causing while being implemented in different organizations, it is improving the efficiency in the project development and management. The author concludes the paper with prediction, that blending the Agile method into the traditional method forming the hybrid ways of managing the IT projects is just emerging, and this industry will see more of it in the future [4]. The method from the paper [4] uses the terms proposed by Cohn [5] “Waterfall-Up-Front” and “Waterfall-At-End” as part of the traditional waterfall

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method, and then in the middle of the project they are using the Scrum.

Reference [6] is presenting the research from the Forrester Research, Inc. published in 2010, and we will quote some of the results: “The report is based on the survey of 1,298 IT professionals for analyzing the trends in real-world adoption of Agile methods. Surprisingly, 74% of the surveyed teams “mix” agile techniques to other software development methodologies. Furthermore, 35% of the respondents replied that the Agile methods most closely match their development process”.

According to Frye [7]: “APM can benefit from TPM’s clear guidance on project initiation and closure; communications management; project integration management; project cost management as well as Risk management. Whilst TPM can also benefit from APM’s autonomous teams; flexibility and accepting continuous adjustment; APM needs to keep client involved and reduced documentation.” The scope for these two methods is different, so the path to follow mainly depends on the project type and the circumstances [7]. Per Collyer and Warren [8], unlike TPM the goal of the Agile method is to have a small scope and rapid delivery at a high rate.

The Web post [9] published in 2009 - A hybrid Agile / Prototyping model for web designers - discusses the hybrid type of the project management, and the process of transitioning and accepting the useful Agile principles in managing the web design projects. When adopting the Agile principles the author recommended doing that in the projects which would involve new clients rather than current ones, and they also recommend embracing the Agile entirely.

Kathleen Hass originally published the paper “The Blending of Traditional and Agile Project Management” on [www.pmworltdoday.net](http://www.pmworltdoday.net) [10]. It happens often that some of the project managers are discarding the principles of the Agile method because they are not able to adopt all of it’s components and practices. Author gave the example such as: many times customers are not available as much as they supposed to be during the project following the Agile schedule.

### 3. ORGANIZATIONAL CHANGES REQUIRED BEFORE ADOPTING THE HYBRID METHOD

The IT Department of the FSQM Financial Services Company has gone through the substantial organizational transition in the last few years. These organizational changes were required to be implemented before switching to the new hybrid (TPM/APM) method in managing their IT projects.

Before the organizational changes, the IT department had been divided into two main teams. The first team was a System Group, another team was an Applications Group. The other team was further divided into sub teams, each was responsible for a particular application. Team members responsible for particular applications reported directly to the Vice President (VP) of the IT department, as the team members responsible for other had managers who had reported to the VP. Team members who were responsible for the applications performed all services related to the application and it involved servicing as well as the development and implementation related to the application, this is known as a Subject Matter Expert - SME system, and the old teams are presented in the Figure 4.

This organization worked well while the number of applications was small. With the increased number of the applications, the teams have become overloaded with the duties related to the service and application’s development. It has become obvious that it is necessary to make the transition in the organization of the IT department, and create the Service and the Implementation Group that will each be responsible for the application, but with the obligations that were distinguished. The Service Group will be responsible for the maintenance of all applications, and the Implementation Group will be responsible for the development and the implementation of existing and new applications. The structure of the new teams is displayed in the Figure 5. The teams in each group will be divided in sub teams responsible for the specific services and development duties. This way these groups will be organized by role rather than by product.

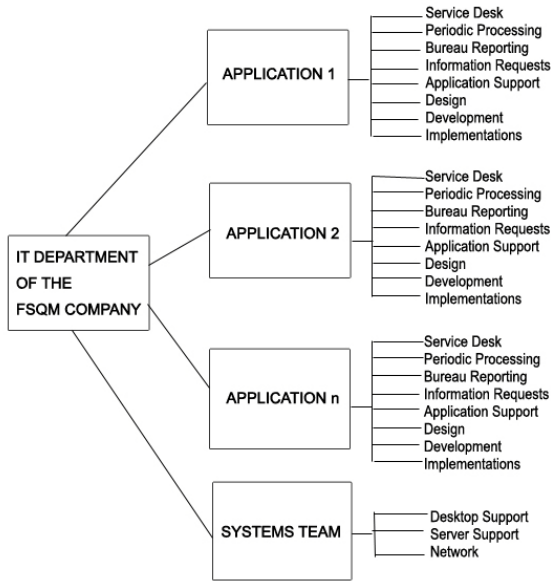
Through the strategic planning the leading management in this department recognized the strong and weak points of the team. They identified the ways how to work to increase the customer satisfaction and the effectiveness of the team. Focuses of the reorganization goals were:

- Become a Services-oriented team
- Meet the committed Deadlines
- Consistent Quality Deliverables
- Transition to new Technologies and Skills
- Enhance communications with the Business

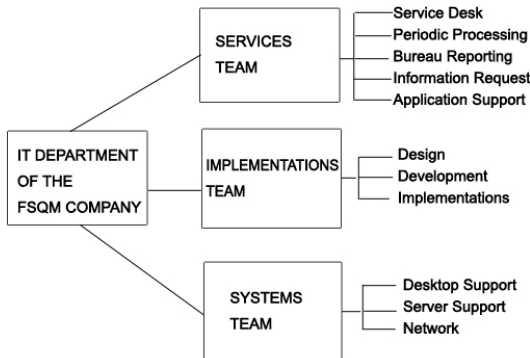
Service operations that are performed regularly or per request of the other departments in the company:

- Service Desk (User and System Support)
- Periodic Processing (Daily / Monthly / Year-End)
- Information Requests (Reports, Extracts)
- Bureau Reporting (States, Regulatory and Associations)

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**Fig 4:** The Old Organization of the IT Department



**Fig 5:** The New Organization of the IT Department

#### Applications:

- Design (Requirements, Systems Design)
- Development (Coding, Configuration)
- Implementations (Testing, Training, Documentation)
- Support (Upgrades, Break-fix, Questions)

#### System support includes:

- Desktop (PC, Phone, Printers, Email, Office, etc.)
- Server (including Storage)
- Network (Internet, Communications, LAN/WAN)

When the services were identified, the management then identified positions needed to provide these services: Service Desk; Periodic Processing; Bureau Reporting; Application Support; Information Requests; Design;

Development; Implementations; Desktop Support; Server Support; Network.

Three teams were formed to perform these services. Also managers who were leading these teams were identified:

- **SERVICES TEAM** which will be responsible for: Service Desk, Periodic Processing, Bureau Reporting, Information Requests, Application Support
- **IMPLEMENTATIONS TEAM** which will be responsible for: Design, Development, Implementations
- **SYSTEMS TEAM** which will be responsible for: Desktop Support, Server Support, Network

Manager in the IT department has a role to manage processes and to manage people. In managing processes the manager needs to: oversee the definition and execution of the steps needed to provide the services they are responsible for, and to monitor the results, resolve interruptions / issues, and report status related to those services. When manages people the manager needs to: determine the skills, quantity, and scheduling for the people needed to deliver the services, and to conduct traditional “staff management” activities.

The VP of the IT department is in charge of the strategy, planning and monitoring, design and issue management. When it comes to the strategy, the VP needs to: determine the IT structure and initiatives needed to support and align with the Strategic Goals of the company. For planning & monitoring he defines scope, prioritizes, and seeks approval / funds to implement the IT strategy. Tracks and reports progress to the business. The VP determines the overall design of the technical Services / Applications / Architecture implemented within the organization. When it comes to managing issues, the VP is: the point of escalation for resolving issues that arise both for the business and the department. He manages issues related to the people, projects, and priorities.

Processes performed are divided in two different categories: service tickets and development. Service tickets are used to handle reported defects and service requests. Service Tickets are coded as Defect when system or application in production does not work. Service Request is when users have questions and requests for system support. The Service Ticket has become part of the company’s culture, and receives mostly positive comments.

Development process: There is a difference between the service request and the project. Different companies are categorizing projects differently. For smaller companies project requires 40 hr or more. For big companies it requires 80 hr or more. Some companies are categorizing by the cost, so the project is categorized like that if requires



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\$100 000 or more (for example). The Company's leading management is reviewing and approving the project plans proposed by the leading management of the IT department. BA (Business Analyst) is in charge to document the business workflows and the system requirements, working both with the users and the IT staff. Once when the specification for the development is created and everybody agrees on the requirements then Developers from the Implementation team or System Analysts from the Service group start to develop and code the solution. BA works with the developers and users to ensure that requirements are correctly applied. Sometimes requirements are adjusted if needed. When the solution is ready for the testing, Quality Analyst (QA) performs the testing. When QA approves the final product, then User performs the User Acceptance Testing. If changes are requested by the user to be implemented into the product, then process is repeated. BA defines the changes, works with the developer to implement the changes and then with a QA during the testing. After the product is approved by QA, BA and the User, it is ready to be implemented. Final approval for the implementation is provided by the leading management of the IT department.

Many IT organizations are switching from the TPM to the APM and TPM/APM type of management. It is crucial to prepare the teams and the organizational structure properly, before all the new transitions and changes in IT project management.

#### **4. A FLEXIBLE HYBRID OF THE TRADITIONAL AND THE AGILE METHOD**

Before the organizational changes, the project management in the IT department in the FSQM Company had the characteristics of the traditional method (TPM). While working on the different kind of projects using TPM, developer's team was managed the same way through all of them. They would have milestones meetings with the IT management teams, and the team would be controlled by their manager. Each member would be in charge for the particular part of development in the projects. The IT department didn't have the QA (Quality Analyst) position in the past. Testing was usually done by the developer's team and the developer's manager, prior to the release to the user. During applying TPM, users were usually involved in the process of defining the requirements, but they were not involved a lot during the project. They were mostly presented with the final product, which followed the requirements from the beginning of the project.

The result of the traditional management TPM was that several projects were not accepted well by the user. Objections from the users were that the final product was not fitting their needs well, or the product was not user-friendly enough. Users were resentful to accept some of these products. What the IT department tried to do is to change the

product to fit user's wishes. Changing the product that is close to or already reached the final phase is time consuming and very costly, and usually causes the crossing of the deadlines.

In order to improve IT project management, the IT department in the FSQM Company decided:

- First to implement well planned organizational structure changes i.e. to reorganize the department,
- And after that to adopt the new trends in managing their projects, i.e. to apply a new hybrid (APM/TPM) method.

Characteristics of the new hybrid way (TPM/APM) for IT project management are:

1. The beginning of the project starts with the Traditional Project Management (TPM) kick off meeting, conducted between the Implementation team and the user.
2. The elements of the Agile Project Management (APM) methods are implemented later. Team is incorporating the Agile meeting points and story points, the users are involved more during the project, changes to the requirements are applied in earlier phases. If it's not possible the team is not trying to completely define the solution before the project starts. The team is implementing the Agile method by defining the solution using collaboration between the users and the development team. Users are learning now to be the active part of the project team. Collaborating with the implementation team, users are learning how to be the client in the new project environment. The Implementation team learns more about the business operations. The IT department was required to take a class about the financial services in order to learn how financial services industry is functioning, so they would be able to better support the users. The IT project managers are ensuring that the collaboration works smoothly and they work with the customer's managers to make every project successful.
3. The Implementation team holds frequent check point meetings 5 to 15 minutes long to track the status of the project.
4. Developers in the Implementation team present the interim prototypes to the users on a more frequent basis demonstrating the product in the different phases.
5. Sometimes if the project is divided in the phases where the independent part of the project was completed before other parts, the team will start QA testing of the completed part. Some of the developers would be usually in charge of fixing that part of the application if requested by the QA and

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- BA. Other developers would continue to develop other parts of the product.
6. The Implementation team develops less documentation than they would do in the past. The Agile method is more about seeing than reading. It is important to present prototypes during the project because users are able to provide much better feedback when they explore the prototype than if they read about the product without being able to see it. The Implementation team develops the documentation needed for the project. It is posted along with the other supporting documentation on the Implementation Share Point site, and it is available to each team member.
  7. Users in the FSQM Financial Services Company love their new role in the projects. They feel involved during the project, they like the ability to be the part of the decisions processes. Users are very positive about the fact that they see different phases of the project, because they are able to see that their requests are being implemented. While the product is growing users are more and more familiar with it and by the time it is completed they are comfortable to adopt it. With the new project management in place the percentage with the successfully adopted products and applications is very high now.
  8. With QA being part of the team, the Implementations team is delivering higher quality products and applications. The percentage of reported malfunctions is much lower than it used to be in the past.
  9. As the result of the all implemented changes, the rating of the IT department is rising up quickly and the satisfaction of the users is on a high level again.

Figure 6 shows six types of meetings which are included in the proposed hybrid method: kick-off, milestones, sprint planning, scheduled status, sprint review, and the final approval meeting. This is different compared to the hybrid model from [4], which has four types of meetings: kick-off, sprint planning, daily status and sprint review meeting.

#### In the proposed hybrid method:

High level beginning and end elements of the project are always done in Traditional way: beginning elements,

- Initiation of the project
- Initial team
- Initial Requirements
- Schedule
- Scope

and end elements,

- Approval
- Production

Elements of the projects that can be executed either with an Agile or Traditional methods (depending on the type of the project) are:

- Detailed Design
- Implementation
- Modified Requirements
- Team Adjustment
- Schedule Adjustment
- Unit Testing
- Integration Testing
- System Testing
- Communication between stakeholders

These elements are flexible (adaptable), because they are adapted depending on the type of the project. So, the proposed hybrid method is flexible, offering for every project an unique combination of APM and TPM elements.

While assessing the project portfolio, the Executive IT team is deciding which method should be used to manage the project. This team is defining how steps listed above should be executed, and what method (either APM or TPM) should be used during that time for each of listed flexible elements.

Figure 7 presents four different phases in the proposed flexible hybrid method FHPM (Flexible Hybrid Project Management). The first and the last one are created in the traditional manner, while the second and third are in the flexible (either TPM or APM) style. So, any flexible element can be alternatively done either in the traditional way or in the Agile way, depending on the type of the project. Namely, depending on characteristics of the project, variable number of elements from the above list of 9 elements (Detailed design, Implementation, etc.) can be done either in the Agile style or in the TPM style.

The proposed hybrid method is completely flexible, according to the characteristics of the project, as the result of using PPM. For more structured projects, the hybrid method is using more of the TPM principles (elements), and for unstructured projects the Agile schedule is dominating, which is analyzed using PPM characteristics of the project. For every project it offers a unique combination of APM and TPM elements, while the hybrid method from [4] is not flexible at all. So, the proposed hybrid method is completely flexible and adaptable to the unique characteristics of the project.

Comparing the proposed flexible hybrid method with the hybrid method from the paper [4], we can say that method proposed here is using the TPM at the beginning for creating the structure of the project, and then combines the

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APM and the TPM to maintain the flexibility of the project all the way to the completion, except the final approval meeting before the final production. The advantage of the hybrid method proposed here is that the testing, integration and the acceptance of the product can be done in the Agile way, while the hybrid method from [4] is doing that by using TPM. In the hybrid method proposed here, the business users are still involved during the testing and integration, and they are both done in iterations which include team members as: Quality Analyst, Business Analyst, business user and developer, until the product is approved. The advantage is that all team members are becoming more used to the Agile schedule during the project all the way to the end, which helps with the adoption of the Agile principles.

requirements modification, documentation, approval. Figure 10 shows PLC for the proposed hybrid method, with detailed iterative process. It is important to remember: for TPM elements there is no iterations (only one iteration), but series of iterations are applied to APM elements. So, there is no iterations for elements declared as TPM, while APM elements are implemented iteratively (in Agile manner). The iterative cycle is used during the project for APM elements, with the frequent meetings between team members. However, which combination of Agile elements depends of the particular project, so number of Agile elements vary from project to project.

When compared with the pure traditional method, the hybrid method involves customers much more during the project. The percent of successfully completed customer's requests in a timely manner is about 80%. Of 20% left: about 5% requires some development or outside vendor's help, about 2% requires training of the user, about 10% is withdrawn by the user or it is the duplicate of other request, so, very small percentage left are requests that could not be resolved.

This hybrid method is proved in the reality since it is used successfully in the series of the projects in the FSQM Company. The proposed hybrid method, and the new organization, has been successfully applied during the last couple of years in the FSQM Company.

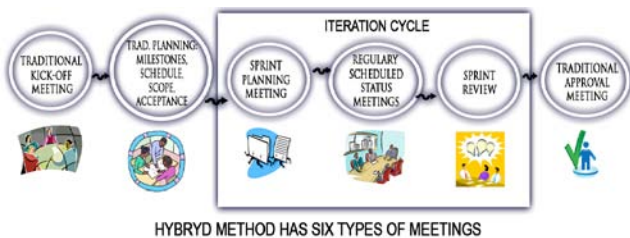


Fig 6: The hybrid process and meetings

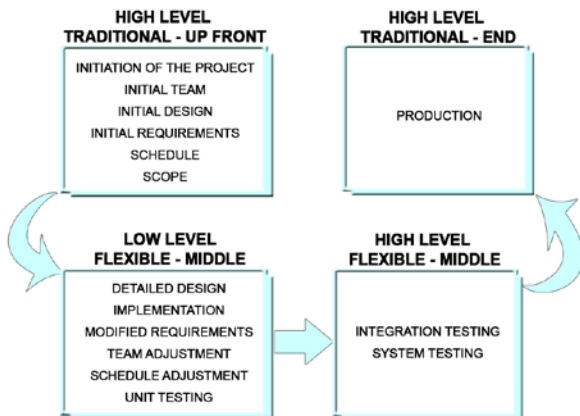


Fig 7: The hybrid method phases

The flexible hybrid way of managing the projects consists of combining flexibly the traditional TPM and the Agile method APM. The hybrid model proposed here uses the Traditional method (TPM) to create the framework and the structure of the project, and later a flexible combination of the APM and the TPM elements is injected, in order to maintain the flexibility within the project structure.

Figures 8 and 9 show iteration planning elements and iteration elements of the proposed hybrid method. The iteration planning process includes: determining milestones, resources, schedule and scope. And, iteration elements are: communication, prototypes, feedback, schedule adjustment,

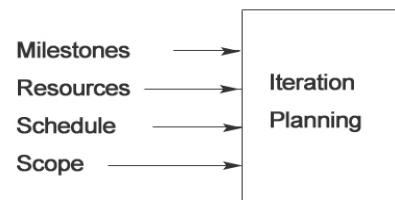


Fig 8: Iteration Planning

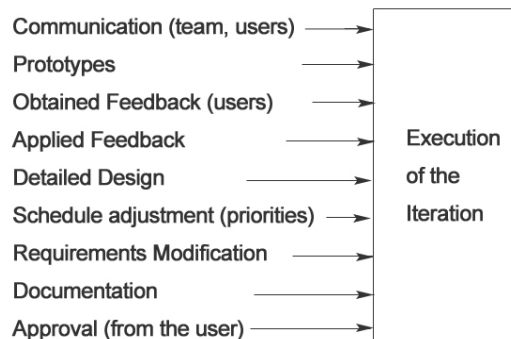


Fig 9: Iteration Elements

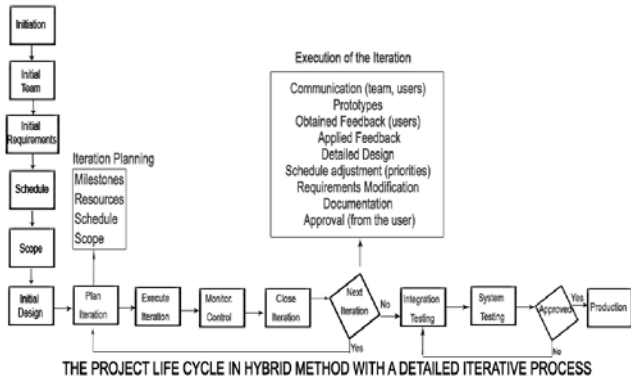


Fig 10: PLC in the proposed flexible hybrid method

### 5. PPM IN FLEXIBLE HYBRID METHOD (FLEXIBLE PPM)

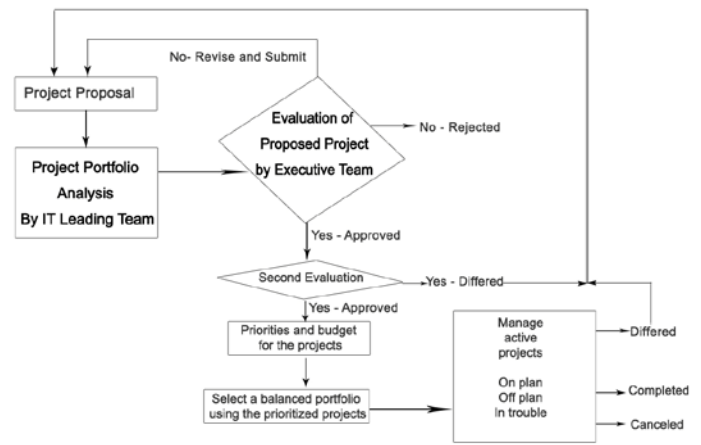
The Project Portfolio Management (PPM) is a model for decision making, analysis, project management within the organization and serves to optimize the allocation of resources, which are often in deficit. The FSQM Company has an established the PPM strategy for the project planning within one year, and the budget plays a major role during this planning (it is determined on an annual basis). In the second half of the year the leading IT management team makes a detailed analysis of the all projects entered into the plan for the next year. The analysis includes available material and intellectual resources. Proposals for the projects come from the Implementation, the Services and the Systems groups. The VP of the IT department is preparing a detailed analysis of the all projects for the leading management of the company. All the projects are evaluated at the board meeting, and it is done very carefully in order to prioritize the projects, and to determine their harmonization with the company's strategy. During this process, some projects are rejected, some are differed, and those approved are included in the budget and the plan for the next calendar year (see Figure 11). In the preparation of the project plans team is taking into account the newly proposed projects, and also the projects that were delayed in previous years.

The IT department then uses the PPM in preparing the plans for approved projects. The required material and the intellectual resources for each project are carefully determined and also the deadlines for each of them. Also plan for the each project is coordinated with other projects. Deadlines are determined in a way they would optimally fit between each other. Teams are determined for each project and each team member has a specific function to perform.

Comparing PPM from Figure 11 with PPM from Figure 2, we can see that the proposed PPM is more complex, it includes a Project Portfolio analysis by IT Leading Team, and then the two evaluations by IT Executive Team.

Every employee has been assigned a number of the projects and deadlines for the each of them. Part of the planning of these projects involves determining the details of the method which would be used for the project management. With the hybrid method of the project management, the teams are determined for the project, as well as the strategy and the plan to include team members to the project. Business customers, who order the projects which are approved by the Board, also have the projects assigned to their annual plan. The communication is established with these customers. The leading IT management team and business users make the initial plan to move forward with the projects.

It is important to stress: while assessing the project portfolio, the Executive IT team is deciding which method should be used to manage the project. This team is defining a unique combination of APM and TPM elements for each project, i.e. what method (either APM or TPM) should be used for each of flexible project element (Detailed Design, Implementation, etc.). See Fig. 12.



PROJECT PORTFOLIO MANAGEMENT LIFE CYCLE IN HYBRID METHOD

Fig 11: PPM life cycle in the proposed hybrid method

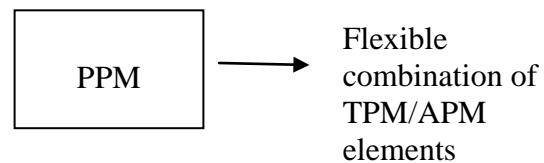


Fig 12: PPM output

### 6. IMPLEMENTING THE FLEXIBLE HYBRID METHOD

Project Migration of Financial Services Company's Websites to the New Hosting Company, discussed in this section was managed with the proposed



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hybrid of the TPM and the APM method. The hybrid way of managing this project created the positive environment for the business users and IT team to work together to achieve the desired goal. The structure of the project was created in the traditional way by creating the documentation, bringing the team members together, getting the approval for these project, determining the scope of the project and creating the project schedule. During the project, IT manager used the Agile principles to maintain the necessary flexibility by applying communication strategies and iterative project life, regular monitoring of the progress, applying changes to the document of the requirements, grouping milestones, modifying schedule and priorities. The business users and the IT team were satisfied with the outcome, the project was successfully completed.

During this project, the team had to manage and execute the process of migrating all company's websites. Team leader was in charge of developing the plan for migration, test plans, and lead the processes of migration, testing, and post-testing of all of the websites. During this project, an outside consultant was hired to manage and execute the process of migrating all of the company websites. The outside consultant was in charge of developing the plan for migration, test plans, and lead the processes of migration, testing, and post-testing of all of the websites.

The method used to manage this project inclined more toward the Agile project management methodology with the traditional method elements (see Table 4). The planning was done by the outside consultant and the part of the IT team, but the whole project was done in a rather fast pace, in brief iterations with extensive interaction and collaboration between the team members which included developers, network administrators, business analysts, quality analysts and leading management. The framework of the project was done in a TPM manner, with the defined team members, documentation developed for the existing websites, testing, proposed hosting companies, and the requirements for the proper environment. When the project started, the schedule of the project was done in a APM manner, with iterative life cycle, involving weekly story points, frequent meetings with the team members and users, with the frequent reports of the progress. Project was done in stages, and some phases overlapped with each other. Developers were responsible for the development, creating testing plans, and the outside consultant was responsible in managing the whole process.

The outside consultant conducted meetings with the team at least twice a week and monitored the progress closely. Developer's team also had regular meetings with the business analysts ensuring that business team members are approving the look of the websites on the new servers. The leading developer conducted several training sessions with the business team members from different departments

who volunteered to be part of the testing. They were in charge of the testing of the websites related to them. Because of the very tight time schedule (see the process steps in the Table 3), team had to collaborate intensively and since outside consultant was overseeing the whole process, he was meeting with team members daily ensuring that process is going in the right direction.

Team leader conducted meetings with the team at least twice a week and monitored the progress closely. Team also had regular meetings with the business analysts ensuring that business team members are approving the look and feel of the migrated websites.

**Table 3:** Process Steps

Deliverable	Responsibility
Planning	Outside Consultant
QA Test Plan	QA team, Developer
Plan Approval	Leading IT Mgmt
Execution	Outside Consultant
Testing	QA team, Developer
Production Cutover DNS Change	Outside Consultant, Developer
Post-Production Validation	QA team, Developer
GO-Live	All

**Table 4:** Combination of TPM/APM elements

Flexible element	-	TPM/APM
Detailed Design	-	APM
Implementation	-	APM
Modified Requirements	-	APM
Team Adjustment	-	APM
Schedule Adjustment	-	APM
Unit Testing	-	APM
Integration Testing	-	TPM
System Testing	-	TPM
Communication	-	APM

## 7. CONCLUSION

This paper defines a new flexible hybrid methodology of managing IT projects, combining flexibly the traditional and the Agile method. Also, it explains the necessary organizational transition of an IT organization required before switching to the new hybrid approach of managing IT projects, and how the organizational structure of an IT organization affects IT project management. To create the environment where the Agile principles could be successfully applied, an IT organization had first to implement the organizational changes. Many organizations

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are switching from the TPM to the APM or TPM/APM type of management, and it is crucial to prepare the teams and the organizational structure properly before all the new transitions and changes in IT Project Management.

For a vast majority of projects, the pure APM or the pure TPM is not effective, and the flexible hybrid project management FHPM, which flexibly combines APM and TPM, is the most appropriate solution. The flexible hybrid between the TPM and the APM has a goal to optimize the management of the different kind of projects in the company. The traditional method TPM is better fit for the projects with a clear goal and solution, and there are number of these during the year. On the other hand, projects that have no clear goal and solution are managed more with the Agile method APM, but the pure Agile method is not good enough for many such projects, and the Agile method is adjusted flexibly, resulting in the flexible hybrid method. The Agile regiment scheduling is not fully followed because sometimes the team is not ready, and sometimes the traditional method work better.

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