Agile Project Management- Redefining the Role of Managers

Malaya Kumar Nayak, Manas Ranjan Patra

1Optimity Ltd, 5-25 Scrutton Street, London EC2A 4HJ United Kingdom
E-mail: malaya.au@gmail.com

2Dept. of Computer Science, Berhampur University, Berhampur 760 007 INDIA
E-mail: mrpatra12@gmail.com

ABSTRACT
As organizations become dynamic and flexible the need for newer and better ways to solve problems has emerged. This is especially true for the IT project managers who are constantly faced with the proposition of ‘doing more with less’. With project lead times shortening by the day and demands for higher functionality project managers have to deliver on quality in the shortest possible time. Agile project management seeks to make the best use of organizational resources to enable managers and employees to adapt to changing environment rather than follow rigid, traditional project development methods. In this new paradigm the requirements of system must also change and so will the role of managers. The agile manager is distinguished from the traditional project manager by his ability to establish clear roles and responsibilities to ensure the effective communication network, proper team alignment and increased accountability. The agile manager understands the consequences of interaction between various parts of a project and guides them in a way which increases learning and adaptation. In order to ensure a smooth transition from rigid, sequential approaches to a more vibrant and flexible way of developing solutions, in a highly volatile environment, agile techniques are the need of the day.

KEYWORDS
Project management, agile management, Flexibility, dynamic, collaboration, feedback, light management style, adaptive leadership

INTRODUCTION
The IT manager of today comes under increasing amount of stress to deliver results-as and when required by top management- even with IT budgets slashing by the day. The pace of change that has resulted with new technologies coming by the day has meant many IT shops find it difficult to adapt to the requirements of software management. This is particularly true of small companies and product development initiatives where the classical methodologies of product development are being taken over by newer more agile methods. Thus subscribing to agile project management has become a matter of priority for project managers who are looking at shorter product development lifecycles and increasing flexibility.

However despite early successes a number of factors are preventing agile methodologies from gaining widespread acceptance. Agile methodologies ask for dramatic change in application development process which becomes difficult to enforce especially with these methods requiring developers, users and managers to change their way of thinking and approaching the task ahead. Projects managers tend to fall back on traditional methods in order to reduce volatility in the project. This situation leads to a “stable system drag”, in which organizations try to respond to both changing environmental conditions and their obsolete legacy systems.

LOOKING AHEAD FROM TRADITIONS
Strong management is absolutely critical to the adoption and success of agile methodologies. But researchers have discovered a serious lack of alignment between the tools of traditional project management and those of new agile development methodologies which emphasize on the following:

- Hierarchical organizational structures are means of establishing order
- Rigid procedures are needed to bring about change
- Employees are interchangeable ‘parts’ in the organizational ‘machinery’
- Increased control results in increased order
- Problems are solved through task breakdown and allocation
- Projects and tasks are sufficiently to manage through complex up-front planning

With this in mind it is no surprise that new methodologies seem informal in an organization to a level where they appear chaotic and directionless. The main cause of slow adaptation of agile methods stems from this misalignment from the traditional assumptions of management and those of new agile development methodologies which emphasize on the following:


Projects that employ agile methods are complex adaptive systems (CAS). Complex systems are nonlinear, open, and dynamic. Complexity scientists have studied the collective behavior of living systems in nature such as flocking of birds, fish, marching of ants etc. They observed that the collective behavior of these organisms produces collective intelligence that is greater than the sum of their parts. The theory of CAS has been applied in many areas of life and most recently its effects on management have been a point of discussion. This concept leads us to the proposition that project managers need just a set of simple guiding rules that gives them a framework within which to manage instead of a set of rigid instructions. Following these the agile manager becomes adaptive leader, makes use of the intelligence of his team and encourages feedback and collaboration. This is the scope of agile methods where dynamic leadership and flexible management takes precedence over any other changes that might be required.

THE AGILE SOLUTION
To better understand this relationship let us now look at agile management as a problem solving technique.

Problem-Traditional Project Manager

Traditional software development methodologies came about as the need for controlling ever-larger development projects grew. They stressed on planning to the last inch i-e one has to plan every last brick before a building can be built. These methods may have worked for some organizations and might still be useful for some today but for many others these have just increased costs and complexity while providing the top management with the wrong satisfaction that the managers are “doing something”. Huge costs got stuck in premature planning unlike the quick iterative developments and consistent customer feedback that determine success today. Some major examples that failed because of the traditional plan first approach are the London Ambulance system and Denver Airport Baggage system where managers struggled to control the size and complexity of projects afterwards.

While managers made traditional methodologies a regular feature of controlling projects the technical community which was getting frustrated with these methods gave rise to agile methods taking the task of project management to a totally different level. For example the principles of XP outline the need for focusing on the development process and since XP teams develop and monitor their own tasks there is very little use for a project manager. Given this it is no surprise that corporate management is so skeptical about implementing these agile methods which to them seem to suggest an image of a room full of developers controlling their own tasks. The traditional project manager is more like a “taskmaster” who formulates and directs the master plan to the last detail providing information about the tasks, processes and resources that are required to deliver the project. He is not ready to accept the role of software developers who can direct the flow of the project to areas he has not envisaged which is why implementing and using agile methods becomes a daunting task for him.

The Solution-Project Manager as a Visionary

To bring the best out of project management the manager needs not only be a good organizer but someone having business vision, soft management style, and communication skills along with the ability to plan, control and execute. For example, XP teams make their own plans, listen to customer feedback and make changes to their line of work accordingly. By constantly changing and chopping practices and measuring performance according to customer feedback the strength and viability of the project increases manifold.

So, if agile teams can conjure up their own strategies and make alterations accordingly, what then is the need to have a project manager working as a supreme “taskmaster” in your ranks? Well, the answer lies in the leadership skills that agile methodologies advocate and rely so heavily on. Agile methods free the project manager from the drudgery of being the controller of all tasks and enable him to focus his energies and skills on being an inspired leader. He is required to keep the team members focused on the vision, provide motivation and direction to the team and inspire them through to the completion of the task by removing barriers to progress. Thus, his role changes from being an operational controller to an adaptive leader.

The Means- Agile Project Management

If we view our organizations and teams as complex adaptive systems (CAS) which has the same principles as agile project management practices, the knowledge of CAS can be applied to develop a totally new system of management. In effect, the laws of traditional project management can be modified to fit

this new approach. For an agile project manager there are certain set of rules outlined as under that may be regarded as the guiding principles for managing Agile Projects:

- **Teamwork and Cooperation:** It has regularly been observed that when people combine their energies to work together the results are always positive and inspiring. It is the role of the agile project manager to establish and facilitate relationships between team members and keeping them motivated towards the final goal. However agile methodologies advocate the use of organic teams which implies a minor interaction penalty in terms of communication and coordination. Allowing members to join and leave teams when they wish allows a dynamic composition as well as enabling the team to better respond to environmental conditions. Even when it requires forming a larger team of say 15 members the team can be further organized into sub-teams working simultaneously. The agile manager is responsible to clearly set out team roles to ensure proper team alignment and responsibility. Additionally the agile manager needs to be cognizant of situations that hamper the successful collaboration between team members such as disrespect, egotism and "idle" team members. Some of the successful strategies that have been employed by managers to create a fun atmosphere between team members are giving team members cool 'nicknames', celebrating successes and milestones and valuing the interests of team members.

- **Guiding Vision:** A project vision translated into a simple statement of project purpose and made clear to all team members has a constructive effect on all individuals. An example to understand this principle is the U.S Army in which all members know that their commanders are not always present at the battle scene but the commander’s intent is inherent in the actions and thoughts of all soldiers. Even if the responsibility of accomplishing a mission falls on one soldier he is still able to carry out the mission. Likewise, as an agile manager you can constantly affect the performance of your team by defining, disseminating and maintaining a guiding vision. At the start of the project this would mean working in close concert with the customer, understanding his requirements and developing a vision in synch with his requirements of the project. The vision then needs to be communicated to the team in such a manner that it would provide them strength and sustainability in the face of any adversity and guide them through by keeping them focused on the goal of the project. Everyday decisions may be used to reinforce the vision and promote positive energy. For example in a planning session questions might be put up to ask them members whether business values are in concert with project and the vision.

- **Simple Rules:** In a CAS the members follow simple rules that are well defined. For example, birds flying in a flock follow their own set of rules by going on a particular direction and avoiding obstacles. The agile manager also follows simple rules which are conveyed to all members and accepted by them. In the course of the project, the manager identifies the practices that are not being followed and investigates why that so. He then smooths out the hindrances in their implementation. This may also take the form of detailing out certain practices about which the team members are skeptical to reduce uncertainty. It is however important that in setting out these simple generative rules the manager should not set such boundaries which reduce creativity and autonomy in the team.

- **Open access to information:** For a team to be adaptive to its environment the flow of information needs to be open and free. Inside the team the richness of interaction depends on the free access to information each team member enjoys. Traditional managers have always restricted this open flow of information reasoning that it results in chaos. This methodology meant information was provided on 'as and when needed' basis by the traditional managers that resulted in important pieces of knowledge being hidden from the most vital contributors to the project’s success: the team members. A number of techniques may be employed to promote open access to information such as making use of charts and magi boards to disseminate information, placing team members in close contact with each other, ordering daily status meetings etc. This makes the team members reliant on each other for information and fosters a sharing culture by which everyone gets to be in the frame.

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• **Light Management Style:** Shunning the traditional practices of viewing everything from a command and control perspective is an important aspect of elevating to agile methodologies. In view of dynamic processes which are the feature of agile techniques, control becomes an out of synch word and fails to make an impact\(^\text{10}\). Managers have come to associate control with order. They view the imposition of more and more controls as a means of establishing order. This strategy however is not practical in a world full of uncertainties. Agile managers need to relinquish the notion that they can control each and every aspect of the task as planned by them and allow flexibility and innovative thinking to take its place.

• **Adaptive Leadership:** Leading a team as enterprising and agile is by no means a simple task. The leader needs to establish the vision of the project upfront. What follows is the setting of guiding rules, managing with a light touch and overseeing the flow of communication. Adaptive leadership employs ‘systems thinking’. Systems with too much control become too rigid and systems with no structure end up in chaos. A system approach considers all members to be of value and skilled enough to impact the project in a positive way. The agile leader understands the relationship between different parts of the system and steers them in the direction of continuous learning and adaptation. The management effectively controls the degree of upfront planning and stress instead on adapting to changing conditions\(^\text{11}\).

**JUDGING THE SUITABILITY OF AGILE METHODS**

For an agile technique to be successfully implemented in the management of projects the agile methodology needs to gel in with the overall structure of the organization. The viability of agile methods for an organization can be looked upon from a number of perspectives. From a product point of view implementing agile methods has been more effective when the requirements are rapidly changing. Agile methods offer less suitability for situations with high criticality and high safety concerns although this view has been challenged in recent times. From the perspective of an organization the suitability of agile techniques can be examined from three dimensions\(^\text{12}\):

- The culture of the organization
- People must be trusted
- Communication

The most important factor probably is project size. As the size of the project increases face-to-face communication which is the essence of agile methodologies becomes difficult. That is why more and more agile theorists are focusing on the need to have small teams which can help communication flow. Another thing that may impact on the effectiveness of agile methods is the inability of the customer to clearly define his desired product. Sometimes customers fail to deliver enough information or state clearly their objective which makes it very difficult for agile managers to reach an optimal solution.

**FUTURE SCOPE**

The advent of agile project management techniques is a new lease of life for management of complex projects in an increasingly volatile and demanding world. The software managers of today need to look beyond the horizons of control and mend their ways by adopting a more visionary management style based on innovation, teamwork and support for creativity where the future of management lies. Agile Project Management thus not only provides us with some core project management methodologies but also looks at the organization as a whole, by suggesting how organizations can use project management in order to become more effective and successful.

**CONCLUSION**

The agile project managers are a completely different breed of managers whose needs and requirements should be understood and provided for by the top management of the organization. Managing an agile project unlike traditional project management techniques employs a range of dynamic, flexible and adaptive practices which have made many managers wonder what their role should be in this context. The principles of agile project management may not provide a sure shot recipe for success but by following these basic guidelines and adapting your style to them, managers will surely find themselves adding enormous value to projects as well as making their journey towards success a pleasant and enjoyable one.

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