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PMS, Managerial & Cultural Barriers to Agile Implementation
in Indian IT Project-based Organizations
Featured Paper   by Subhashish Sengupta & Debashish Sengupta

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By Subhashish Sengupta, PMP
and
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Literature Review

What is Agile Project Management?

Agile project management is an iterative approach towards managing all the phases in a project lifecycle. Unlike waterfall model where the phases are managed in a sequential order, agile project management can have all phases of the project repeated iteratively throughout the project lifecycle in the form of small increments or sprints which are directed towards completing a small portion of the overall delivery. Due to this incremental model and iterative approach, Agile provided much more flexibility in managing projects where the requirements are not very clear at the beginning of the project or where there are possibilities of changes in requirements throughout the lifecycle of the project (PMHut, 2008).

Agile project management ensures that the stakeholder involvement is extremely high leading to better efficiency and more cost effective and reliable solutions. The biggest advantage of Agile project management is the ability provided to the project manager to respond to various changes related to the project which can sometimes be crucial towards delivering projects successfully (Rouse, 2011).

The key aspects related to Agile Project Management are as follows (Tutorialspoint, 2014)-

-   Agile project management is about having all roles needed to deliver are a part of one team. Hence all roles needed should be in the same team in an Agile context.

-   The communication needs in Agile Project Management is extremely high. The team needs to interact and take stock of the progress on a daily basis. Besides open and honest communication is one of the essential pillars in Agile Project Management.

-   The entire delivery is split into shorter cycle or sprints

Application of Agile in IT project based organizations

The whole idea behind introducing Agile into IT development was to be able to develop software in a better and much more efficient way thereby reducing the wastage and making the process of software development much more efficient.

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The Agile software development is governed by the Agile manifesto which was written in the year 2001. The agile manifesto is based on the following 4 governing principles (Beck, et al., 2001)

- Individuals and Interactions over processes and tools
- Working Software over comprehensive documentation
- Customer Collaboration over contract negotiation
- Responding to Change over following a plan

The reasons why Agile was chosen to be implemented widely in IT project based organizations are as follows (Dingsøy, Nerur, Balijepally, & Moe, 2012)-

a) Software development is generally a team work which involves multiple roles and skill sets. Since Agile focuses heavily on collaborative work where people are given more importance than processes, it is ideally suited for a discipline like software development since it needs a collaborative approach by the whole team towards achieving a common goal.

b) The traditional waterfall model is focused on processes and hence mandates developing multiple documents in different phases of software development. Agile on the other hand focuses on creating only the necessary documentation which will help in developing the software. This in turn helps the IT project based organizations in reducing the wastage and performing software development in a lean way.

c) Stakeholder management is one of the most important aspects related to software development. Unlike traditional waterfall model where the stakeholders are generally involved heavily in the beginning and at the end of the project, Agile promotes active involvement of stakeholders right from the requirement gathering phase to the implementation of software into production. This results in improving the buy in from the stakeholders and in reducing the uncertainty throughout the process of software development.

Out of all the available Agile frameworks, Scrum is one of the most widely used Agile framework for software development.

Scrum has 3 roles, 3 artifacts and 3 ceremonies (NewTechnologySolutionsInc., 2002). The three roles within the scrum setup are as follows-

Product Owner- The product owner is the one who represents the customer or business. The product owner defines the product's scope, vision and its roadmap, defines the features of the software product and prioritizes the features. The product owner will not interfere with the scrum process and the day to day activities of the scrum team.

Scrum Master- The scrum master is a servant leader for the team and is responsible to ensure that the scrum processes are followed by the team. The scrum master is also

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responsible to remove the impediments which are faced by the team either directly or indirectly through other sources. The scrum master is a part of the scrum team and is closely involved along with the rest of the team.

Scrum Team- The scrum team is a cross functional team comprising of individuals with different skills. The scrum team is meant to be a self-organized team which works in a collaborative manner sharing responsibility amongst each other.

The three artifacts in a scrum setup are as follows-

> Product Backlog- The product backlog is a list of prioritized product features. These features are progressively groomed to a level at which it is ready to be picked up for development by the scrum team.

> Sprint Backlog- The sprint backlog is the backlog which is used by the scrum team during the sprint. The sprint backlog is a subset of the product backlog and contains the list of which are prioritized highest.

> Sprint Burn down- The burn down chart is used by the scrum team to track the progress in a sprint and tracks works versus time.

The three ceremonies in a scrum setup are as follows-

> Sprint Planning- The sprint planning exercise is conducted by the scrum team at the beginning of each sprint. The scrum team pulls the topmost prioritized items from the product backlog into the sprint backlog and performs estimates for each of the items which will be taken up in a given sprint.

> Daily Scrum- The daily scrum is a short status meeting conducted by the scrum master along with the rest of the scrum team. Each team member specifies what was done yesterday, what will be done today and impediments if any.

> Demo/Retrospective- The Demo and Retrospective session is carried out at the end of a sprint where the scrum team demonstrates the completed features to the product owner. The product owner provides feedback and approves/ rejects the feature developed.

The retrospective is generally conducted internally within the scrum team to discuss the lessons learnt, things which went well and improvement steps for the coming sprints. The intention is to improve continuously and make the scrum process much more efficient.

Overview of Indian IT Industry

Information technology in India is an industry consisting of two major components: IT Services and business process outsourcing (BPO). The IT and ITeS sector comprise of

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services that are related to information technology, research and development services as well as engineering designs, hardware and BPO (Joseph, 2014).

The major cities that account for about nearly 90% of the sector's exports are Bangalore, Hyderabad, Kolkata, Chennai , Trivandrum, Noida, Mumbai and Pune. Bangalore is considered to be the Silicon Valley of India because it is the leading IT exporter. According to NASSCOM, in fiscal year 2014, India's information technology and business process management (IT-BPM) industry will add $12-15 billion incremental revenue, to existing industry revenues of $118 billion. Exports by India's IT outsourcing sector are expected to rise 13-15 percent in the fiscal year starting April 2014, as an improving global economy encourages banks and companies to boost spending on technology.

NASSCOM has forecasted IT services exports in 2014-15 to rise to as much $99 billion. The increase in growth rate compares with an estimated 13 percent rise in fiscal year 2014. It also states that the Indian IT and ITeS industry is likely to grow to about $300 billion by 2020, focusing on areas like e-commerce, software products and the IT market (NASSCOM, 2014). Immigration rules in the US and privacy policies in Europe could raise concerns for the Indian information technology (IT) industry in 2015 (Doulatramani, 2015).

Research Objective

Agile is a project management technique that is more collaborative in natur (Fernandez & Fernandez, 2008). Agile Project Management approach originated from the game of Rugby, where the entire team is focused on one goal. It has 3 Roles (product owner role, scrum master r ole, and, scrum team role), 3 Artifacts (product backlog, sprint backlog and, release backlog) and 3 ceremonies (sprint planning, daily scrum and, demo & retrospective). Project Management comprises of 5 process groups (initiation, planning, execution, monitoring & control and closure) and 9 Knowledge Areas (project integration management, scope management, time management, cost management, risk management, human resource management, communication management, quality management and procurement management) (ProjectManagementInstitute, 2008). In short, the Agile methodology focuses more on the team and not on the individuals, as in a non-Agile set-up.

All this suggests that Agile implementation and execution would be smoother and simpler in systems that are naturally more team-oriented and collaborative, Our initial pilot study indicated that Agile implementation has not been too even in Indian IT-Project based companies. This is generally attributed to very individualistic behaviour and lack of collaboration. Our initial studies also revealed the performance management systems and managerial behaviour as being largely responsible for such individualistic behaviour among team members, which in turn poses a barrier to the success of agile project management approach in Indian IT companies.

Cultural studies do not provide a clear picture into individualistic versus collective behaviour amongst Indians. In fact Gert Hofstede's cultural dimension finds India, with a rather intermediate score of 48, a society with both collectivistic and individualistic traits (Hofstede, 2014).

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This paper seeks to investigate whether and how the performance management system (PMS), managerial behaviour and the organizational culture act as a barrier to team orientation and collaboration and how this in turn affects the limited success of agile project management approach.

Significance of the Study

The study is significant from the perspective of understanding he barriers in agile implementation and/or the reasons behind limited success of this project management approach in Indian IT Project-based companies. The findings of the research could be utilized for ensuring greater team-based collaboration in these companies paving the way for easier implementation of Agile and greater success of the modern project management approach. This could have a cascading effect on the efficiency and effectiveness of the project deliverables as well as on the team motivation and retention of the team members.

Methodology

The research is descriptive in nature. Qualitative research approach has been used to study the problem. In-depth interviews were conducted and respondents were also arranged in groups to conduct focus groups. Purposive sampling was chosen for the purpose of the study. Respondents were all tech-workers working in various Indian IT Project-based companies. 20 team resources and 10 managers/teal leads/project leads were chosen for the purpose of the study. A total of 30 in-depth interviews and 5 focus groups were conducted. The focus group data and the in-depth interview data were triangulated for ensuring validity. Using methodological triangulation applying the 'between-method' approach, the aggregated focus group findings and composite depth-interview findings were compared and checked for consistency.

Findings and Analysis

The in-depth interview and focus group results clearly indicated lack of collaborativeness and low team-orientation amongst Indian IT workers. They tend to exhibit more individualistic behaviour than team-oriented approach. The analysis of the data revealed the following reasons behind such individual orientation amongst the Indian IT workers-

KRAs Setting –Individual Performance versus Team performance

Majority of the respondents reported that their KRA (Key Result Areas) settings were done in a way that recorded more of their individual contributions rather than contributions as a team. In other words, KRA were highly skewed towards individual performance in a team. This meant that resources were more focused on what they did rather than what the team did; and not really if they made the right contribution in the right manner that helped the team as well. The resultant effect was team members acting more as individuals rather than part of a team

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Individual contributions to the team not valued

During training, the newly recruited engineering graduates are trained to work as a team; however by the end of the training they are evaluated based on individual performance. Initially when they join the organization there is enthusiasm for team work. The new hires tend to act as a team. Soon they find that other experienced members are acting mostly as individuals and trying to secure their ends. One may have contributed very enthusiastically to the team throughout the year, however when during appraisals the manager evaluates them only on the basis of their individual contributions. The contributions made for the team and in the team are often ignored. Generally it is only the manager who claims credit for whatever team work the team has exhibited.

Exemplifying this phenomena one respondent shared about the anomaly in the manner in which ticket-resolutions were being assessed by the manager. Tickets are requests raised by client/customers of what kind of work needs to be done. Tickets are also based on severity (urgency) determined by the SLA (service level agreements). Certain tickets that may have severity level-1 may require to be addressed within a short time. Often such tickets may take longer time to be addressed completely. Individuals who get more number of such tickets may end-up missing a lot of other tickets. The severe ones that they have addressed one may have been significant in the interest of the team. However when performance is assessed then manager takes into consideration only the number of tickets that one has addressed and not the severity of tickets. Hence despite doing work that helped the team, one may end-up getting low performance ratings.

In such a scenario, one tends to look at individual gains then working for the team. Most respondents felt that they worked really hard in the team but they never got their due credit. The respondents largely felt that at times when they have done something that had a significant impact on the team performance, their contributions were ignored. In one such case a respondent reported that a testing job that he had done staying over long hours on a particular day of resource crunch in the team had been an important job. Had the testing not been done, it could have affected the team negatively. However his contribution was never acknowledged or recognized.

Internal Politics

The relatively new resources also experience a situation where the experienced resources in the team may withhold information; a strategy of the latter to keep competition at bay. This also prompts very individualistic behaviour amongst the team members.

Internal politics is generally very high inside the teams and often performance ratings at the end of the year depend upon the kind of network that one has built with the manager. Nepotism, regionalism and flattery are rampant and favours reflect in performance ratings. Exasperated by the culture, most start following the practice. Interests of the team generally take a backseat.

One respondent shared that previously she was working in a team that worked in shifts. Since their team had become experienced in their work, hence they would finish their job at times before the shift timings. Having done their work, they would leave. The

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next team that was working in the corresponding shift mostly comprised of new hires. Irked by the fact that previous team was leaving earlier than their scheduled time they complained to the manager. Despite the fact that the experienced team was leaving before the close of the shift hours their productivity had in no way been affected.

Besides, the new team needed more time because they had to learn many of the processes. This rationale was ignored by the new team as well as by the managers. New rules like mandatory shift handover, mandatory presence of the team that finishes the shift when the shift takes over etc. were put-in place so that teams cannot leave before shit timings even if they finished their work. There was a split in the experienced team also and some turned informers to the manager to secure their interests. The ones who became informers won manager's accolades and the others were targeted in the form of greater work load, poor ratings etc. In the end it all became an individual mud-slinging battle.

Another respondent who was promoted to the rank of supervisor shared that after she became supervisor, she didn't want to manage the team like the others did. She gave a lot of flexibility to her team members and did not keep a strict tab on the time they come and leave office, what they do etc. as long as they did their work as expected. Team members also never misused this flexibility and stuck to their targets. The team slowly started performing very well and did better than the other teams. The respondent reported to the manager who had three more supervisors like her. The other supervisors struck to the traditional style and did not give any flexibility to their team members. Instead of appreciating the respondent's approach the manager soon called her for a one-on-one meeting and told her that although her team's productivity was good but they were not adhering to the code of ethics. The manager forced her to withdraw most of the flexibility. This demotivated her team and she also lost her motivation to work towards the cause of the team. Instead of being appreciated for managing her team so well, she was rapped for the flexibility that she had given to her team members. The respondent eventually resigned from her job.

Older managers, Younger Team Members

Most of the employees who work as team resources are in their early or mid-twenties and belong to millennials or generation Y cohort. The managers, on the other hand, are mostly in their forties and belong to generation X. The generation Y respondents felt that most managers wanted to follow the traditional style of working and were closed to new innovative ideas. Any suggestion that tried to change the status quo of doing things and gave more flexibility to team members was unwelcome. The managers were also termed as hierarchical and generally did not like the younger resources coming-up with ideas to them. They expected the resources to work as per the procedure followed in the past.

One of the respondent shared that she had come-up with an idea that if implemented would have helped them to do their current process faster and better. However that was not accepted by the manager as it involved skipping some of the process steps specified in the older document. This meant that the processes took more time to finish. At the end of the year during the appraisals she and rest of the team members were pulled-up for taking more time in the processes and not coming-up with ideas to improve the same.

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A respondent shared that generally every organization would have a system that helps employees to share their ideas. But they tend to be mere formalities than real structure. Even if one shared an idea, it would be in a queue for review. The review process generally was very slow. The queue would have hundreds of ideas waiting to be reviewed. Then if one's idea somehow reached the review level, the manager would stonewall it and it would be over there itself. The manager would like to do it in the traditional manner and hence would be closed to any new idea.

Few Good Managers

Painting all managers by the same brush would be a disservice to the community. Out of the various manager-respondents that we interviewed, we found that some managers were making due efforts to record the contributions of the team members having significant impact on the team performance, besides recording their individual contributions. Few good managers, as we like to call them, were keeping a record of instances where a team members worked extra-hours for the team, prevented escalations, or contributed something extra that helped the team save some blushes.

These managers maintained an incident tracker and recorded such contributions by team members. They also ensured that these contributions were also taken into consideration at the time of appraisals. However these remained individual initiatives of few mangers rather an organizational practice. Most such mangers told the researchers that their grooming happened under one such manager who guided them into such aspects. They told them the importance of keeping a track of contributions that often went unnoticed yet if recorded and properly acknowledged would benefit the team and development of team spirit amongst members.

A respondent who was promoted to the position of team lead shared that his empathy for his manager grew after getting in to similar shoes. However he felt that managers need to set an example and lead in a way that the individual and team contributions of the resources are recorded, acknowledged and recognized equally. This is turn elicits a positive behaviour towards team and helps in team building.

Discussion and Conclusion

Agile is a project management approach that needs a strong team approach for ensuring its successful implementation. In Indian IT-Project based companies, the performance management system and manager's behaviour become major barriers in exhibition of a team-oriented behaviour. The skewed nature of KRAs ensures that contributions that an individual makes towards the interest of the team are often not recorded and are largely ignored. The managerial behaviour encouraging internal politics, ignoring contribution of the team members towards team interest further hamper team-orientation amongst team members. The age or generational gap between managers and team resources further magnifies this problem. In the end all this leads to a slugfest where each individual is trying to race against the other in the pursuit of self-interest alone and not the interest of the team. In such an environment Agile-based Project Management approach finds few takers, since it mandates the team members to behave cohesively as a team rather than engage in a one-upmanship kind of behaviour.

Such behaviour not only obstructs team-level interventions as agile project management approach but also weakens the team and has an adverse impact on the motivation-level of the team members. This could also lead to active disengagement.

Design-level interventions are necessitated in Indian IT-Project base companies for smother and successful implementation and execution of Agile Project Management approach. PMS should be revisited and KRAs should be re-designed to ensure that each of them reflect individual as well as team contributions. The focus should not be only on what an individual does but how that helps the team as well. Managerial mindset also needs to alter if Agile-PM approach or similar kind of team-based approaches are to work successfully. Training managers would be strong recommendation. But that alone would not be enough to change their mindsets that are deep-seated. Hence the systems need to be re-designed and the commitment of the top leadership in bringing about cultural transformation in the company would be significant. The study also shows that what few 'good' managers were practicing needed to be institutionalized.

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