**CASE STUDY REPORT-** **YES, YOU CAN LET YOUR TEAMS SELF-ORGANIZE!**

**Executive summary**

The case study that has been presented here from the experience reports of agile 2018 is when Agile and Lean Converge in the IT transformation in American Electric Power. American Electric Power is regarded as one of the largest utilities of electricity in the US that serves approximately 5.4 million customers in its 11 states. It has about 18000 employees along with 1100 are in the IT and 500 in Applications Space of IT (agilealliance.org, 2018). It has initiated a waterfall practice with a focus on the Project manager. The issues that the company has been trying to address are overburden of work due to get approval from the waiver board and the creation of a design document that contains no or little information. As the teams have been dissatisfied with the results and the methodology, they strive for experimenting with agile practices independently. The main driver of the organisation is to develop a technology that can help in sending communications to the customers directly. However, the agility has been found not to get integrated into the culture of the waterfall.

One of the problems that the company has faced in the course of the project is the lack of decision-making capabilities and empowerment on the part of the team members. It is difficult for the team members to understand and assess the company in implementing right methodologies. It has been challenging for the participants to understand all the information that has resulted in this inability of making right decisions (agilealliance.org, 2018). This has resulted in confusion among the teams who have been able to understand the kind of agile methods that can give benefits to the company. They have not been able to get the position of their work and the activities that need to conduct for implementing proper agile methods. In order to overcome this problem, the company has expanded agility for establishing consistency in its methods and practices. The team has standardised its agile framework through a selection of Scrum in its framework. It has also initiated a common language for making agility accessible to business partners and management in the organisation.

The company has been using agile technologies for the last 9 months but it has not been able to get desired results due to inadequate skilled workforce and faulty managerial decisions. Fit assessment has been established for selecting the best projects between Waterfall and Scrum. This has helped in its expansion of Agile methods. The outcome of this process is very good as the team has been able to learn the various concepts of the lean management system. Its Kaizen approach has helped in removing conflicts and ensuring sustainable practices in the organisation. Understanding of the various perspectives of the teams has helped the organisation to deliver the desired results. Lean through A3 and Kaizen has helped in removing organizational impediments. Continuous improvement cycle has helped in delivering innovative solutions to the organizational problems. Using lean language has helped in removing confusions and improving the productivity of the teams.

**Introduction**

Agile methods are important for improving productivity and delivering business value in the initial stage of the process for minimising risks. In this study, the issues of American Electric Power in the course of implementation of Agile methods have been evaluated with particular emphasis on one particular issue. Recommendations have been provided for overcoming the issue.

It is required for any organisation to understand the agile methods that can help in ensuring operational efficiencies and improve the performance of the teams. As per the view of Abdalhamid & Mishra (2017), Agile is regarded as a highly interactive method, which allows rapid adjustments in the course of a project. In the course of the implementation of the agile methods, the teams have been found confused about the appropriate agile methods. In such a juncture, effective training methods are required for enabling the team to perform as per expected. Standardising the agile methods and having a common language helps in solving the particular issue that the company has faced in the course of the project. Adoption of lean practices has helped in streamlining the operations and bringing out innovative solutions.

**Analysing the current practices**

The problem of inadequate knowledge of implementing an agile method is due to the behavioural change of the people. It has been found that people are reluctant to change so they do not acquire the necessary knowledge of the agile methods that can prove beneficial to their organisation. Lappi & Aaltonen (2017) stated that most teams for developing Agile use ALM tool that requires ending up decomposition for developing tasks. On the other hand, most use homogeneous approaches, which become difficult to understand. This mismatch hinders the cross-team collaboration for understanding the benefits of agile methods. The management has taken the actions of expanding agile methods through the implementation of Lean management. The practices of lean like the Value Stream Analysis, Visual Process Adherence (VPA), Kaizen, Visual Process Performance (VPP), Standard Work, A3 problem solving, and Leader Standard Work that has increased its operational efficiencies. Solinski & Petersen (2016) argued that lean management helps in expanding agile methods through decision-making processes and analytical skills. However, these actions have created language problems and conflicts in the lean and scrum teams.

Agile and lean consultants have been found to have a clash of ideas, mindsets, and vocabulary. Tarwani & Chug (2016) argued that it the biggest problem for lean and agile programmers is that it is iterative which implies that the meaning changes from programmers to business people. In this context, the clashes in the mindset have occurred due to the belief that each of the teams is unique with its ideas and products. Though the lean practices are found to be integrated with the agile practices, there is an occurrence of clashes and conflicts. The lean consultants that have made the team to develop an integrated solution to the organizational problems cannot understand the practices of Scrum. It has been found that understanding of the current perspectives of lean consultants helps in overcoming clashes and conflicts.

**Overview of the case study**

In this case, the problems of implementation of agile methods in American Electric Power (AEP) have been discussed. Its focus on project management has resulted in unnecessary work and creation of a designless document containing no or little information. The measurement of the success of the project has been attributed to the actual cost, meeting dates of schedule, regular discussions and sticking to the methodology. This has led to contradictory views as the IT managers perceive the project to be successful whereas the business managers view that usability and functionality are not good, huge time is required for delivering the project.

Tension has been created between the business partners and the IT managers regarding the outcomes of the project. In such a situation, an agile team has been introduced in order to streamline the operations of the company. The team has been creating a new technology solution that can provide direct communication to the customers. It will help in providing transparency and predictability for establishing consistency in their standards and practices. However, the organisation has to face many challenges like the inability of giving effective training and earning the trust of the management.

**Identification and selection of the issues**

**Faulty managerial decisions**

**Lack of proper planning**

The management of AEP has been found to have faulty decisions like scarcity of information to the team members and lack of inadequate skilled personnel. The teams are not empowered to make realistic and right decisions that can help in betterment of the organisation. The initial stage of the project management requires proper research regarding the appropriate methodologies that can help in progress of the company.

**Scarcity of information to the teams**

In respect to the organising of the teams in AEP, the team has little or no information regarding the agile methodologies. In the words of Ahimbisibwe, Daellenbach & Cavana (2017), communication with the team members can be improved by conducting frequent meetings, discussions and seminars regarding the project. There has been a lack of communication between the manager and the team members regarding the changes that are required to be implemented in the company. Prior to the implementation of the changes, the manager can use digital communication like instant messaging and emails for saving time and conveying the important information to the team members.

**Lack of skilled employees**

The management in AEP has been facing the problem of lack of skilled and trained personnel, which has resulted in the absence of cross functionality. Cross-functional teams are required for implementing required changes in the organisation and assess the skills to get desired outcomes. Baseer, Rama &. Bindu (2015) are of the view that effective implementation of technology and resources can help in monitoring and controlling the delivery of products and services. Due to inadequate skills and capabilities, the teams have been found to lack effective decisions for implementing the project. In the context of self-organised meeting, the teams have been unable to take in all the required information.

**A critical review of issues and current practice**

**Deprivation in respect to cross functionality**

The problem that has been identified in American Electric Power (AEP) is the deprivation of cross functionality due to lack of skilled and trained personnel. Some agile experts are of the view of establishing an agile framework while others are of the opinion of having homogeneous approaches. Inadequate knowledge of right practices and planning of iterations have resulted in this confusion. Abdalhamid & Mishra. (2017) commented that the selection of an appropriate framework of Agile is required for ensuring sustainability and operational efficiencies. As for example, the implementation of Scrum helps in empowering a cross-functional and small team for solving a problem or achieving a goal. In order to make the team self organised, it is required to posses the characteristics of cross functionality, transcendence and autonomy. Due to the lack of skilled employees, the organisation finds it difficult to delivery high quality products and services in stipulated time. The department of distribution in AEP has been suffering from the lack of skilled personnel who resist to any kind of changes in the organisational context.

**Delay in completion and commencement of project**

Inadequate skilled workforce has resulted in delay in the commencement of projects, as the teams are not willing to take part in any new changes. However, Pries-Heje & Baskerville (2017) argued that lack of cross-functional teams result in stalling of the projects or delay in commencement of projects. In AEP, the managers have been trying to identify the difficulties that the teams face while implementing the project. The self-organising teams have been found to have the advantage of bringing down the operational problems and uncertainties by enhancing the accuracy and speed of making the decisions. A direct approach of resolving this issue is to recruit the required skilled and talented workforce who can help in implementing right set of agile methodologies.

**No involvement of third parties**

Involvement of the contractors in the hiring and recruitment helps in getting right and suitable candidates that can increase the efficiency of the employees. The company has been found of not recruiting employees through the contractors that has resulted in delay in their recruitment and selection of skilled candidates. In this context, the lack of required documents creates problems, as the employees have to do unnecessary work to create the documents. Thom-Manuel, Ugwu & Onyejegbu (2017) stated that the teams could have the confusion of whether to involve the method of sprinting or itineration for implementing agile methodologies.

**Non-involvement of the business members**

In the course of the creation and development of the self-organised teams, the business members have been found to be excluded from the methods of selection and recruitment. This has resulted in lack of skilled and trained professional that are required for effective completion of the project. Though the teams have been self organised, it lacks innovative and creative ideas for bringing something new in the company. It has been found that the most widely used agile methodologies are Kanban and lean, Extreme programming (XP), Agile Scrum and Dynamic Systems Development that requires different skills and capabilities for ensuring sustainability (Kulkarni *et al.* 2017). Not all methodologies are found to be suitable for the businesses so adequate knowledge of methodologies and business practices are required for maintaining balance.

**Recommendations**

It is required for the company to integrate Lean with Kanban for focusing on its development and achieving a minimum viable product. For this, the company should impart proper training to its employees so that they can develop their skills and capabilities for managing and controlling the software. It is required for the development team to focus on the tasks that are required to achieving the milestone or the phase goal. The employees should be motivated to face challenges and bring in creative ideas for resolving the problems through required changes. In addition, it is required that they give feedback and suggestions so that the management can deliver strategies for overcoming their problems.

The management should encourage its team members to coordinate with the disciplines so that they do not face problem in executing their tasks. Though the company has adopted the agile technologies for the last 9 years, the advantages of agile that have been conveyed by Rob made Joe to abide by the conditions. It is required for the employees to be creative in order to deal with unpredictability instead of depending on the processes. It is required for the management to listen to the teams and increase their motivation and commitment so that barriers can be unveiled. Communication should also be encouraged so that the team is aware of the required organizational changes. It is important that the way of working is spread throughout all departments so that they do not run counter to agile principles and hinder success.

The teams should be empowered by Joe and Rob so that they can bring in innovative solutions for implementing advanced agile methodologies. The team members are required to understand the outcomes of the research methodologies and their roles and responsibilities. Innovative and creative ideas can help in improving the outcomes of the project and complete it within time. It is required to implement the Plan Do Act Check cycle in order to take decisions on facts rather on beliefs. Continuous performing on the job training and writing standards are required for implementing appropriate agile methods. The continuous retrospective is required for learning the skills and capabilities for implementing the right mind of agile methods. It also helps in developing kaizen on a daily basis, one problem after the other, to make sure that everyone, every day, contributes to the improvement. Implementation of Obeye model is required for continuous collaboration in solving organisational problems.

**Conclusion**

It can be concluded that effective implementation of agile methodologies require skilled and trained employees so that the organisation can reap the benefits of the agile methodologies. In this context, American Electric Power (AEP) has implemented Lean and Scrum but it has not been able to get sufficient benefits. The issue that has been highlighted in the study is the confusion among the team due to the various opinions of the agile experts. In addition, the management and team have been sceptical of implementing the agile methodologies due to their lack of understanding and knowledge. Thus, it is required that the organisation imparts adequate training to its employees so that they can manage and integrate business processes effectively.

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