HUMAN RESOURCE PLANNING IN AGILE PROJECTS

DR. G. RAJESH KUMAR *; S. CHANDRAMOULI **

**ASSISTANT PROFESSOR,
DEPARTMENT OF BUSINESS ADMIN,
GOVERNMENT ARTS COLLEGE (AUTONOMOUS),
NANDHANAM,
CHENNAI.

***PH.D (PT) RESEARCH SCHOLAR,
BHARATHIAR UNIVERSITY,
COIMBATORE.

ABSTRACT
Agile methodology follows agile manifesto which defines a set of principles and guidelines to be followed in any agile projects. Some of the principles of agile manifesto are: Satisfy the customer, Business people and developers must work together, Build projects around motivated individuals, Continuous attention to technical excellence, Team reflects on how to become more effective and then tunes and adjusts its behavior accordingly. The above principles clearly states that human resource planning in agile projects not only concentrates on continuous technical excellence but also looking into other areas like customer management, team management, team collaboration, leadership, self management etc. The scientific construct of agile projects also indicates that team members needs to know and work on the entire life cycle of the project not restricting themselves to any specific area/domain/specialization. Agile projects need generalists rather than specialists. HR planning needs to bring in long term benefits to both the individuals and the organization. As per a recent Survey by Deloitte, one of the biggest challenges of HR Chief is the Talent Acquisition.

7 Biggest Challenges for HR Chief

The article is the literature review outcome of the concept of HR planning specific to agile projects environment; highlighting the challenges of the HR managers. It concludes with few recommendations aimed at making HR planning more effective in agile project environment. It is hoped that the output of this study will also contribute to the existing literature of agile projects.

KEY WORDS: HR Planning, Agile projects, Interview, Recruitment, Selection.
Relevance and importance to the Industry
The long term trend is agile is working well in more and more companies, so the future of agile is still promising. (Source: http://blogs.gartner.com/nathan-wilson/the-trough-of-disillusionment/).

Any HRM model is characterized as being employee-oriented with an emphasis on the maximization of individual skills and motivation through consultation with the workforce so as to produce high levels of commitment to company strategic goals. The major functional areas in human resource management are: (1) planning, (2) staffing, (3) employee development, and (4) employee maintenance. These four areas and their related functions share the common objective of an adequate number of competent employees with the skills, abilities, knowledge, and experience needed for further organizational goals.

In the human resource planning function, the number and type of employees needed to accomplish organizational goals are determined. Research is an important part of this function because planning requires the collection and analysis of information in order to forecast human resources supplies and to predict future human resources needs.

Introduction to the Paper
Project Human Resource Management is about getting the team together. Behind every successful project is a great team. Human resource management practices are one of the important factors of success of any organization. Organizations are putting more emphasis on HR management practices in order to sustain the current economic down turn period. Agile is a topic of growing importance and nowadays lot of customers wants their projects to be executed using agile methodologies due to its “Deliver value early” principle. Fifth principles of agile manifesto (www.agilemanifesto.org) say “Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done”. (DeMarco and Lister 1987).

To get the best possible team for your project, you need to
   o plan carefully
   o set up a good working environment
   o Negotiate for the best people you can find

Once you have put together a good team, you need to
   o Keep your team motivated
   o Keep your team up-to-date in terms of knowledge and skills
   o Manage conflicts

When HR Planning is applied properly in the agile projects, it would assist to address the following questions:

1. How many agile experienced people does the Organization have currently?
2. What are the skills and abilities of those available resources?
3. How can we forecast the resource needs in agile projects?
4. What is the plan for recruiting agile people from outside?
5. How can the organization best utilize those available skilled resources?
6. How to retain the skilled resources?
Human Resource Planning (HRP)

Human Resource Planning seeks to make the links between strategy, structure and people more explicit. Human Resource Planning (HRP) may be defined as strategy for acquisition, utilization, improvement and preservation of the human resources of an enterprise (Gupta, C.B., 1997).

Human Resource Planning is ‘the process for ensuring that the human resource requirements of an organization are identified and plans are made for satisfying those requirements’ (Bulla and Scott, 1994).

Human resource planning is ‘a decision making process that combines three important activities: (1) identifying and acquiring the right number of people with the proper skills, (2) motivating them to achieve high performance, and (3) creating interactive links between business objectives and people-planning activities’ (Quinn Mills, 1983).

Plan out exactly which resources you’ll need, what their roles & responsibilities will be and how you’ll train your team and make sure they stay motivated. It may also include identification of training needs, team building strategies, and plans for recognition and reward Programs, safety issues and the impact of Staffing management Plan on the Organization.

Human Resource Plan provides guidance about how project human resources should be defined, staffed, managed and controlled and eventually released. It generally contains

- **Roles and Responsibilities**
  - **Role**: Label for the portion of project for which the person is accountable (e.g. Scrum master, Agile Team, Product Owner, Agile Coach etc.)
  - **Authority**: Right to apply project resources, make decisions, and sign approvals
  - **Responsibility**: The work that the project team member is expected to perform
  - **Competency**: Skill and capacity required to complete project activities

- **Staffing Management Plan** that describes when and how resource requirements will be met. It includes the following data:
  - Staff acquisition (where will staffs come from)
  - Resource calendars; e.g. resource histogram (bar chart depicting resource requirement over calendar period).
  - Staff release plan (when will resources be released and no longer charged to the project?)
  - Training needs (what trainings do they need?)
  - recognition and rewards (criteria for reward)
  - Compliance (how to comply with any rule related to human resources?)
  - Safety (what policies protect the resources?)

**Need for Special Human Resource Planning in Agile Projects:**

Traditional project development methodologies like waterfall, spiral model, V Model and others requires specialists to work on each of the phases of the project. For Example: Waterfall methodology divides the whole project into phases depending on the specialized work to be done in those phases. Requirement analysis phase, Design Phase, Coding Phase, Testing phase, Implementation phase are the examples of phases of traditional waterfall methodology. In this case, the project needs business analysts (domain consultants) to work on requirement analysis phase, Specialist designer to work on design phase, Specialist coder to work on coding phase, Specialists tester to work on testing phase etc.. So HR Planning and
associated Human resource related activities are fine tuned towards the aspects of identifying and acquiring the specialists who can work on particular phase of the project and motivating them to achieve high performance. All people planning activities are related mostly with specialists. Roles and responsibilities are defined for each phases of the project. We also have a role called as Project manager who takes care of the entire project life Cycle. Project manager acts as integrator in traditional projects.

But on the contrasts, agile projects require generalists due the structure and the environmental context of agile projects. Agile team members are expected to be all rounder knowing and working on the entire life cycle of the project. Team members discuss the business logics with the customer during iteration planning phase and iteration demo phases which occurs almost every two to four weeks of time in general and so team members needs to have the knowledge and skills related with the business, customer interaction, soft skills in addition to technical skills required for executing and building the product. Hence HR Planning activities (strategy for acquisition, utilization, improvement and preservation of the human resources) needs to be fine tuned to cater the needs of the agile projects.

Software engineering is a people-based business, and the morale of the team is a vital component in the success of the project. The emphasis on the human dimension must be a key aspect both for the developers and the clients. Giving people respect and responsibility provides a good basis for the development of rich and productive communication processes within the team (Mike Holcombe, 2008).

**Plan Human Resource Management Process defined in PMBOK®**
Project Management Body of Knowledge (PMBOK Guide 5th Edition) has overall ten knowledge area. One of the knowledge Area is called as “Project Human Resource Management” and that shows the importance of HR Management. It defines four process and one of the process is “Plan Human Resource Management”.

Output of “Plan Human Resource Management” process is “Human Resource Management Plan” which defines the process and strategies of how to acquire project team, How to develop project team, how to manage project team.

**Plan Human Resource Management**
Plan out exactly which resources you’ll need, what their roles & responsibilities will be and how you’ll train your team and make sure they stay motivated.

**Acquire Project Team**
Bring your team on-board. Negotiate with functional managers to put together the best team.

**Develop Project Team**
How to keep your team motivated and up & running? Make sure they have the skills they need, set up a good working environment and keep them motivated.

**Manage Project Team**
Manage and resolve conflicts so that they don’t delay or damage the project.

Source: Project Management Body of Knowledge (PMBOK ® 5th Edition)
In Agile projects, Plan Human Resource Management plays crucial role as the entire project execution depends on the people involved in the execution of agile projects.

**Make or Buy Decision**
The basic human resource planning strategy is staffing which is referred as buy and employee development which is referred as make. As a part of HR Planning, an organization needs to formulate policies of make or buy decision. Make policy means recruiting people at junior level and then properly groom them as per organization needs to higher levels thru appropriate training and promotions. Buy policy means recruiting people from outside on need basis at all levels.

Since agile concepts works well with experienced people, make policy with fresh graduates may not be feasible. Recruiting generalists people from outside will help in agile projects. We can also identify few people inside the organization who are flexible enough to work in agile projects. Agile project’s Human Resource Planning involves designing appropriate actions related to selection, recruitment, training and career development based on agile needs. It is also affected by government policies, technological changes and availability of required manpower.

Most important and basic functions of HR Planning are Staffing and employee development. Staffing may be a onetime activity in agile projects but employee development is a continuous process.

**Human Resource Plan and Organizational Excellence**
Human Resource Planning can help to deliver organizational excellence in agile projects in following ways:

- Human Resource Plan and Business Plan are tightly linked
- It provides basis for Human Resource Development (HRD) which is an essential element of any agile project
- It ensures that an appropriately skilled project team is selected so that all members have the skills they need to deliver a successful agile project/program
- It ensures that the team has the necessary people management skills.
- It plans to increase employee contribution; that is employees’ commitment to the organization and their ability to deliver results.
- Ensure Optimum utilization of Human Resources and assists in productivity bargaining

**Hard and Soft Human Resource Planning**
Hard human resource planning ensures right number of right sort of people available when needed. Soft human resource planning ensures the availability of people with the right type of attitudes and motivation who are committed to the organization and engaged in their work, and behave accordingly. Soft human resource planning ‘is more explicitly focused on creating and shaping the culture of the organization so that there is a clear integration between corporate goals and employee values, beliefs and behaviours’ (Marchington and Wilkinson ,1996).
Agile project requires soft human resource planning. Team and individual commitment and motivation are very important for the successful execution of agile project. Agile needs people who are committed to the organization goal and engaged in their work. An engaged employee is enthusiastic and energetic in his work and helps to overcome the difficulties faced by the organization thereby contributing to the success of the organization.

HRM professionals first need to define what kind of attitude requirements is expected in the agile project along with a plan to measure those attitudinal factors, plan to analyze the gaps, plan to bridge the gaps. Bridging the gap is possible by developing appropriate skills, providing opportunities, implementing rewards, awards systems. Agile project roles (job roles) needs to be designed to provide intrinsic motivation and also emphasizing team work, emphasizing customer value, emphasizing business value, de-emphasizing top down approach thereby creating the culture of self organization and self motivation.

**High Road HRM Strategy VS Low Road HRM Strategy**

There are benefits in adopting a ‘high road’ HRM strategy of high training, high involvement, high rewards and quality commitment (John Bratton and Jeffrey Gold, 2003).

- Senior management agrees that - People represent the key source of competitive advantage.
- The continuing development of people should be seen as a vital feature of strategy within the Organization.

‘Low road’ HRM is characterized by low pay, low job security and work intensification. Following are the key points regarding low road strategy as discussed by John Bratton and Jeffrey Gold (John Bratton and Jeffrey Gold, 2003).

- With pressure to sustain or increase profits, employees are more likely to be treated as a ‘number’ in the quest to reduce costs.
- This continues despite the realization that losing staff could have negative consequences for the organization – in loss of skill, knowledge, wisdom and productivity.

An approach with low road HRM Strategy may give short term benefits to the organization but it has a negative impact on motivation, innovation and commitment which are actually vital ingredients of any agile projects. So, agile projects work only with ‘high road’ HRM Strategy. Since agile projects give more importance to people, the continuing development of people is seen as a vital feature of strategy within the Organization. High training and High involvement are the fundamental principles of agile projects along with high rewards and high quality commitment. Agile project is not feasible without high involvement of various stakeholders.

**HR Role Play in Planning**

Dave Ulrich suggests four roles for HR:

1. Strategic partner role-turning strategy into results by building organizations that create value;
2. A change agent role-making change happens and, in particular, helps it happen fast;
3. An employee champion role-managing the talent or the intellectual capital within a firm;
4. An administrative role-trying to get things to happen better, faster and cheaper.
All the above roles are applicable to HR Managers of agile projects and bring new dimensions to HR Planning.

**Strategic Partner Planning (Plan for Value Creation)**
**Change Agent Planning (Plan for managing stability Vs Flexibility)**
**Champion role Planning (Plan for managing the talent)**
**Administrative role Planning (Plan for continuous improvement in all dimensions)**

In Agile Projects, Agile Coach and Scrum masters needs to play the role of HR Planner as they are custodian of the all agile process ensuring successful execution of that process.

**Agile Team general Characteristics**
In Agile Projects, Agile Coach and Scrum masters needs to play the role of HR Planner as they are custodian of the all agile process ensuring successful execution of that process.

An effective product owner is Committed, Responsible, Authorized, Collaborative, and Knowledgeable (Boehm and Turner 2003). We can also use this as the basic qualification of the team in addition to the technical jobs being executed. Committed to the work and engaged in it fully, like any other team member. Responsible for the outcome so that “skin in the game” is a reality. Authorized by the person paying the bills to make decisions about the product under development and to know which decisions can be made solo and which require consultation with others. Collaborative as a normal mode of interacting with people. Knowledgeable about the business purposes of the endeavor and the business domain itself.

Soft skills are a critical common denominator of agile team members. These skills include the ability to create and maintain relationships, interact with various levels and functions within the organization, flexibility, adaptability, and generally being a team player. These traits are commonly referred to in most discussions on team dynamics and, indeed, they are invaluable to any team. Broad technical skills are also a must for the agile team. Find individuals who have successfully worked remotely on projects in the past. They are likely to thrive in the agile environment because they can efficiently shift between work modes. (Gary Chin, 2004).

Gary Chin also suggests the following points which are vital for the team selection.

- The ability to create networks is a valuable and uncommon skill for an agile team member.
- Find people for the agile team with the uncommon skill of being able to reinvent their organizations.
- Making the organizational changes dictated by the project team will ultimately lead to more agility in the overall organization.
- Agile team members will need to continually switch between working together and working alone.
- Adaptability may be more important than technical expertise on the agile team.
- Purely technical skills can always be outsourced.
Tuckman’s Team formation Stages

- **Forming** – people are bought together as a team – team members tend to be independent and are not as open
- **Storming** – There are disagreements as people learn to work together
- **Norming** – The team members begin to work together and adjust their work habits to help each other out. They start trusting each other
- **Performing** – Team starts working as a cohesive unit and being efficient. Now the team is working as a well-oiled machine
- **Adjourning** – The project nears completion, the team moves on from the project

**Human Resource Planning Benefits in Agile Project Environment**

Proper Human Resource Planning results into a number of benefits in agile project environment. Some of them are:

1. It plans interview techniques to be used for selecting various stakeholders of agile projects including deciding the level of skills, qualifications, etc., of future human resources
2. Create reservoir of agile talents.
3. Plan for new hire training (induction) ensuring cultural adjustments
4. It paves the way for continuous training and development which is essential in any agile projects
5. It helps and work towards improving human resource productivity
6. Plan for agile team to get motivated always
7. Promote employees to other roles in a systematic manner.
8. Provide basis for Human Resource Development and other areas
9. It helps planning physical facilities which needs to be conducive and is essential to execute agile projects
10. It helps to satisfy individual needs of the team working in agile projects (Planning for proper salary enhancement, training, transfer etc)
11. HRP makes performance appraisal more meaningful in agile projects (mostly 360 degree feedback mechanism and continuous round the year appraisal system)
12. Human resource planning reduces overall man power costs inside the organization by planning innovative practices
13. It helps the agile organization to scale up to the next level by recommending and choosing proper agile scaling methods.
14. HRP in agile projects helps to plan and thereby helps to implement agile concepts throughout the organization.

**Problems and Issues in Agile Human Resource Planning**

**Career Planning Options** : Agile in general has restricted roles like Scrum master, Team members and product owners. But hybrid model of agile follows other roles like project manger, business analysts, Architects etc. Responsibilities and authority level of these roles are entirely different from tradition projects and also it varies from one agile project to another and so having Common Career planning is very difficult in Agile Project Environment.
Changing Customer Expectation: Customer Expectations on team members changes from one agile project to another depending on various agile methodologies chosen. For example: the customer expectation varies from Scrum methodology to Extrem proramming (XP).

Moving across Team: Moving team members across the team is very difficult in agile projects as the cultural environment differs from one project to another. So deploying resources from one project to another is a tedious job as the fitment criterias varies even for the same role.

Environment changes: Performance of team members largely depends on environment in any projects. In agile projects, the team environment keeps on changing and HR planning becomes difficult in those cases. HR manages needs to follow adaptive planning in order to tackle this.

CONCLUSION and RECOMMENDATIONS
This paper has reviewed various literatures related to Human Resource Planning and various strategic elements of agile projects fitments and the links between these elements. Best fit Human Resource Planning does vary between agile projects and between organizations and it depends on business strategy of the customer and the organisation. Adaptive HR Planning approach is being recommended for HR Planners and this approach reflects organizational reality—at least at a broad level. Generic HR Planning strategies of agile projects can benefit and be derived from agile best practice theories while the best fit should be applied and customized based on the business context, project context and customer interests.

The Way Ahead
The recommendations can be used as an integrated part of the agile training and development involving lot of agile portfolios. HR Planning in agile projects can be explored further using other theories available.

REFERENCES


Gary Chin (2004), AGILE PROJECT MANAGEMENT published by American Management Association


Personnel and Development, London

Mike Holcombe (2008), Running an Agile Software Development Project, by John Wiley & Sons

Paul Rayner (2012): Portfolio and Programme Management Demystified: Managing Multiple Projects Successfully
