INTRODUCTION

Human resources management aims to make the most effective use of the people involved within a project [1]. Human resource planning, acquiring project team members, developing and managing the project team are four processes that are critical to successful human resource management. Human resource planning includes “identifying roles, responsibilities, relationships, and creating the staffing management plan [3].” Acquiring the project team involves “obtaining the human resources to complete the project [1].” Developing the project team includes “improving the competencies and interaction of team members to enhance project performance, while managing the project team includes tracking team member performance, providing feedback, resolving issues, and coordinating change to enhance project performance [1].”

Finding qualified people can be challenging, so it is important to understand and address workforce issues. This is especially true for companies in the information technology business. There is a great demand for talent in high tech industries; as such, recruitment is a challenge.

This paper discusses the main processes involved in human resources management within the context of project management, utilizing theories to illustrate key concepts within various processes. It will also outline the importance of well-planned projects and explain why project managers must play an active role in creating a positive group dynamic within the project team.

HUMAN RESOURCE PLANNING

Developing the staffing management plan is perhaps the most challenging phase for human resource project managers, especially in extremely large projects.

Techniques most effective in human resource planning are networking activities such as attending trade conferences, having informal conferences or lunch meetings, where project managers can learn about staffing management options, especially when challenged with unfamiliar projects. Applying organizational theories to human resource management plans helps project managers by using proven theories to make their plans more effective. Templates derived from previous projects help keep focus on deliverables and compile organizational charts, position descriptions, and performance appraisals. Checklists help verify competencies, roles and responsibilities, safety considerations and compliance with government regulations, policies and contracts, for instance [3].

Varieties of tools exist for project managers to organize and define roles and responsibilities of its employees.

- Hierarchical Charts and Responsibility Assignment Matrixes (RAM) are useful for depicting positions, responsibilities or work breakdown structures and levels of authority.
- RACI charts depict responsibility, accountability, consultation, and identify whom to contact on each task [1].
- Resource Breakdown Structures (RBS), provide a breakdown of the types of resources required for a project [3].
- Microsoft Project is an exceptional software tool that used in human resource scheduling, including resource loading and levelling. Resource loading is the amount of individual resources an existing schedule requires during specific periods, and resource levelling is a technique for resolving resource conflicts by delaying tasks [1].

Microsoft Project takes in all the employees’ data, along with assigned tasks, financial information as well as development timelines and deadlines for project completions and produces a visual representation of workloads. Ease of producing Gantt charts, histograms and timelines make the identification of resource shortages seamless for a project manager.

Balancing the workload is one of the challenging tasks a project manager must perform. Project managers need to be careful when using Microsoft Project as the automatic levelling tool can push deadlines or reallocate resources, so the program should best be used by someone with great knowledgeable of the program.

**ACQUIRING**

One of the first tasks a project manager needs to take on is to acquire a team, making the task of retaining team members a priority. This challenge is often resolved by working in collaboration with various departments in order to find appropriate individuals with the right skill sets for the project. Staffing plans should be created so that managers have a record of each employee’s skills and training, as reference, when looking for team members. Incentives can works as a tool in attaining and retaining valuable employees, such as IT professionals. An example of such incentives can be the ability to work from home; this is often the case when geographically distributed professionals would best suit the project. Another frequent challenge when acquiring resources is the need to consider individual schedules to work around or eliminate scheduling conflicts such as vacation schedules.

**DEVELOPING**

The development of the project team is the next challenge a human resource manager must address. A project team is not simply a group of individual professionals possessing expertise that best meet the needs of the project, but they must also be able to work well together to secure the project’s success. During the life cycle of a project, a manager would apply a variety of techniques such as training, team-building activities, reward and recognition systems, development of ground-rules, and co-location, bringing the team together either in person or by means of remote conferencing technology.
A. Training
A project team will likely possess the skills necessary to carry out the required tasks. However, some members may require additional training in certain areas to enhance their contributions to the project. For instance, it is important not to overlook soft skills, or interpersonal skills, when attempting to develop the team, and to develop a friendly and welcoming collaborative and communicative environment. On the other hand, it may be necessary to provide just-in-time training to bring individuals up to speed in a specific area. E-learning programs and reusable learning objects (RLOs) are very practical means of delivery, progressing employees quickly through essential trainings. Other organizations may choose to send high-potential employees to Six Sigma Training, a highly regarded and expensive but intensive training program that aims to produce “companies whose systems and processes are as close to perfection as possible” [2].

B. Team-Building Activities
Team-building activities are essential to a project as they bring the project team together and allow them to work closely, fostering morale and encouraging collaboration. This process may be gradual and may progress through several phases, best outlined in the “Tuckman Model” framework, developed by Dr. Bruce Tuckman, an American psychologist, extensively involved in the theory of group dynamics.

Tuckman believed that five stages occurred during the team development process: Forming, Storming, Norming, Performing, and Adjourning. At the Forming stage, individuals meet for the first time and get the first taste of group collaboration by learning the project’s framework with direction from the project manager. The Storming stage is where collaborative decisions formulate via team consensus. Team members may have different ideas about how the team should operate, and disagreements may arise. At the Norming phase, cooperation becomes more visible and is where roles and responsibilities are established. In the Performing phase, the team has a clear comprehension of the methodology and can proceed collaboratively towards a common goal. At this stage, relationships are settled and loyalty and trust build. At the final phase, Adjourning, the team concludes its work on the project and disengages. This is where each member would have achieved a sense of accomplishment and may move on to their respective next project. [1]

Team-building activities include icebreakers best suiting a team where individuals do not know each other or their working styles, or even to help employees who are having difficulty working together. Accordingly, team-building activities would most likely be very beneficial to IT companies as most IT professionals are “introverts”. In 1985, a study on MBTI types found that 75% of information system developers were introverts [1]. Team-building activities can be physical, such as survival training in the military, or mental, which includes getting to know each other’s personalities and/or working styles with the focus on bringing the team together as a whole.
C. Reward and Recognition

In the life cycle of a project, employees often need motivation in order to successfully work on and complete tasks. Many theorists and psychologists have written about a variety of factors that influence how and how well people work, in order to understand motivational factors. One of the most well known theories is that of Maslow’s Hierarchy of Needs. Abraham Maslow argued, “People’s behaviours are guided or motivated by a sequence of needs [1].” Figure 1 depicts his pyramid structure illustrating this sequence, where the need for self-actualization is at the top of the pyramid, and includes the need for challenging projects and opportunities for innovation and creativity. Next, is “esteem” wherein which individuals require recognition, prestige and status, followed by “social” which includes acceptance, love, affection and association with a team or group. Safety follows and involves physical, economic and security. Last on Maslow’s hierarchy are physiological aspects, such as food and water. Maslow’s hierarchy of needs is a guide for project managers to identify key areas, which enable individuals to take “control of their destiny [1].”

Reward and recognition can go a long way in developing and encouraging team development. Frederick Herzberg, Head of Case Western University’s psychology department researched motivation techniques for the workplace. He found that achievement, recognition, responsibility, advancement and growth, as well as by the type of work undertaken, were the factors that most motivated employees, for instance [1].

A good project manager will be able to assess what motivates his team and implement a reward and recognition system that best suits his/her team’s needs. A project manager must focus on meeting project goals, but they also must understand team members’ needs, especially since motivation is often influenced by the reward or recognition the employee will receive. If teamwork is an important objective, then the project manager may choose to reward how the individual works with the team, not just for the work that each employee conducts individually.

MANAGING

Managing the project team includes leading team initiatives and activities, providing feedback and resolving issues. The manager must make adjustments as necessary, updating project plans all while motivating the team.

There are a variety of tools and techniques available to project managers to assist them in managing their project teams. One of the simplest and most practical opportunities to gauge
employees’ performance is to observe them at work, and engage them in either formal or informal conversations. Providing feedback to employees is very important, which can be in the form of performance appraisals. Conflict management is an integral part of every project and even though tools and guidelines are available, it is often learned by experience. Issue logs are one such tool, which help in keeping track of incidents and problems in need of resolution. These logs track issues such as expressed differences of opinions, concerns, or anything that needs clarification or investigation.

Managing a team effectively can be quite a challenge. There are numerous factors to consider. A manager must attempt to build trust with and amongst team members, ensure team members feel comfortable working with each other and on their assigned tasks. A manager must ensure their employees are committed to working on the task to the best of their ability and completing the task successfully. Employees must be accountable for their actions and attentive to producing results. Establishing regular meetings is a great way for employees to communicate their concerns to keep focus on projects. Holding social functions can be a fun and easy way to build morale, build trust and for members to get to know one another. Keeping project teams small helps members work effectively together, and to keep the project uncomplicated. If problems do arise, it is very important to be patient with employees and listen to their concerns, and to help members resolve problems.

**CONCLUSION**

The human resource project manager faces many challenges, coordinating individuals, tasks and schedules, all the while conforming to government regulations, contracts and safety regulations. Software programs such as Microsoft Project can greatly assist project planning, by providing visual depictions of projects and schedules, and by balancing resources. For some project managers, other tools such as templates, checklists may be helpful. While a project manager needs to do his/her best to develop a strong project team, s/he must also ensure that the team dynamic and is able to work well with one another. S/he must also ensure that proper training is available and that reward and recognition programs are in place, in order to boost and sustain morale. Team-building activities can play a large role in building trust, and developing a collaborative project team. The human resource project manager must juggle many roles, always attempting to create a positive environment for the team, while helping them to thrive within the project, and producing a successful result.

**BIBLIOGRAPHY**

