The influence of the human resource allocation process on employee satisfaction level

Qualitative research based on ALLEGIION – an International Manufacturing plant

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The aim of this thesis is to study the influence that the human resource allocation process carried out at ALLEGION has over the employee satisfaction level of its employees. ALLEGION is an international manufacturing project-oriented company based in Ensenada, Baja California, Mexico, which operates with over 8,500 employees.

Up until the development of this thesis, ALLEGION had never contemplated the job satisfaction level of its employees as a result of the human resource allocation process carried out in the company. Some studies have previously paid attention to the impact that best practices in human resource management have in employee performance, however, to our knowledge, it has never been discussed how the allocation of the human resources in a company can influence job satisfaction. For this reason, we believe is pertinent to conduct a study focusing on this topic.

This thesis is presented as a case study of ALLEGION which follows a qualitative method and an inductive approach, where we as researchers, explored the influence that the current method followed by the company to allocate its human resources to projects has over the job satisfaction level of its employees.

The first section of this thesis is dedicated to discuss the background of our research topic and to examine relevant literature focused in the subjects of human resource allocation and employee satisfaction.

As part of this section, we encountered that four factors are consistently mentioned in the literature related to these core topics having an intrinsic relationship among them. We found that these factors were utilised by some scholars in the development of models to optimise the human resource allocation process and also during the measurement of employee satisfaction in different contexts. The four factors are: personal qualifications –referring to skills utilisation and expertise–, personal aspirations –referring to career development and personal growth–, group relationships –referring to personal relationships with co-workers and managers–, and finally, personal motivations –referring to job motivations–. At the end of this section we present a theoretical model that summarises our findings and highlights the correlations of the factors we identified from the literature.

The central part of this thesis focuses on our practical method which comprised nine interviews with employees and project managers of ALLEGION. Our interviews were aimed to discover the relationship and influence that the human resource allocation process implemented in the company had over the job satisfaction level in its employees respectively. As part of our findings we discovered that four elements were contributors to such influence and simultaneously were related to the findings obtained during our literature review. Based upon these four factors, we drew our conclusions for the study.

As a conclusion of this thesis, we found that the human resource allocation process conducted at ALLEGION holds a significant influence in the job satisfaction of its employees working in projects, and that four distinct factors should be taken into consideration during the process that functional managers carry out when they have to allocate their human resources to a certain project. These factors are: skills utilisation, career development, individual relationships of the employees with their co-workers and managers, and finally, job motivations. We concluded that the extent to which these elements are considered as part of the decision-making involved in the human resource allocation process will bring as a result a positive or negative outcome in terms of employee satisfaction among the projects of the organisation.
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1. INTRODUCTION

The aim of this chapter is to provide a clear understanding of the reasons that support our research topic and present our research question. Additionally, we outline in this chapter the gaps existing in current literature that we seek to fulfil at the end of our study.

1.1 Problem Background

Understanding what makes employees feel satisfied has been one of the main topics of study in the human resource research area that has concerned scholars over the last decades (Jiang et al., 2012, p. 1264). Some significant numbers demonstrate that organisations that succeed solving employee satisfaction issues reduce turnover by 50% and could experience a cost reduction of 12% labour cost (Carpitella, 2003).

Herzberg (1968) identified elements of employee satisfaction as factors that motivate employees inside organisations and provide the employees with encouragement to work and have a direct and positive impact on their satisfaction level. Herzberg (1968) claims that these elements could increase worker’s efficiency. Examples of Herzberg satisfiers can be described as recognition, responsibility, nature of work and personal growth or achievement (B2B International, 2015). This previous studies helped nowadays organisations to understand better how employees can achieve higher levels of job satisfaction.

The main elements that provoke stress at work include high job level expectations, minor control and limited social support (Zasshi, 2003, p.1). Organisations inside manufacturing industrial environments have also to manage the nature of project-oriented structures and project-oriented organisations who see projects as strategic tools for innovation and economic growth (Palm & Lindahl, 2014, p. 828). Project-oriented organisations can be defined as the entities that promote a project oriented vision and conduct rules and working process, cultural organisation and strategies oriented to cope with the challenges of managing projects (Huemann et al, 2007, p. 316). Human resource departments have the assignment to help organisations to lower cost by maximizing resources (Lengnick, 1988, p. 454). Organisations lean towards adopting practices that focus on profit and volume production neglecting sometimes the value of the human element (Kaur, 2012, p. 49).

Many discussions have been developed about how personal variables can affect the project performance between organisations (Belou & Gauvreau, 2004, p. 21). Scholars argue that the success of the projects could be directly related to talent employed and the process that managers use to allocate human resources to projects, having as a consequence, higher or lower levels of employee achievements throughout the project duration (Wang et al., 2009, p. 169, Ballesteros et al, 2012, p. 902). Optimization of the human resource allocation could be considered one of the most important and yet overlooked element during the project management process (Yoshimura et al., 2006. p. 832).

Organisations integrated by temporal projects and normal operation activities deal with the special virtues that project oriented teams represent (Huemann et al, 2007, p. 317). A basic assumption underlines that project oriented companies have specific requirements in the way they operate and the resources they need (Huemann et al, 2007, p.317).
The pressure and the objectives established by companies forces the process of human resource allocation to only fulfil priorities, making as a consequence that this process become more operational instead of strategic. (Yoshimura et al., 2006, p.832). Human resource management can be considered one of the main processes of the project-oriented companies, influence the way organisations select and distribute human resources (Huemann et al, 2007, p.317). Nowadays scientific research identify that team outcomes are often related to the relation between employee working abilities, incorporation, trust and technical skills between members (Baiden & Andrew, 2011; Campion et al., 1993), these statements provide support to what Herzberg (1968) developed years before in his work when developing his ‘satisfier classification’.

1.2 Theoretical Background

Previous research lean towards the belief that human resource management has a strong relationship with organisational performance without a distinction of the business division where organisations are operating (Marler, 2012, p. 6). According to literature, we can define human resource management as a group of polices designed to maximize integration among organisations, employee commitment, promote more flexible practices and increase the quality of work (Guest, 1987, p. 503). Other definitions describe human resource management as a system of activities and strategies to concentrate efforts on effective management of employees (Byars & Rue, 2006, p. 429).

Human resources can be defined as the components, persons and teams that contribute to a particular objective (Wood et al., 1998, p. 16). Nevertheless, contribution of human resource to organisations may be very unstable. Chiappetta & Almada (2008, p. 2137) highlight the main challenges for human resource departments: the first one is related to avoid turnover and develop talents needed for the future of organisations. Another important one is to build human resource departments that achieve economic objectives and met social and environment sustainable goals by developing procedures among a systematic and long-term concept.

The resource allocation process has been one of the main topics of study among management sciences, especially in the human resource area. It can be described as the process where organisations decide how to assign production factors among diverse productive activities (Wang et al., 2009, p. 1690). Human resource allocation is limited most of the times to the experience of available employees, however, a balancing content of the projects become more difficult every day emphasising the urgent need for developing a complete allocation process (Yoshimura et al., 2006. p. 832). Allocation process demands special abilities and more logical systems to assist decision making, that consequently contributes to the best distribution of human resources throughout the organisations (Yoshimura et al., 2006. p. 832). Yoshimura et al. include several elements on his models like personal motivations, career goals and the skills of the employees (Yoshimura et al., 2006. p. 832).

Some scholars describe employee satisfaction as the pleasurable emotions produced by work and the reaction towards their specific job. This concept suggests that employees form attitudes and emotions related to jobs (Kaur, 2012, p. 49). An additional definition of job satisfaction can be summarized as how individuals feel about their job, this being either negative or positive (Wood et all, 1998, p 146). Job satisfaction is one of the important attitudes that can affect human behaviour in organisations. Some scholars even argue that
managers should be able to identify job satisfaction of employees by observation (Wood et al., 1998, p. 147).

One of the pioneers developing the concept of job satisfaction was Elton Mayo (1933) from the Harvard Business School. The initial objective of this study was to observe various conditions affecting the worker’s productivity. The experiment included only with 5 employees from the wiring room and it mainly purpose was to study the relation between working conditions and frequency of fatigue (Doyle et al., 1985, p.1). The result of this research known as “Hawthorne Effect” showed that variances on the main conditions could increase productivity (Kaur, 2012, p. 49). His study, however, was mainly oriented to productivity and nowadays organisations use and develop this knowledge to improve further practices under the same premises. Academics divide job satisfaction into different dimensions. Some of them are promotional opportunities, recompense, work environment, adequate training, human-related reason for giving importance to job satisfaction can rely on the idea that employees deserve to be treated with respect and fulfil physical and psychological needs (Ellickson & Logsdon, 2001, p.173).

Academics and managers have studied and tried to improve the concepts of human resource allocation and employee satisfaction level as independent variables but most of the time they do not empathize the relationship between them (Wang et al., 2009, p. 169, Hendriks et al., 1999, p. 182, Moreno-Diaz et al. 2001, p.172, Zhang, 2010 p. VI-380). We strongly believe that developing the study base on this relation, will help in the development of further theories that will benefit scholars, managers and decision makers to better understand the consequences and route of some organisational problems in nowadays organisations.

1.3 Influence of Human Resource Allocation on Employee Satisfaction Level

Even though human resource science is one of the most important areas inside business management, the influence of human resource allocation on employee satisfaction can be considered as an underdeveloped area. Studies specify that human resource departments promote skills that could be more related to human capital in a positive way and less connected to employee motivation (Jiang et al., 2012, p. 1264).

Even if broad literature can be found about resource allocation process and employee satisfaction level, the relation between these two concepts is not deeply developed. Research including these two concepts is conducted as independent variables without giving importance to the influence existing linkage existing between them and how it can affect the success of projects performance in organisations.

1.4 Impacts of Employee Satisfaction in Projects

Hendriks et al., 1999, findings describe that multi-project situation causes issues in the allocation of limited human resources. Academics suggest flexible resource plan to consider the availability of resources and specialized knowledge like experience for example. The importance of employee satisfaction, organisational commitment and their positive and negative impacts among operation has been neglected for the past years (Boudreau, 2004).

Lack of job satisfaction can lead employees to absenteeism and turnover among other consequences (Chiappetta & Almada 2008, p. 2137). Absenteeism can be defined as the failure to be present at the workplace on a particular day. Turnover could be described as the
choice of employees to conclude employment (Wood et all, 1998, p 147). High staff turnover potential causes could fall under main factors as lack of accuracy among employee’s expectations, lack of training, low levels of autonomy, responsibility, limited access to promotions and professional plan development, poor communication between managers and employees (Wood et al, 1998, p. 199).

1.5 Research Question and purpose

How does human resource allocation process influence the job satisfaction level of the employees working in the projects of a company?

The main purpose of this thesis is to study the influence that the human resource allocation process carried out at ALLEGION has over the employee satisfaction level of its employees. Consequently, we aim to widen the current theory that describes how manufacturing plants develop and implement resource allocation procedures between projects.

During our research we aim to interview different stakeholders actively working on projects from a manufacturing plant located on the north of Mexico, identified as ALLEGION, in order to obtain a broad perspective, analysing several points of view including team members, functional managers, and project managers. The main purpose of this thesis is to study the influence that the human resource allocation process carried out at ALLEGION has over the employee satisfaction level of its employees.

At the end of this thesis, we expect that our study contributes to enrich the literature existing in the topics of human resource allocation in project-based organisations and employee satisfaction level and base new fundaments in the linkage existing between the concepts of human resource allocation process and the employee satisfaction level, providing better fundaments for future research.
2. LITERATURE REVIEW

The purpose of this section is to examine and discuss the previous models and theories, that have been developed in the field of human resource allocation and job satisfaction. These two main topics integrate the core of our research question and for this reason we believe is relevant to gain a deep understanding in both subjects. By analysing the main theories and models already developed by scholars in these areas we aim to obtain valuable inputs that will help us to construct our practical method, generate insightful discussions for our findings and support our conclusions at the end of our study.

2.1 Delimitation of The Concept ‘Influence’

Since in our thesis we aim to discover which is the influence of human resource allocation on employee satisfaction –one as consequence of the other respectively–, we believe is relevant to explain what is our understanding of the term ‘influence’.

Even when there is not a specific theory or model that stresses the influence of human resource allocation over employee satisfaction, scholars such as Jiang et al., (2012) and Guest & Conway (2011), have conducted research on topics that have certain similarities to the one discussed in this thesis.

In their study, Jiang et al., (2012, p. 1264) for instance, conducted a meta-analysis in which they examined the influence of human resource management in organisational outcomes. They focused on three different human resource aspects intended to maximize employee performance. Those aspects were: skills, motivation, and opportunity to contribute (Jiang et al., 2012, p. 1266). Their results indicated that the three elements they analysed were related to organisational outcomes and influenced three aspects of the company: the human capital and employee motivation, voluntary turnover and operational outcomes (Jiang et al., 2012, p. 1264).

Similarly, Guest & Conway (2011, p. 1686), conducted another study focusing on the association between human resource management and organisational performance. Their study used a sample of 237 senior line managers and HR managers. Their analysis confirmed an existing influence between human resource practices and human resource effectiveness in the performance outcomes of the company, where human resource effectiveness proved to have a stronger impact (Guest & Conway, 2011, p. 1686).

Both of these studies relate human resource practices to organisational performance, but they do not address the influence of human resource allocation as a potential root of employee satisfaction. We argue there is a gap in the literature regarding the subject we pursue to study and therefore, the existing literature that highlights the possible effects of human resource management practices in an organisation can be taken by us only as an indirect reference to our study.

In order to present in the the best possible manner, the influence we aim to analyse stemming from human resource allocation towards employee satisfaction, we have revised different resources to find a proper definition. We have found that the meaning of the term ‘influence’ can vary according to the science or context where it is employed, hence, many definitions can be found for this concept. In sociology for instance, influence can be defined as ‘a change in an individual’s thoughts, feelings, attitudes, or behaviours that results from interaction with another individual or a group’ (Rashotte, 2015, p. 4426). Contrastingly in business such definition can be described as ‘the effect of the fluctuation in the value of an independent
(such as income) variable on the value of a dependent variable (such as consumption)’ (BusinessDictionary, 2015).

Given the nature of our study, we argue that an adequate definition for the term ‘influence’ can be better described in general terms rather than in a specific context. For this reason, we have decided to choose the definition provided by the Oxford Dictionary as the most suitable for our thesis. Such definition is stated as ‘the capacity to have an effect on the character, development, or behaviour of someone or something’ (Oxford-Dictionaries, 2015).

Now that we have set this important reference for the accurate understanding of our research objective, it is also relevant to mention that the ‘effect’ we aim to identify will stem from the human resource allocation process, whilst the ‘behaviour’ product of the effect we will be studying, is strictly related to the job satisfaction level of the employees working at ALLEGION.

We argue there is a strong co-relation in between these two concepts where the employee satisfaction is affected directly by the way in which the selection and assignation of personnel to projects is done by the functional managers in the company. Our purpose during our study will be to analyse and study such influence. This is the justification for the selection of our research topic and the explanation of the relation we aim to validate with our findings at the end of our study.

2.2 Literature On Human Resource Allocation

The first topic that we will discuss in this chapter is related to human resource allocation and the models that have been described in some relevant studies as a tool to carry out with this process. We will first focus on discussing general concepts on the topic to then continue mentioning some of the most relevant models and techniques developed in the past three decades.

The theory we have selected is strictly linked to the purpose of our thesis and is aimed to provide the reader with a broad background on the topic. The arguments and claims disclosed in this section have been scrutinised out of different articles, journals and papers where human resource allocation is discussed as a main topic. By doing this, we aim to avoid misleading inputs that could potentially bias our study. The key elements obtained from this section will be the foundation to our theoretical model at the end of this chapter.

2.3 Human Resource Allocation in Project-Based Organisations

During the last years several authors wrote on the subject of resource-allocation for projects (Hendriks at al., 1999, p. 182, Ballesteros et al, 2012, p. 902, Selaru, 2012, p.276, Eskerod, 1998, p. 125, Moreno-Diaz et al. 2001, p. 172). Resources, be it people, money, hardware or similar, are necessary throughout the whole project development (Selaru, 2012, p.276). Wang et al. (2009, p. 169) refer to human resource allocation simply as the process that project managers conduct to allocate tasks to their staff. We think this definition is adequate to our thesis since it incorporates two important elements we will look at throughout the development of our case study: ‘project managers’ and ‘staff’ (also referred as ‘employees’ further in this paper).

Because of the special characteristics of projects, there are many differences between the allocation of ‘project human resources’ and the ‘usual’ allocation of human resources. The main difference between these two contexts lies in the requirements that a project has at its different stages in regards to the quantity and the skills the the staff has to demonstrate
An organisational unit organised by projects is usually characterised by a flat organisational hierarchy and a common resource pool from which the projects draw their resources’. (Eskerod, 1998, p. 125). Understanding this difference is essential for us as researchers because the company where we will conduct our study (ALLEGION) is an organisation that operates merely in projects. As the author Eskerod (1998, p. 125) claims, ‘in order to gain fully from an organising-by-projects strategy, it is important to know how the process of allocating human resources takes place and how to influence it’.

We believe that by gaining deep understanding in how the employees are assigned to the projects in ALLEGION will, to some extent, allow us to determine the factors that influence such process and then find their relation to job satisfaction.

Frequently, the project manager is the one in charge of administrating the human resources available to achieve the objectives of the organisation (Wang et al., 2009, p. 169, Hendriks et al., 1999, p. 182, Moreno-Diaz et al. 2001, p.172, Zhang, 2010 p. VI-380). This is however, not the case of ALLEGION, where instead of the project manager, is the functional manager who is responsible for selecting and assigning the employees to their specific projects. We argue that independently of who functions as the decision-maker in this process, human capital is an essential component of the organisation where depending on whether there is a proper combination of employees, assignment of tasks, group relationships and motivation, very different results can be achieved in the project. (Ballesteros et al, 2012, p. 902)

The optimisation of the human resource allocation is one of the most essential aspects in project management, where the human element is one of the most important yet frequently overlooked element in the process. Several scholars argue that project success is directly related to the quality of talent employed, and, more importantly, the manner in which management allocates its talent to the project. (Wang et al., 2009, p. 169, Ballesteros et al, 2012, p. 902)

When employees are assigned to work on tasks that they are not well-suited for, it can be expected a significant loss of time and resources that consequently produce low-quality project outcomes and a negative impact in the job satisfaction of the employees (Ballesteros et al., 2012, p. 901-902, Moreno-Diaz et al. 2001, p.173-174, Zhang, 2010 p. VI-380, Yoshimura et al., 2006, p. 847, MEHTA & MEHTA, 2013, p. 211, Hyung, 2009, p. 12, Ting, 1997, p. 313, Pizam & Neumann, 1988, p. 99, Duke & Sneed, 1989, p. 1087). These arguments are quite significant to our research because they outline part of the problem we aim to address during our study. The fact that low employee satisfaction has been recognised by scholars as a negative consequence of bad human resource allocation processes reinforces that the problematic we have proposed for our thesis exists and also provides validity to our research question.

So far, several studies have proposed a wide array of models for scarce resource allocation, some of them include linear programming, heuristic methods, and genetic algorithms among others (Dean et al., 1992; Hendriks et al., 1999; Morse et al., 1996; Tong and Tam, 2003; Wu, 2007, cited by Ballesteros et al, 2012, p. 902). Most of these techniques were developed to work at a functional level and have proven effective when utilised by general managers, however, some operational conflicts have been detected when project managers attempt to instrument them in project-based environments (Ballesteros et al, 2012, p. 902). Moreover, these techniques do not always consider the skills or personal qualifications of the employees, a situation that leads to generate low job satisfaction levels and poor employee

According to Ballesteros et al. (2012) an ‘optimum outcome’ is referred as the best performance possible taking into account the circumstances and quality, quantity and social bonds between the team members involved in a project. The tools and methods that were initially created to solve problems in the general management field most of the times need to be tuned up in order to meet the requirements of project-oriented environments (Ballesteros et al, 2012, p. 902).

We believe that optimal results in human resource allocation can only be obtained with the creation of methods specially dedicated to satisfy the needs of project-based organisations. At ALLEGION, no special system or standard method is utilised to allocate human resources to projects, hence, we argue that this practice might be influencing in some way the job satisfaction level of the employees.

In the following section we will exhibit some of the models and practices that some scholars have developed for the allocation of human resources in a company. Some of these models have been developed to be implemented in projects and some others have been envisioned for the allocation of human resources in non-project environments. We have decided to approach both perspectives as we believe this method will provide us with a richer amount of inputs that will help us to determine possible strengths and deficiencies in the current human resource allocation process conducted at ALLEGION. At the end of this section our main goal is to identify the aspects that scholars have considered as relevant to create their human resource allocation models.

2.4 Human Resource Allocation as a Negotiation Process

In his book ‘Projects as Arenas for Renewal and Learning Processes’, the author Eskerod (1998) argues that only a small part of the project management literature is concerned with human resource allocation in multi-project environments (Eskerod, 1998, p. 125). According to this author, in the existing research, the human resource allocation problem is treated as a classical resource allocation planning problem. For Eskerod (1998) the planning perspective implies that human resources are measured in calendar time, and that the plan is calculated in standard resource units, which means that a given task is expected to last a certain amount of time, regardless of who is performing it. He claims that the planning perspective does not explicitly focus on how the human resource allocation process takes place, but rather focuses on the plans and the calculations that governs it. (Eskerod, 1998, p. 125)

When the process of human resource allocation is seen from a planning perspective, employees become passive receivers of the work scheduled by a project planning expert. In that case, the project manager determines in one way or the other who is going to do what and when. The allocation of human resources is thus seen as a top-down procedure and it is legitimised by the plan. (Eskerod, 1998, p. 126)

In 1992 and 1993 Eskerod (1998) conducted empirical studies in two Danish companies: Oticon and Bang & Olufsen. Both companies were operating in the field of consumer electronics and organised their product development function by projects (Eskerod, 1998, p. 126). In his studies, Eskerod (1998) found out that the allocation of human resources was
regarded as a negotiation process in which two or more parties were involved. He claims that managers and employees were commonly involved in constant negotiating discussions to determine who was supposed to complete certain tasks and at what time. He also observed that sometimes project managers working in two different projects had a “battle” on which project a given employee should belong to. Moreover, it happened that a project manager tried to convince the employee only to put effort into his/her project at a given point in time. (Eskerod, 1998, pp. 126-127)

Eskerod (1998, p. 127) concluded that some factors contributed to deal with human resource allocation as a negotiation process among diverse parties. The main factors were related to scarcity of human resources, sluggish employees, increasing ambitions/goals during the project, lack of motivation for succeeding in the project goals and mismatches with the individual ambitions and interest of the people involved in the project (Eskerod, 1998, p. 127).

We believe the studies that Eskerod conducted add value to our research because his findings clearly relate to employee behaviours and consequently their satisfaction at the workplace. He claimed that project managers usually approach human resource allocation as a planning problem, and because of that, they tend to use negotiation as a way to allot tasks and job orders under a certain schedule to employees disregarding completely their motivations, skills and preferences to accomplish the tasks (Eskerod, 1998, pp. 126-127). We found his claims strongly linked to our study, because we believe ALLEGION may recur to similar negotiating processes when there is lack of time or when the context does not permit systematic organisation, hence identifying this practice at ALLEGION can help us to better understand why their employees working under projects may feel satisfied/dissatisfied at the workplace.

As an opposite reflection on Eskerod (1998) studies, we believe that his findings cannot be easily generalised to other industries and contexts. He clearly focused in a certain sector and the fact that his studies were empirical lead to believe some biases and subjectivity were involved.

2.5 Rough-Cut-Project-And-Portfolio-Planning

Most of literature on the topic of resource allocation in projects, mainly focus on a short-term-resource-allocation method, a model suited for day-to-day planning where priorities are given to project managers. Frequently, this sort of literature presents a theoretical review however the implicated implementation issues are not mentioned. (Hendriks at al., 1999, p. 182)

In 1994 Hendriks at al. (1999, p. 182) developed the concept of the ‘rough-cut-project-and-portfolio-planning’ in a young R&D organisation composed by nearly 200 employees from different disciplines arranged in 80 different projects. Their allocation process was designed in such a way that every quarter an inventory was made on a proposed project portfolio by using simple ‘Resource-Claim’ and ‘Resource-Offer’ spreadsheets in the matrix organisation (see Figures 1 & 2).
This method provided a quick and global overview of the requested project portfolio. Each claim and each offer was made clear by a percentage of workmen needed for the next quarter. The claims by the project leaders needed to be discussed with the group leaders. By doing this the ‘rough-cut-project-and-portfolio-planning’ was a tool to have the project leaders contact the group leaders in a structured way. Also management was forced to decide on what projects were placed in the portfolio and a decision on the allocation of the resources. (Hendriks et al., 1999, p. 182)

The ‘rough-cut-project-and-portfolio-planning’ entails a very simple way to allocate human resources based simply on supply and demand (Hendriks et al., 1999, p. 182). We know that the functional managers working at ALLEGION sometimes recur to a similar method when they have to administrate their human resources in the different projects of the company. The nature and scale of the operations demand that unplanned events related to human resource allocation have to be solved without previous planning or considerations. If extra staff is needed to continue with the operations, functional managers have no time to make elaborated planning or rough resource discussions. They know that any delay in their project timelines
can cause substantial extra costs for the project and their duty as a thumb rule will be always
to avoid any profit loss.

We claim that ‘rough-cut-project-and-portfolio-planning’ approach may prove effective only
in small organisations where day-to-day operations tend to be repetitive and maintain a
constant demand and supply of human resources. The fact the nature of many organisations
in the manufacturing sector (such as ALLEGION) involves constant changes in their
operations that cannot be anticipated, poses in our opinion, the portfolio planning of Hendriks
et al.’s (1999) as an inappropriate, rather week technique to allocate human resources in the
projects of the company in our study (Zashti, 2003, p.1).

2.6 The Five Elements – An Improvement to The ‘Rough-Cut-Capacity-Planning’
Method

Given the limitation encountered in the ‘rough-cut-capacity-planning’, a different study was
started by Hendriks et al. (1999 p. 182) in 1996. This new study focused on how the ‘rough-
cut-capacity-planning’ method could be further improved. They found out that a great
number of small projects in the R&D company where they conducting their research were not
explicitly looked at, causing that big projects were taken almost all the available resources.
Furthermore, they thought that the link to the day-to-day resource allocation, answering
whether resource ‘X’ needed to work on project ‘A’ today and on project ‘B’ tomorrow
afternoon, was very weak.

As a solution to this problem, Hendriks et al. (1999, p.182) proposed five elements model
where they identified five processes they considered vital for human resource allocation in
multi-project situations.

The first element of the model was referred as ‘long-term-resource-allocation’. This
procedure consisted in the preparation of a long-term plan based upon the business needs for
each discipline. The purpose of this element was to forecast at least one year ahead and
translate their results into yearly budgets for the departments and groups.

The following element in the model was ‘medium-term-resource-allocation’. Hendriks et al.
(1999) knew that planning the portfolio once a year could be effective but by looking at
organisations in practice they realised that a one-year review was too long. The ‘medium-
term-resource-allocation’ element was included to cope with the possible changes that could
emerge in the portfolio. The main input for this process was the result of the ‘long-term-
resource-allocation’ and the output of this process was supposed to be in line with the
following element: ‘short-term-resource-allocation’. This last element was designed to
provide an input for the day-to-day planning of the individual resources for the coming
weeks. In that way, possible emerging events were treated by group leaders in close harmony
with the project leaders (Hendriks et al., 1999, p.182).

A four element in the process was referred as ‘links’. This element was thought to ensure that
the long, medium and short-term allocation process had their own goals but together provide
a valuable input to make the right decisions. Finally, the five element was ‘feedback’ where
at the end of the process, the inputs obtained from the ‘links’ element were contrasted against
the real effort done. This evaluation was meant to provide further inputs to improve future
long and medium-term-resource-allocation.

By implementing these elements in a correct way, Hendriks at al., (1999) claimed that their
allocation method was able to provide an organisation with a flexible day-to-day planning
based on and in line with its business plan (Hendriks at al., 1999, p. 182). The relationship
between the five elements model is shown in Figure 3.
The five elements of Hendriks et al. (1999, p. 182) definitely add value to their previous ‘rough-cut-project-and-portfolio-planning’ in which they suggest that the number of staff needed to fulfill a one-year task had to be planned quarterly by project and group leaders. We found that their five elements model takes into consideration more realistic scenarios and prepares decision makers in the resource allocation process to mitigate emerging issues in a daily basis. The fact that they include two additional elements to forecast staff requirements at short and medium term definitely makes this approach more viable to implement in the manufacturing sector.

Something to consider when utilising this specific resource allocation method is the structure of the business plan of the company (Hendriks at al., 1999, p. 182). We know that ALLEGION carries a poor/simplistic human resource allocation plan where major decisions are made upon emerging circumstances affecting the business environment. Predictions made at the beginning of the year in the company usually change drastically by month and sometimes even by week. We argue that this situation conflicts with the nature of the five elements model and also poses strong constrains for any other resources allocation procedure that might try to successfully forecast the human resources requirements for ALLEGION’s projects. Special attention should be given to this factor as it may potentially influence the satisfaction that employees display at their workplace.

As part of the five elements model, Hendriks at al., (1999, p. 185) also highlighted a series of implications that they contemplated in order to optimally implement the model. One of the main aspects they took into account was that the knowledge of the human resources involved in the projects. They noticed that knowledge of the people working in the projects was scarce and therefore the progress of the projects was made by small specific contributions from each team member. This emphasised a need for considering diverse skills and level of expertise at the moment of allocating human resources to the projects (Hendriks at al., 1999, p. 185). To address this situation, Hendriks at al., (1999, p. 185) proposed three different categorisations of human elements that was intended to ease and optimise the selection of personnel during the allocation process. These categories were: all-round project members, experts and service employees.

![Figure 3. The Five Elements Diagram](image)

Source: Hendriks et al., 1999, p.182
All-round project managers were described as the heart of the project teams. They were in charged of having general knowledge of the operations and were the first step towards an efficient and effective well-organised project (Hendriks at al., 1999, p. 187). The experts on the other hand, were a small group of people that possessed very specific knowledge about the project. Their main task was to help in problem-solving situations or collaborate at project reviews (Hendriks at al., 1999, p. 187). Finally, the service employees were the people responsible for executing routine-like activities that were present in each project and that could be completed regardless of the discipline or expertise of the individual performing it.

The implications that Hendriks at al., (1999, p. 185) remarked in their study, clearly add some inputs to our research. We have learned that ‘skills’ and ‘expertise’ were determinant factors during the implementation of their five elements model, and that considering such aspects help them to optimise their human resource allocation outcomes. Although this study was conducted in a company that operates quite distant from the context of ALLEGION, we will see in the continuation of this chapter that other scholars have proposed similar considerations in their human resource allocation models. This situation leads us to believe that skills are a potential factor to focus on during our case study (Moreno-Diaz et al. 2001, p.172, Zhang, 2010 p. VI-380, Yoshimura et al., 2006, p. 832, Horng, 2006).

2.7 Mathematical Approach to Human Resource Allocation

A very popular solution to human resource allocation is mathematical programming. Models of linear programming and non-linear programming have been developed to solve diverse optimisation problems in the field of human resource allocation (Moreno-Diaz et al. 2001, p.172, Zhang, 2010 p. VI-380, Yoshimura et al., 2006, p. 832, Horng, 2006). Moreover, literature focused on costs-minimisation, portrays mathematical models as the most used approach by researchers (Horng, 2006).

In the following section we aim to disclose some studies and models focused on human resource allocation that are based on mathematical approaches. Beyond analysing the mathematical implications of the models, our purpose is to identify the factors/aspects that were considered for the development of these models. We believe comparing such factors will allow us to identify potential trends to enrich and support our thesis.

2.8 A Stage-Based Human Resource Allocation

Most of the literature in project management models the project as a whole with the purpose of minimise its cost or duration. Horng (2006) agrees that this practice is quite impractical in real-life and suggests instead that decomposing the project into several stages reduces the complexity of the problem. According to him, human resources are very difficult to forecast and manage. Many factors such as resignation, training, taking leaves, etc., have a great impact on performance efficiency and are hard to quantify. The longer the period to consider the human resources, the more difficult to control and confirm their schedules. Therefore, it is better to consider the human resources during the period of a stage than throughout an entire project. (Horng, 2006)

Horng (2006) claims that in reality not every project is successful. By focusing on the success of each stage, the decision maker is able to continue or interrupt the project according to the
current situation. Although the global optimum might not be always obtained with this method, the stage-based system may provide additional benefits in practice.

As a solution to issues emerging from human resource availability that cannot be anticipated, Horng (2006) developed a method called ‘the stage-based model’ where the project is split into different stages that represent milestones. By decomposing the project into several stages and setting different completion dates, a list of solutions is created and the decision maker is able to select the solution based on the criteria of cost, time, and risk. This also makes easier for the project manager to monitor and visualise the progress of the project. Horng’s (2006) model is composed of 10 steps illustrated in the diagram of figure 4.

In this model the resource allocation in each stage is modelled as non-linear programming and solved by a two-phase approach. A remedy process is developed to modify the infeasible solutions that are either generated by the mathematical heuristic of the model. In his method, Horng (2006) also included the time required for communication among teammates working in the same activity and the time required for managing the activities, so that the solution can be better used to estimate the duration of the project. Horng’s (2006) research also considers multiple objectives that are encountered during most of the practical cases, and provides a way of finding solutions of the Pareto Front for the management to make the final decision according to the latest conditions.

In overall, Horng’s (2006) stage-based model approaches human resource allocation in projects in terms of time and cost minimisation. We found this perspective interesting as most of the functional managers at ALLEGION use a similar decision-making when they allocate staff to their projects. Although this method has no direct association to employee satisfaction we still can get some insights from it as part of the practices that govern the operations at ALLEGION. Understanding what elements concern most to functional managers when allocating human resources can lead us to take other complementary factors into consideration for the better development of our research.
2.9 Non Analytical Multi-Objective Function

The literature on human resource management has lately focused more closely on the individual members of work teams (Ballesteros et al., 2012, p. 901, Moreno-Diaz et al. 2001, p.172). Recent scientific research has shown that the success or failure of a group is often related to the integration, level of trust and technical skills of the group members (Ballesteros et al., 2012, p. 901-902).

According to Moreno-Diaz et al. (2001, p. 174), the constellation of teams plays a crucial role in the economic field and in order for the group to successfully accomplish its internal goals and project objectives, the people conforming it has to possess matching abilities to the tasks they are assigned to.

In their book ‘Computer Aided System Theory’ Moreno-Diaz et al. (2001, p. 173) proposed a specific non-analytical multi-objective function that used an adapted genetic algorithm to perform automatic allocations of qualified human resources in groups. Their target was to get optimal resource group at any time and in such a way that global project time was minimal and the constraints of costs were satisfied (Moreno-Diaz et al. 2001, p.173).

A GA is a search heuristic that mimics the process of natural selection (Melanie, 1999, p. 4). The model of Moreno-Diaz et al. (2001, p. 173) was based in a specific computational optimiser architecture which considered certain aspects related to the project specifications and the variable costs and skills of each person. By doing so, their function was able to match an employee with specific expertise or qualifications to the right activity or role within the project (Moreno-Diaz et al. 2001, p.173-174).

Moreno-Diaz et al. (2001, p.174) thought that to be successful in implementing a general project group resource planning methodology, the appropriate modelling of the skills and behaviour of employees were necessary. For this reason, they created a working matrix that worked as a storage of the relationships concerning cooperation between all the human resources available. Its purpose was to obtain calculable results that enabled managers to create optimal and adequate resource groups that later could be allocated to specific project activities (Moreno-Diaz et al. 2001, p. 174).

In overall, the algorithmic function proposed by Moreno-Diaz et al. (2001, p. 180) claims to be flexible, effective and efficient enough to calculate the project flow and allocation of resource groups, integrate the plans that have been executed partly, change the personal qualification profile and group working characteristics of resource pool and change the logical project flow and project structure.

The model proposed from Moreno-Diaz et al. (2001), adds value to our thesis because it highlights the importance of considering the personal relationships of the people working in the project as part of the human resource allocation process. At ALLEGION, most of the projects are integrated for different teams that pursue internal and corporate objectives, hence we believe it is important to know how significant is to considerate personal relationships with co-workers during the formation of the working teams that will perform in a certain project as this potentially can influence the satisfaction of the employees.

Another point we rescue from this model is the fact that Moreno-Diaz et al. (2001) paid attention to ‘employee skills’, and ‘project specifications’ during the construction of their genetic algorithm. Previously we have commented about similar considerations made by other scholars, which lead us to believe that functional managers at ALLEGION should probably look beyond the elements that they are currently contemplating in order to obtain

2.10 Two-Way Choice Model for Allocating Human Resources

One of the important aspects of human resource allocation is that managers ideally should allocate personnel to tasks that pair with their personal goals and development so consequently they can contribute to the accomplishment of organisational objectives (Zhang, 2010 p. VI-380).

Supporting this idea, studies have shown that the productivity of the best employee is three times higher than the worst employee on the same position (Kennedy, 1995, cited by Zhang, 2010 p. VI-380). The allocation of personnel requires of a good identification and selection process to effectively allocate the right people to the right job, taken into account his/her individual skills, knowledge and experience to perform a specific activity. (Zhang, 2010 p. VI-380)

Although this has been already highlighted by many authors (Yoshimura et al., 2006, p. 832, Wang et al., 2009, p. 169, Hendriks at al., 1999, p. 182, Moreno-Diaz et al. 2001, p. 174), currently the allocation of human resources in organisations does not achieve the desired outcomes due to the lack of a feasible scientific methods (Zhang, 2010 p. VI-380).

Zhang (2010 p. VI-380) attempted to address this issue by developing a mathematical model aimed to approach the human resource allocation process from a two-sided perspective. He considered that both, employee aspirations and corporate objectives should converge into one method that could enable managers to effectively allocate human resources to operations.

Zhang’s (2010 p. VI-380) mathematical model had the purpose of routinely generating useful solutions to optimise human resource allocation problems taking as fundamental premise that companies should choose the employees and the employees should choose the position where they want to work (Melanie, 1999, p. 4).

To put in practice his model Zhang (2010, p. VI-382) made an experiment in a company where he assigned twelve employees to four different tasks. For this exercise he took into consideration four different variables for the algorithm: experience, skills and education of the employee as well as the basic requirements of the job.

His results at the end of the experiment were sufficient to enable the manager to identify which employee was the best candidate to perform certain activity and ease the decision of its allocation (Zhang, 2010, p. VI-382).

We consider the two-way choice model as an important input for our thesis, since it highlights four different aspects that decision-makers in the human resource allocation process should consider when assigning workers to a specific project. Some of the factors that Zhang (2010) mentions, are constantly mentioned in other models for human resource allocation and for these reason we will pay special attention to them as possible contributors of our practical method (Yoshimura et al., 2006, p. 832, Wang et al., 2009, p. 169, Hendriks at al., 1999, p. 182, Moreno-Diaz et al. 2001, p. 174).


Human resource allocation decisions are usually made according to the experience and intuition of project managers. However, as the contents of the projects become more complex
and the required abilities to carry them out more diversified, there is an increasing need for logical support systems to assist decision makers when seeking the best possible deployment of the human resources. (Yoshimura et al., 2006, p. 832)

To provide a solution to this problematic, Yoshimura et al. (2006, p. 831) developed an algorithm to select profitable projects from a wealth of possible alternatives and optimise the allocation of human resources among the selected projects. Their optimisation system consists of two algorithms, namely a project selection algorithm in charged of choosing the set of projects that maximises the total estimated profit, and a human resource allocation algorithm in charged of optimally placing human resources among the selected projects (Yoshimura et al., 2006, p. 832). Their system takes into account the satisfaction level provided by each employee’s skills, as well as his/her personal motivations and career goals. In their proposed decision-making method, human resources are not treated as uniform entities, but rather are evaluated for their specific personalities and potential to do the job. Yoshimura et al. thought that each individual had different aptitudes and aspirations to perform a particular job, hence those factors needed to be considered to obtain an optimal human resource allocation. (Yoshimura et al., 2006, p. 847).

The results obtained by Yoshimura et al.’s (2006, p. 844) optimisation system is given in something they called a ‘Pareto Optimum solution’, which refers to the best alternative possible offered to a decision maker (manager) to proceed with the selection of projects and the allocation of personnel.

At ALLEGIOn the individual qualifications or preferences of the staff are rarely considered to allocate human resources to projects. We argue that neglecting such aspects may produce negative effects in employee satisfaction and possibly also in project performance. Zhang’s (2010) and Yoshimura (2006) models touch important elements that we can indirectly relate to employee satisfaction and that we will definitely take into account when constructing our practical method.

2.12 Literature on Employee Satisfaction

In the following section we will discuss some of the most relevant theories and models that scholars have developed in the field of employee satisfaction.

The first part of this section will be dedicated to outline some generalities about job satisfaction and the implication of such concept within an organisation. Later, we will focus on examining some models from the past four decades that were developed by scholars with the purpose of measuring employee satisfaction in different organisational contexts.

The literature reviewed in this section has been selected from diverse trustable sources that include published articles and journals, academic books and official websites sourced by international academic organisations. All of the articles and websites used to compile this section have a strong focus in job/employee satisfaction and propose different approaches to the topic. We believe this will allow us to obtain respectable inputs to support the theoretical model we present at the end of this chapter.
2.13 Employee Satisfaction in Organisations

Employee satisfaction has long been recognised as a vital element to ensure the long-term efficiency and effectiveness of organisations (Tomaževič, et al., 2014, p. 209). Monitoring satisfaction in employees has become an increasingly important task for management to identify opportunities that enable the continuous improvement of human resources management processes (Tomaževič, et al., 2014, p. 210).

Employee satisfaction has most often been defined as a pleasant or positive emotional state resulting from the perception of work, conception and assessment of the work environment, work experience and the perception of all elements of the work and workplace (Mihalic, 2008, cited by Tomaževič, et al., 2014, p. 211). Although job (employee) satisfaction has been the subject of more studies than other variables in organisations, the results of those studies reveal variances across cultures (Diener et al., 2003; Spector, 2008; Vecernik, 2003 cited by Tomaževič, et al., 2014, p. 215).

Many scholars have written about the factors that impact employee (dis)satisfaction and study their correlation to organisation effectiveness. In some studies, employee satisfaction has proven to have a positive association with organisation effectiveness (Tomaževič, et al., 2014, p. 210). Moreover, studies conducted by Meyer & Allen (1999, cited in Tomaževič & Aristovnik, 2014, p. 210) have found that higher satisfaction enforces a stronger commitment with the organisation, and that a satisfied employee is more successful and performs more efficiently at work (Gorenak & Pagon, 2006, cited by Tomaževič, et al., 2014, p. 210, Bipp, 2011, p. 307).

On the contrary, employee dissatisfaction manifests itself in employees leaving the organisation, their attempts to actively voice their opinions (proposals for improvements, activity in trade unions, conversations with superiors etc.), passive loyalty (waiting for the situation to improve and being confident that the management will take the right decisions) and negligence (absences, being late, a large number of errors, etc.) (Tomaževič, et al., 2014, p. 210).

Other areas influenced by low employee satisfaction include motivation, organisational commitment as well as burnout (Whitehead, 1989, cited by Tomaževič, et al., 2014, p. 210). All of the above mentioned result in additional costs, lost time for the organisation and, consequently, negatively affect its competitiveness and development opportunities.

The consequences of dissatisfaction observed in employees include problems with their mental and physical health as well as low morale (Lambert, 2001 cited by Tomaževič, et al., 2014, p. 210). Based on the above, we may assume that it is important for ALLEGION to understand, analyse, develop and implement the concept of employee satisfaction in their human resource allocation process as this can contribute to increase their effectiveness and succeed in their job activities which ultimately generates improved outcomes for the projects.

Efficiency at projects has been said to have a link with human resource allocation (Horng, 2006, Moreno-Diaz et al. 2001, p. 174), hence we have determined that studying employee satisfaction from an efficiency perspective could add significant value to our study.
Since in our research we aim to determine the effect that human resource allocation has over the satisfaction of ALLEGION’s employees, we believe that reviewing employee/job satisfaction literature will help us to gain a broad understanding of the elements that scholars consider as the main drivers of employee satisfaction in a firm. This will help us to identify the factors that ALLEGION should look at in order to keep the satisfaction in its work force as consequence of its human resource allocation processes. Moreover, we think it is relevant for us to review some of the most popular methods and models that scholars have used to measure employee/job satisfaction in projects, because part of our study will require us to determine the employee satisfaction level of the employees at ALLEGION stemming from its human resource allocation.

We will dedicate the following section to mention and discuss some of the main theories related to employee satisfaction as well as some of the methods and tools that scholars have proposed in the past four decades to measure it.

2.14 Motivation and Job Satisfaction

When talking about employee satisfaction we find pertinent to discuss the role that motivation play on that scenario. According to research focused on these two concepts, it is obvious that motivation factors are closely related to employee satisfaction (Hyung & Oh, 2011, p. 103).

In order to understand the needs of the workforce, organisations need to understand what is driving behaviours and what are the key motivating factors of the employees (B2B International, 2015). Based on our literature review, we argue that satisfaction in employees entails many dimensions and that giving the complexity of analysing all possible characteristics implied we would only look at those which serve the purpose of this research (Robbins & Judge, 2013, p. 80). Analysing the role that motivation plays in employee satisfaction is important for us because some theories based on this term contain useful insights to map out our practical method.

One of the most recognised theories related to job satisfaction was proposed by Herzberg (1968) in 1968 (Chapman, 2015). In his studies he claims that satisfaction and dissatisfaction at work frequently arise from different factors.

In his Two-Factor Theory, Herzberg (1968) suggests that there are two factors driving employee satisfaction in the workplace: motivation factors (or satisfiers) and hygiene factors (Hyung & Oh, 2011 p. 103). The fundament of his theory lies in the claim that job satisfiers deal with the factors involved in doing the job, whereas the job dissatisfiers deal with the factors which define the job context (Chapman, 2015).

Herzberg’s (1968) theory identifies as basic "hygiene" factors aspects such as pay, job security, working conditions, supervision and company management, which serve to remove the dissatisfaction from work, rather than promote satisfaction. According to Herzberg (1968), if these factors are not satisfied, there will be an impact on employee efficiency as a consequence. ‘Satisfiers’ on the other hand, are referred by Herzberg (1968) as the factors which motivate staff, give them an incentive to work and have a direct and positive impact on satisfaction. He argues that the presence of these elements increase the worker’s efficiency. The "satisfiers" are related to recognition, responsibility, nature of the work and personal growth or achievement (B2B International, 2015). (See figure 5)
Herzberg (1968), recognises that work conditions such as motivational theories can be helpful in looking at groups of staff and understanding where their motivations lie (B2B International, 2015). We have found that three of the aspects that Herzberg (1968) mentions in his Two-Factors Theory, – ‘recognition’, ‘nature of the work’ and ‘working conditions’– possess relation to our research topic (B2B International, 2015). We argue that such concepts are directly associated to some of the models we have previously discussed about human resource allocation and therefore we will focus on them as possible key elements that could serve to establish a meaningful link between human resource allocation process and employee satisfaction (Eskerod, 1998, pp. 126-127, Hendriks et al., 1999, p. 182, Horng, 2006, Moreno-Diaz et al. 2001, p. 174).

Scholars such as Ronen and Sadan (1984, cited by Hyung & Oh, 2011, p. 103) noted that most researchers consider Herzberg’s Two-Factor Theory as the best scholar in incorporating general research trends on the range of job satisfaction theories, which include Taylor’s Scientific Management, Hawthorne Studies, and Maslow’s Need Hierarchy Theory. However, it is still ambiguous whether intrinsic (motivators) or extrinsic motivators (hygiene factors) have more significant associations with job satisfaction (Hyung & Oh, 2011, p. 103).

Likert (1961, cited by Hyung & Oh, 2011, p. 104) and McGregor (1960, cited by Hyung & Oh, 2011, p. 104) argued that a more positive correlation exists between intrinsic motivators and job satisfaction, however, methodological inconsistencies, and the fact that different researchers have used different motivation variables have resulted in mixed findings about Herzberg’s Two-Factor Theory (Chitiris, 1988, cited by Hyung & Oh, 2011, p. 104). Is clear that Herzberg’s (1968) theory has to be meticulously examined in a ‘case-by-case’ basis when trying to apply it to certain organisations.
Taking these arguments into consideration, we cannot claim that Herzberg’s motivation proposal is readily applicable to all kinds of organisations. Although we have already identified some aspects from his Two-Factor Theory that can function as potential connections to our research objectives with human resource allocation, we think it is appropriate to further study the dimensions on which job satisfaction has been measured by more researchers. We believe this will help us to carry out a broader analysis of the current situation of ALLEGION and therefore guide us to a possible answer to our research question at the end of our study (Robbins & Judge, 2013, p. 80).

2.15 Work Engagement as Part Of Employee Satisfaction

Penna (2007) is another scholar who approached employee satisfaction from a different perspective. He believes that employee engagement leads to employee satisfaction (among other work attitudes) and that some factors are responsible for the encouragement of engagement in the workforce (MEHTA & MEHTA, 2013, p. 211)
He espouses a model of engagement which incorporates job satisfaction, feeling valued at work, communication and training & development as key influences on staff engagement and overall satisfaction at work (B2B International, 2015).
Engagement has been described as ‘a combination of commitment to the organisation and its values, plus a willingness to help out colleagues (organisational citizenship). It goes beyond job satisfaction and is not simply motivation’ (B2B International, 2015).

Penna’s (2007) model of engagement indicates that employees seek to find ‘meaning’ at work. Penna (2007) defines ‘meaning’ as ‘fulfilment from the job’ (MEHTA & MEHTA, 2013, p. 211). Fulfilment comes from the employee being valued and appreciated, having a sense of belonging to the organisation, and feeling as though they are making a contribution. (See figure 6)

Penna’s model is very similar to Herzberg's (1968) Two-Factors Theory, in relation to its "hygiene" factors at the base of the triangle and ‘satisfiers’ towards the top. Penna (2007) claims that as an organisation successfully meets each of these engagement factors, the organisation becomes more attractive to new potential employees and becomes more engaging to its existing staff.

![Figure 6 - Penna's Hierarchy of Engagement (2007)](image)


Penna’s (2007) engagement model is relevant to our study because it states that employees are likely to become satisfied, and moreover, engaged with their job and organisation when
certain aspects such as ‘working conditions’, ‘meaningfulness of the job’ and ‘learning and developing opportunities’ are experienced by them at the workplace.

We argue that the ‘working conditions’ cover a broad range of topics and issues, some of them referred to the employees being satisfied with the task they are being assigned to or the project in which they are being allocated. Furthermore, ‘job meaningfulness’ can be related to ‘employee motivation’, an aspect that scholars consider relevant at the moment of allocating staff to a certain job or activity (Yoshimura et al., 2006, p. 847, Ballesteros et al, 2012, p.902).

We believe that ‘learning and developing opportunities’ also posses a link to human resource allocation, as we can argue that an employee only can fulfil this need when he/she is allocated to the right project and his/her skills are properly used and developed over time by performing certain task (Wang et al., 2009, p. 169, Eskerod, 1998, pp. 126-127, Ballesteros et al., 2012, p. 901-902, Moreno-Diaz et al. 2001, p.173-174, Zhang, 2010 p. VI-380, Yoshimura et al., 2006, p. 847). Considering such claims, we can argue that employee engagement is something that functional managers at ALLEGION should ultimately pursue when allocating their human resources to the different projects of the organisation, according with Penna (2007) this will not only ensure employee satisfaction in their projects, but also will foster willingness in their staff to go the extra mile and perform more efficiently (MEHTA & MEHTA, 2013, p. 211).

2.16 Previous Studies on Job Satisfaction Measurement

Considerable attention has been given to the measurement of job satisfaction since the Job Diagnostic Inventory (JDI) was developed in 1969 as an attempt to measure of the satisfaction of employees at the the workplace (Hyung 2009, p. 12). This instrument considered elements such as the work itself, pay, supervision, co-workers, and opportunities for promotion as the five variables to quantify job satisfaction (Smith, Kendall, & Hulin, 1969, cited by Hyung 2009, p. 12).

Weiss and colleagues (1967, cited by Hyung 2009, p. 12) also developed the Minnesota Satisfaction Questionnaire (MSQ) for measuring job satisfaction. Unlike the JDI, the MSQ divided the motivation variables into two categories: intrinsic and extrinsic satisfaction factors. The former includes achievement, independence, security, and variety; the latter includes pay, promotion, policies, supervision, co-workers, and working conditions. Both the long and short forms of the MSQ have been used for measuring job satisfaction based on Herzberg’s Two-Factor Theory of Motivation. The long-form MSQ measures job satisfaction by using 20 scales, such as achievement, activity, advancement, authority, and independence, and each scale consists of five items. The short-form, in contrast, is composed of three scales: intrinsic satisfaction, extrinsic satisfaction, and general satisfaction. The long form of the MSQ was used by Walsh (1980) to assess job satisfaction for residence hall service personnel. DeMicco and Olsen (1987) used the short-form MSQ to study how job satisfaction affected retirement intention in older employees (Hyung 2009, p. 12).

More recently, in the book ‘Organisational Behavior’, Robbins & Judge (2013, p.81) mention two different approaches to measure employee satisfaction. The first method is called ‘the single global rating’ where the employee responses to one question, such as ‘all things considered, how satisfied are you with your job?’. Respondents are prompt to circle a number between 1 and 5 on a scale from ‘highly satisfied’ to ‘highly dissatisfied.’ The second method, is called the ‘the summation of job facets’, which is in fact more sophisticated. This
approach identifies key elements in a job such as the nature of the work, supervision, present pay, promotion opportunities, and relationships with co-workers. Respondents rate these on a standardised scale, and researchers add the ratings to create an overall job satisfaction score. (Robbins & Judge, 2013, p. 80)

Robbins & Judge (1991, p. 79) define job satisfaction as ‘a positive feeling about a job resulting from an evaluation of its characteristics’. According to this definition, we can infer that assessing all possible factors affecting the perception of one individual towards his/her job can provide us with an indication on whether the employee is satisfied at his/her workplace or not. However, such analysis requires the consideration of several elements that vary from one context to another. The characteristics behind the feelings that an employee develops over time for his/her job are hard to standardise as each context entails different aspects to consider (Hyung & Oh, 2011, p. 104). Such aspects may refer to social factors usually dictated by the culture or environment where the individual (employee) interacts (Robbins & Judge, 2013, p. 80).

At ALLEGION the satisfaction of the employees working in projects has never been measured with a specific purpose, hence we unknown under which standards the organisation should be evaluated. The measurement of job satisfaction in the workplace is a tough concept to grasp due to its individualistic and circumstantial nature. What one employee desires from their work, another may not. One one employee may put their relation with co-workers in a high regard, while another may find pay and work conditions most important. Unfortunately, one aspect alone will most likely not effect an employee's job satisfaction (Redmon, 2015). Therefore, we can argue that the accurate assessment of the satisfaction level of the employees working at ALLEGION implies numerous aspects of a job that the organisation can manage to increase satisfaction in the workplace, and that these are not always related to just performing effectively (Robbins & Judge, 2013, p. 79, Redmon, 2015).

During our research, we have found that many researchers have discuss the factors leading to job satisfaction with the purpose of evaluating them in a firm (Hyung & Oh, 2011, p. 105, Tomaževič, et al., 2014, p. 209, B2B International, 2015, Robbins & Judge, 2013, p. 80).

Supervision quality, orientation and training, job characteristics, and demographic variables are factors that have been shown to be related to employee job satisfaction in some job settings (Blank & Slipp, 1994; Duke & Sneed, 1989b; Eberhardt & Shani, 1984; Fernsten & Brenner, 1987; Roehl & Swerdlow, 1999; Sims, Szilagyi, & Keller, 1976; Tayeb, 1996 cited by Sneed & Woo-Sik, 2001, p.2). Vice versa, employee job performance, customer orientation, customer perception of service quality, employee attitude, and intent to turnover have been shown to be affected by job satisfaction in other studies (Vroom, 1964, Hawkins & Lee, 1991; Hoffman & Ingram, 1992, Schneider & Bowen, 1985, Porter & Steer, 1973; Vroom, 1964, Schmit & Allscheid, 1995, cited by: Sneed & Woo-Sik, 2001, p.2).

Sneed & Woo-Sik (2001, p.2) suggest that the factors related to job satisfaction can be divided in two categories: work-related characteristics and demographic variables. They argue that work-related characteristics are all those aspects inherent to the job requirements and the activities connected to it –skills, experience, aptitudes, special traits, etc.– while demographic variables refer to those aspects correlated to the environment and culture in which the employee performs those activities –age, education level, values, hierarchy– (Sneed & Woo-Sik, 2001, p.2).
Another classification of factors affecting job satisfaction was proposed by Ting (1997, p. 313). He studied the job satisfaction of 56,767 full-time federal government employees and suggested that there were three primary groups influencing job satisfaction: job characteristics, organisational characteristics, and individual characteristics (Ting, 1997, p. 313).

Ting (1997, p. 313) refers to job characteristics as pay satisfaction, task clarity, skill utilisation, and task contribution. Whereas organisational characteristics are referred as the relationships with co-workers and supervisors, and individual characteristics are referred as variables describing the employees themselves (Ting, 1997, p. 313).

Up until this point, we have recognised that each scholar has different ways to categorise the elements that affect job satisfaction as they base their selection on the very nature of their study. For this reason, we have decided no to focus on the categories that scholars use but rather we will centre on the factors that they have considered to measure employee satisfaction.

Ting (1997, pp. 324:327) argues in his study that ‘skill utilisation’ is the first and more significant factor impacting the job satisfaction of employees at all levels. He defines ‘skill utilisation’ as ‘the degree to which jobs allow individuals to utilise their skills and abilities’ and claims that most of the employees show a high degree of job satisfaction when their skills and abilities are properly utilised to perform their tasks (Ting, 1997, p. 313). Moreover, he found that the level of satisfaction in an employee can increase when he/she has a clear understanding of the contribution his/her tasks is doing for the organisation and that the relationship with supervisors and co-workers also play an important role in this measure (Ting, 1997, p. 327).

As a second most significant factor, Ting (1997, p. 326) found that organisational commitment had a strong effect on job satisfaction levels. He refers to organisational commitment as the ‘belief and trust in organisational goals and values, and affections toward the organisation’ (Ting, 1997, p. 315). His studies conclude that individuals are likely to become psychologically attached to the organisation before they develop affectionate attitudes toward their jobs, and employees often develop job satisfaction consistent with the level of organisational commitment (Ting, 1997, p. 315). We argue that Ting’s (1997) claims, relate to some extent to Penna’s (2007) engagement model, as both scholars relate job satisfaction with the attachment that employees develop for the organisations where they work –job engagement– (MEHTA & MEHTA, 2013, Ting, 1997, p. 313).

From Ting’s (1997) study, we find interesting the fact that he includes ‘skill utilisation’, ‘relationships with co-workers and supervisors’ and ‘employee motivation’ as three important aspects related to job satisfaction. We we have encountered that these same factors are included in studies which discuss human resource allocation (Eskerod, 1998, pp. 126-127, Hendriks et al., 1999, p. 182, Horng, 2006, Moreno-Díaz et al. 2001, p. 174). The link encountered in this specific elements highlights the need for us to get a deeper understanding about how these particular aspects can contribute to a proper human resource allocation process and consequently foster employee satisfaction.

In a different study, Pizam & Neumann (1988, p. 99) identified the effects of task characteristics as indicators of job satisfaction for employees in the hospitality sector. Similarly, to Ting (1997, p. 313), they found that task characteristics strongly determine two aspects of job satisfaction: satisfaction with co-workers and satisfaction with supervisors. In
their conclusions they claim that the major determinants of these two aspects were ‘feedback received from supervisors and peers’ and ‘the experienced meaningfulness of the job’ (Pizam & Neumann, 1988, p. 99).

Pizam & Neumann’s (1988) reinforce Ting’s (1997, p. 315) claims about the importance of the relationships between employees, co-workers and supervisors and provide evidence of how the meaningfulness of the task that an employee performs directly affects his/her job satisfaction level. As previously mentioned when we discussed some models of human resource allocation, the nature of the job is often considered a crucial element during the staff allocation process in projects, and the fact that this aspect is also discussed in employee satisfaction literature guides us to assume that in order to achieve a high level of job satisfaction from the staff, the decision-maker involved in the human resource allocation process needs to take into consideration the relationships of the employee with his/her colleagues and managers and the relevance that the job will imply for the employee before assigning him/her to a project (Eskerod, 1998, pp. 126-127, Hendriks et al., 1999, p. 182, Horng, 2006, Moreno-Diaz et al. 2001, p. 174).

Duke & Sneed (1989, p. 1087) conducted another study that also supports this claim. They analysed 30 job characteristics form a universe of 32 managerial and 147 non-managerial employees of a large state university foodservice department. Among the 30 job characteristics they contemplated in their study, they specifically included six job satisfaction characteristics that were: autonomy, task identity, feedback, variety, dealing with others, and friendship opportunities. In their findings they concluded that there was a positive relationship between job characteristics and job satisfaction for both employees and supervisors (Duke & Sneed, 1989, p. 1087).

Furthermore, Duke & Sneed (1989, p. 1091) also found that even when there was no difference in job satisfaction by role (managerial vs. non-managerial) or demographic variables in their study, there was an exception when it came to the age for non-managerial employees. They highlighted that older, non-managerial employees tended to be more satisfied with their jobs than younger employees. This claim is also supported by Ting (1997, p. 316).

At ALLEGIION, little attention is paid to the age of the employees when they are assigned to a project, usually functional managers only look at their availability to do the job. If a demographic factor such as age can be deterministic in the job satisfaction of non-managerial employees, probably ALLEGIION should look at this element with more caution during its human resource allocation process.

Duke & Sneed (1989, p. 1087) described ‘task identity’ as the degree un which an employee feels identified with the nature of the job he/she is being requested to perform, this includes his/her proficiency to do the job and how comfortable is he/she doing it. ‘Dealing with others’ was referred to the personal relationships that the employee needs to maintain to perform his/her job.

In this context, ‘task identity’ and ‘dealing with others’ were two job characteristics that have similar interpretation to what Pizam & Neumann’s (1988) and Ting’s (1997) studied. It seems that most scholars take these factors into consideration to measure employee satisfaction and at the same time they are intrinsically correlated to human resource allocation (Pizam & Neumann, 1988, p. 99, Ting, 1997, p. 315, Duke & Sneed, 1989, p. 1087). These
findings help us to get a panoramic view of what we should look at when measuring the employee satisfaction levels at ALLEGION and how to confront those results to the current human resource allocation processes that are implemented inside the company’s projects.

2.17 Human Resource Allocation and Employee Satisfaction Theoretical Model

Now that we have discussed some of models and theories that have been developed in the subjects pertained to this thesis, we have gathered some relevant inputs that highlight the main factors considered in the creation of models dedicated to optimise human resource allocation processes and measure the job satisfaction level of the employees in a company.


For practical purposes, we have developed a model that entails the relationships we argue these factors sustain and the flow of the influence that we argue that occurs between human resource allocation and employee satisfaction, proposing the correlation of such factors as the root of such influence. This model is shown in figure 7.
In our model (figure 7), we exhibit the factors that we found share relevant relationship between human resource allocation and employee satisfaction. These four factors constitute the central part of the model and are displayed in four boxes that are linked by a surrounding connecting line. The two arrows pointing up and down in the model symbolise the relationship they have with the two major topics of our thesis. Additionally, the two arrows emerging from the box of ‘Human Resource Allocation Process’ that end up pointing to the box of ‘Employee Satisfaction Level’, symbolise the influence we believe exist between these two major concepts. This influence entails the core of the research question we have established at the beginning of our thesis and is therefore the main focus of our case study. The model we have developed will serve as the base of our practical method and will help us to support the discussions generated from our findings as well as our conclusions in the following chapters.

Figure 7. Human Resource Allocation Process & Employee Satisfaction influence factors.
3. SCIENTIFIC METHODOLOGY

The aim of this chapter is to identify and explain the philosophical stances that support our research and discuss how we perceive the nature of knowledge and how we as researchers gain knowledge.

3.1 Ontology

Ontology, or the origin of being, can be considered one of the most important focus of studies. This concept tries to find the answers to the question ‘what kind of things exist?’ that researchers and philosophers often deal with (Sharman et al., 2007, p. 9). Ontological tradition is connected with a group of concepts that recognise basic structures of the social environment and that are essential for the comprehension of society, organisations and small situations (Blaikie, 2010, p. 112). The philosophy that researchers use, comprehends previous understanding about how they perceive the world (Saunders et al., 2009, p. 108). Ontological assumptions are related with the fundamentals of collective reality. These understandings stress statements about what kind of phenomena do or can exist, and analyse the relation between them. (Blaikie, 2010, p. 92). Some academics claim that researchers may include their own prejudices and elements related to themselves into the research cycle and that in some occasions, this can affect how the information is interpreted (Corbin & Strauss, 2015, p. 22). Ontology can be studied in two main divisions objectivism and subjectivism, the former being also recognised as constructivism. Objectivism explains reality from the point of view that social organism exists in a reality, external to social factors. In the other hand, subjectivism entails that social phenomena are built from the view and results of social actors (Saunders et al., 2009, p. 110). For the purpose of this research our ontological position will be oriented to constructivism. The reason of our choice is supported by they believe that reality of the phenomenon we are studying is affected by external factors. We argue that the possible relation human resource allocation process and employee satisfaction at ALLEGEON can be impact by certain events, situations, and points of view from the reality where this is conceived.

3.2. Epistemology

Epistemology can be defined as ‘what can be considered as valid knowledge in a certain field’ (Saunders et al., 2009, p. 110). Could be also stated as how we gain knowledge. Epistemology has been divided for some academics in positivism, realism, interpretivism and pragmatism (Saunders et al., 2009, p. 116). Positivism can be considered the traditional framework of epistemology and it is closely related to natural sciences. Researchers that choose to use this trend as epistemology focus in work with observable social reality, positivism claim that only data that can be observed can lead the research to the generation of credible data. Realism is specifically related to scientific studies; it can be described as what our senses perceive as a maximum true. It is considered to be very similar to positivism. Realism can be also divided in different categories; two of them are direct realism and critical realism. The first one conceptualises that what the individual sees is what is the truth. Critical realism debates that some concepts can be images of the reality and not the real objects specifically. (Saunders et al., 2009, p. 115)

Many scholars claim that the researcher will always be part of the research itself. Moreover, interpretivism argues that the researcher needs to identify differences among human parts and social actors.
The main importance for researchers working under interpretivism environments is that the researcher has to adopt an empathetic stance. Researchers are requested to enter the social environment and comprehend their environment. (Saunders et al., 2009, p. 116). Empathy can be defined as the ability to share and understand different states of mind or emotion. It is frequently explained with the metaphor of putting oneself into someone else shoes (Ioannidou & Konstantikaki, 2008, p. 118). A strong trend highlights that interpretivism is very appropriate in business management oriented research, especially for the fields of human resource management (Saunders et al., 2009, p. 118). In the other hand, a balance between perspectives can be found on pragmatism, which is a different branch of the epistemology. Academics stress the importance of the research question during the study process. Some academics explain that if the research question does not present a strong tendency to positivism or interpretivism, can be conclude that the philosophical stance will fall under pragmatism epistemological division (Saunders et al., 2009, p. 118).

In a broad sense all researchers could be considered as part of the constructivist world if we consider the belief that human mind is constantly contributing to the creation of knowledge. Constructivism means that individuals do not discover knowledge in the same amount as they construct knowledge. Constructivism or interpretivism strongly claims that to comprehend the world reality we need to first interpret it (Schwandt, 1998, p. 237).

We believe that the world is affected by external factors, especially when talking about business management scenarios. ALLEGION, the organisation where we aim to focus our research, operates in a global environment and is integrated by more than 8,500 employees sharing stakeholders among different manufacturing plants (ALLEGION, 2016). Taking these characteristics into account, we have decided to follow an interpretivism school, where us as researchers will be required to understand the environment where our main stakeholders operates, and are affected by internal and external factors.

3.3 Research Approach

Frequently, the concept of ‘theory’ can be defined as an answer for questions that researchers present, or something that can be developed after data collection and data analysis (Bryman & Bell, 2015, p 23). Academics argue that more than a set of skills, research can be defined as the way researchers think about a specific phenomenon, analysing various aspects of their daily professional work (Kumar, 2011, p. 2).

Three different research approaches are widely recognised in the academic field, these are known as deductive, inductive and abductive approach. The deductive approach is commonly associated with natural sciences as it is said to facilitate the construction of cause-effect connections (Saunders et al., 2009 p. 126).

In the deductive approach, researchers use what they know about certain area and their expertise to deduce a hypothesis that later is subject to empirical testing (Bryman & Bell, 2015, p. 23). Deductive theory can be distinguished because it easily demonstrates the relation between theory and research. For the process of gathering data on deductive research, theory and hypotheses are leading the research process (Bryman & Bell, 2015, p. 23). The deductive process appears to be closely ruled for a very formal structure, where sequences of steps are already established. Nevertheless, new theoretical findings may be published after the research process finished, and important information for new theory can appear just after data has been collected (Bryman & Bell, 2015, p. 24). Deductive approach can be developed
through a list of steps which are: building a hypothesis, translating the hypothesis into operational terms, the testing phase and finally, the analysis outcomes which includes the modification of the initial theory if it is required (Saunders et al., 2009, p. 125) One of the most important differences between deductive and inductive research is that deductive research tries to explain and identify the relationship among two or more variables while deductive approach seeks to generate replication under a structured methodology (Saunders et al., 2009 p. 125). Lastly but not less important, deductive research demands to apply the element of generalisation for which researchers need to select a proper number of qualified samples to apply statistical generalisation (Saunders et al., 2009, p. 125).

Some academics believe that the deduction branch uses a very strict methodology, as an argument for this statement Saunders et al., (2009, p. 125) claims that induction branch gained many academic sympathisers that support the idea that deduction could be a limitation to find innovative solutions of the phenomena to be study. Induction approach appeared around the 20th century hand by hand with social science research (Saunders et al., 2009, p. 126). While deductive approach is commonly related to quantitative research, the inductive approach is typically related qualitative research. It is often believed by mistake that qualitative approach has as an objective to develop theory, however, it has to be noticed that qualitative research not always generates theory but reinforces qualitative investigations instead (Bryman & Bell, 2015, p. 24). In contrast with deductive research, inductive research considers the context, and the relation between researcher and study. Induction approach gives importance to external factor that may influence the final results of the study (Saunders et al., 2009, p.126). Even though induction could fulfil some gaps that deduction was not able to answer. Induction approach still has some blank spaces along the research process. The abductive approach came as a solution to solve limitations from the previous approaches – deductive and inductive–, similarly to the inductive and abductive approach; abduction is used to generate logical assumptions about the construction of theory of the world’s reality. For deductive researchers, finding the correct theory could be very difficult, the choice and requirements for a good theory election could be very vague. In a similar way, inductive researchers deal with a lack of credibility as consequence of the amount of empirical data needed it to create theory. (Saunders et al., 2009, p.126)

Abductive logic is used to fulfil the gaps that previous research tendencies have (Bryman & Bell, 2015, p.27). Abduction involves going back and forward into the world, empirical foundation, theoretical ideas and literature to build theory (Bryman & Bell, 2015, p. 27). Most literature emphasises that the concerns of a research cannot be seen only in white and black terms, hence deductive and inductive should be considered tendencies but not firm divisions (Bryman & Bell, 2015, p. 25).

For the purposes of our research we have decided to conduct our study taking an inductive approach. Our decision for this selection has been based in the nature of our research and the amount of resources that we have available to collect data. ALLEGION is a dynamic organisation formed by cross-functional departments all connected through the same objectives and philosophy, for this reason we argue that in order to arrive to a more accurate conclusion about the effect that human resource allocation has over the job satisfaction level of the employees working in the company, we must consider all the factors that can affect ALLEGION’s reality and the possible relation among them.
4. PRACTICAL METHOD

The purpose of this chapter is to provide a clear understanding on how we guided our research and the ethical considerations we considered for the delimitation our study. Our aim is to provide an integrated explanation of how we collected data and conducted its analysis.

4.1 Data Collection Method

Some authors have classified the data collection methods as quantitative and qualitative. In the business management area researchers have a common practice that is to differentiate their collection method between these two concepts. Academics have for long distinguished this division based on the type of data that the researcher is analysing, i.e., numeric and non-numeric data (Saunders et al., 2009, p. 151). Quantitative methods are mostly related with the procedures that create or use numerical data, while qualitative methods are directly associated with non-numerical data (Saunders et al., 2009, p. 151).

A research choice could be defined as the way a researcher chooses to combine techniques, refereeing to both qualitative and quantitative types; during the conduction of their studies, researchers may decide to follow the path of mono or multiple methods. Mono method is used when the research utilises a single source of data collection. Multiple methods on the other hand, are used when researches seek from more that one source of data. This last mentioned is most commonly used among business management research. (Saunders et al., 2009, p. 151)

The qualitative research data collection could be divided in research journal, source of data, interviews and observations (Corbin & Strauss, 2015, p. 37). Research journal refers to a deep follow up of the researcher journey that is developed along the process of the research study. It normally includes appointments, summaries of any discussion, the writing proposals, calendars, and any information regarding boards and relevant decisions made throughout the research timeline (Corbin & Strauss, 2015, p. 37).

The big contribution of the research journal is the opportunity it offers to the researcher to be aware in case of any heuristic or biases in his study. A research journal could be also a source of reinforcement to justify and support any decision made during the study research time. It is advisable for all researchers to make notes after any data collection session, otherwise important information could be neglected (Corbin & Strauss, 2015, p. 37).

Sometime important sources of data can be disregarded avoiding the researcher to collect information from different point of views (Corbin & Strauss, 2015, p. 37). An example of these sources could be observations, video, documents, drawings, diaries, group meetings, newspapers, historical documents, and biographies (Corbin & Strauss, 2015, p. 37). In order to provide richer results, researchers could complement interviews with observation (Corbin & Strauss, 2015, p. 37). It is advisable for researchers to receive proper training before starting the process of gathering information, this with the purpose of avoiding any disappointment in the final results. Is commonly argued that researchers could be unsatisfied if they are not able to gather all the information they need (Corbin & Strauss, 2015, p. 37).

We as researchers consider that the best data collection method for our study based in the availability we had in terms of time and resources is the interview method. We believe is of
great value the insights and knowledge that the interviewees can contribute to our study. Even when we count with the experience of one of our team members being an ex-employee of the organisation, we believe proceeding with interviews will enable us to consider a wider array of factors that could potentially influence the employee satisfaction level as a result of the human resource allocation process conducted in the company.

4.2 Research Interview

Interview is considered a methodological conversation between two or more people with a purpose previously established. The primary essence of the interview is about asking the correct questions and listening carefully to gather as much detailed information as possible (Saunders et al., 2009, p. 372).

There are three types of interviews: unstructured interviews, semi-structured interviews, and structured interview (Corbin & Strauss, 2015, p. 37). Another typology could be referred as standardised interview and non-standardised interview (Saunders et al., 2009, p. 374). For the objective of our interview we will embrace the first classification provided by Corbin & Strauss (2015).

Structured interviews utilise standardised questionnaires and answers that are usually pre-coded are also recognised as quantitative interviews (Saunders et al., 2009, p. 374). Structured interviews are conducted using an interview guide; each interview contains the same set of questions (Corbin & Strauss, 2015, p. 39). Academics suggest that as part of the interaction between researchers and respondents, researchers should read the questions exactly as they appear on the format and in the same tone.

Some academics believe that structured interviews can provide consistence and stability, preventing the researcher from the possibility to make any adjustment during the data collection based on previous interviews feedback and potential improvements. The important disadvantages about structured interviews are that they do not provide flexibility to the researcher in terms of the data collection process which ultimately difficult the construction of theories. (Corbin & Strauss, 2015, p. 39).

4.3 Semi-Structured Interview

When a semi-structured interview is conducted, the researcher has a list of possible subjects and most of time some key questions to be covered, in this type of interview the order of the questions is random (Saunders et al., 2009, p. 374).

Some researchers prefer this type of interview because it can balance consistencies in the questions and provides flexibility on how and when to use certain questions. In a semi-structured interview participants are free to include any additional information they could consider relevant for the topic discussed. With this kind of interview, researchers also can freely add additional questions during the interview process to enrich the data obtained (Corbin & Strauss, 2015, p. 39). One of the disadvantages of this type of interview is that the questions can change very easily from interview to interview, causing in some occasions that the main problematic can not be properly or fully addressed (Corbin & Strauss, 2015, p. 39).
4.4 Unstructured Interviews

Unstructured interviews are characterised by its informality. This kind of interview can be used when the researchers aim to explore in depth a subject of study. Contrarily to structured interviews, in the unstructured interviews there is not an interview guide. The interviewee therefore has the chance to express his/her previous experiences, events, and point of views related to the specific subject. Due to these characteristics, some scholars called unstructured interview also as ‘focused interview’ (Saunders et al., 2009, p. 375). Some authors claim that unstructured interviews can provide the richest source of data for theory building as they provide the researchers with the ability to complement future interviews as a result of the information gathered throughout the interviewing process (Corbin & Strauss, 2015, p. 39).

4.5 Observation

Observation could be divided into participant observation and structured observation. Participate observation is mostly associated with qualitative research and most of the time is used in anthropology fields. Structured observation is connected to quantitative sciences, and is used to measure how often an action is conducted. (Saunders et al., 2009, p. 340)

4.6 Unstructured interviews as data collection method for our study

The workload requirements at ALLEGION demands the organisation to be integrated by professionals from different countries and levels of expertise. This background offers a different perspective of how reality is conceived. After a deep analysis and discussion, we disregarded the use of a structured interview because this can bring some restrictions to our research process. We believe the candidates we have selected could feel limited in their answers hence decreasing the richness of the information we could potentially obtain from them during the interviews. Additionally, we did not consider the use of unstructured interviews because we want to have an open the door to additional data that might arise from the conversation with the respondents. We believe this flexibility will allow us to keep the path we have traced for our research. As a result of these rationales, we have decided to use the semi-structured interview, which will enable us to get a balance between the structured interview and the unstructured interview, hence obtaining the advantages from both data collection methods and offering to our participants more freedom to discuss any additional element that we might have neglected at the beginning of our case-study.

4.7 Access Negotiation as researchers.

Most of the researchers need to deal with several obstacles and constraints to develop a high-quality research. The first obstacle is commonly related to the access to private information and the possibility to establish contact with the subject of the research. Some authors argue that the source of knowledge for a research will intrinsically depend on the nature of the research topics and goals. (Saunders et al., 2009, p.170)

Selecting a company where one of the researcher had previous worked as an object of study can prove to be advantageous and disadvantageous. One of the main advantages is the reduction in the level of difficulty that researchers face during the negotiation process to access to the company. Is important to note that even though this can be perceived as a
positive element during the research, some other negotiation issues could emerge related to the the cognitive access generated by the previous status or image that preceded the researchers. (Saunders et al., 2009, p. 173)

We believe that the previous experience from one of us (researchers) as an ex-employee of ALLEGION, improved the credibility of our study, helping in the access to the company and increasing level of acceptance and cooperation that we received from the people contacted. This factor ultimately facilitated our research process. During this negotiation process we took care to address the concerns related to the handling of the information collected and were meticulous at generating an environment of based in trust and mutual confidence with the interviewees. As a way to achieve this, we explained in detail the process we were following during the research, this included elaborating about the usage we were going to give to the information gathered after the interview and the process we would follow to make our transcripts.

Furthermore, we made use of existing contacts in the company that could offer evidence of the the reputation and past behaviour of the one of us who was working at the company. This helped us to provide valid references for the people we were contacting (Saunders et al., 2009, p. 176).

During the process of searching for potentials interviewees, some participants refer us with other employees to participate in the study; this was possible in great part due to the relationship developed with the respondents during our conversations in the initial negotiations and contact emails, which at the end led us to generate a chain of potential participants for the implementation of our interviews.

Saunders et al. (2009), describe the possible factors that can trigger the rejection of access to organisations or individuals. One of these factor is for example to underestimate the value generated by the relationship between the research and the organisation. As a prevention measure for this scenario, we involved ALLEGION since the beginning of the research with the aim of making the company aware of our research objectives and the possible results of the study. As researchers, we formally requested the company’s participation and involvement, explaining in full the framework of our research. (Saunders et al., 2009, p. 176)

Some authors argue that organisations could be cautious about the topic of the research because it may represent a sensitive subject or because the information collected upon the investigation may be confidential. In order to build a solid relationship of trust between the organisation and us as researchers, we established contact with ALLEGION following their governance structure which started with the human resources department and subsequently escalating to managers of different functional areas that could provide us with different perspectives (Saunders et al, 2009, p. 170).

It is argued by some scholars that the perception a company may have about the researchers can affect the access to the organisation (Saunders et al., 2009, p. 172). One of the advantages of having an ex-employee of ALLEGION in our research team was the previous knowledge we had about the inside way of working in the organisation. This, as previously mentioned, added support to the level of trust and the willingness of the respondents to participate in the study while conducting the interviews.

Using existing contacts depends mostly on the research strategy use to select a sample and depends on the objective previously established. Some academics claim that the use of contacts already made in the past can positively affect the study when the research strategy
falls under the options of case-study, action research and ethnographic research strategy. (Saunders et al, 2009, p. 170)

Our case study will be based on the organisation ALLEGION. ALLEGION, as previously commented in earlier chapters of this thesis, is an organisation devoted to innovate by developing new product introduction process among an extended variety of safety products. The company is one of the biggest organisations manufacturing security items in the United States and Mexico, owns over 25 different brands and have a presence in around 130 countries. It’s working force is accounted for nearly 8,500 employees divided around different functional areas (ALLEGION, 2015). The motivation behind our choice to make our study about this company, is based on the amount of projects that ALLEGION implements each year and the number of employees the company uses to operate their projects. Additionally, one of us counts with previous experience as employee of the company, which we believe, will increment the level of communication and enhance the potential inclusion of knowledge from several areas along the organisation to our study.

In summary, we believe the project-based environment of ALLEGION as a company and the dynamics of its personnel will provide a rich source of data to our study and will help us to draw meaningful conclusions about how the human resource allocation process carried out in the company influences the satisfaction of its employees. Hopefully this will aid to improve the processes of the decision-makers leading the projects in the company and bring positive changes to its general operations.

4.8 Ethical Considerations

All studies should follow rules when the process of the research begins. One of the first elements to take into consideration is that the research population should not be in risk of embarrassment, harm or any additional physical risk (Saunders et al., 2009, p. 170). Dinner & Crandall stress three areas that all researchers should consider during the research process: lack of informed consent, invasion of privacy, and the possibility of deception (Dinner & Crandall, 1978, p. 19).

Harm can be classified as physical harm, harm to participants, loss of self-esteem, stress and the force of participants to perform actions that can generate feelings of guilt (Dinner & Crandall, 1978, p. 19). Bryman & Bell, (2015, p. 136) argue that researchers aiming to acquire approval for their research, should take into consideration any potential or emotional possibility of harm during the research process. Following these directions, we can claim that none of the respondents suffered risk or any sort of physical harm during the course of our study as we took all preventive measurements to do so. Additionally, the place and time of the interviews were scheduled based on the best convenient times for the participants in order to avoid any sort of inconvenient in their personal agendas.

Evading a lack of consent could be achieved by providing the participants with as much information as possible. This promotes a fair decision for the potential respondent who is participating in the study (Bryman & Bell, 2015, p. 136). As the researchers, we can confirm that all individual respondents were informed about the purposes of our research. They were explained in detail where the results of the interview will be published and how those results were going to be disclosed.

During our interviews, the option to remain in anonymity was given to all respondents in order to improve the trust with the interviewer. We got that 8 out of 9 participants agreed to appear with full names, hence we decided to exclude the relation between respondents and
the research to prevent any future action against any of the employees that participated during the interview.

Deception could be exemplified when researchers present their work, as something is not completely, or partially true. Some researchers may use deception in order to manipulate the understanding of participants, and as result they feel more comfortable about the purpose of the research (Bryman & Bell, 2015, p. 137). As a measurement to avoid deception in our study, a general explanation was provided to all the participants, more elaborated details were revealed to managers and key contacts about the study however, every participant was aware of our research objectives, the role of the interviews during the research process and the future stages we were going to perform after the interviews were completed.

4.9 Conducting the Interviews and the Sample Selection

Some researchers have difficulties finding the proper amount of respondents that validate the size of the sample. During the process of the research sometimes it is possible to gather information from the entire population, however, this not always can be generalized as the best practice (Saunders et al., 2009, p. 212). The population can be described as the universe of units from where the sample is taken (Bryman & Bell, 2015, p. 187). There are two most commonly use sampling approaches: probability sampling that is conducted when a sample is selected randomly out of the population were all the population poses the same amount of opportunities to be selected and non-probability sampling that is when the sample is not randomly selected (Bryman & Bell, 2015, p. 187). We have decided to use the non-probability sampling because we wanted to preselect the employees that have had experience working on projects already. We believe this sampling method will enhance the contributions that the participants of the interviews can provide to our research. ALLEGION is an organisation located in the north of Mexico so the distance existing between the researcher (us) and Sweden prevented us from conducting our interviews face to face. The best option for us as researchers was to complete interviews by phone using Skype technologies, dialling to land and mobile phones and recording our interviews after the respondent’s approval. The schedule of the interviews was managed according to our respondent’s best convenience with the purpose of obtaining the richest outcome after each interview. A brief explanation was given to the participants at the beginning of the interviews to provide general understanding of the purposes of our study. In order to discuss the answers from participants later during the analysis process, both of us as researchers were present during the interview sessions. We decided to divide the number of interviewees between the two of us so we both could get the experience and proper understanding of the interviewing process. Even though only one of us was the one leading the interview during each session, the other one was making notes and recording the conversation.

The interviewees that participated in our study included stakeholders in the organisation such as functional managerial, project managers and also team members. This decision was made because we wanted to obtain a complete perspective on the resource allocation method carried out in the company. From one side we would have the insights coming from the decision makers, and in the other side we obtain the perspective of project managers dealing with the consequences of the managers’ decisions and the team members affected by them. We limited our selection criteria to participants who were working actively in projects across ALLEGION. A sample size of 9 respondents was take out of 100 indirect employees currently working inside ALLEGION were 40 per cent was only dedicated to projects.
Additionally, to this, 3 out of 5 project managers currently working inside the organisation were available to participate the interview process during our research. 5 employees out of 40 currently working as team members inside the organizations and one out of two managers currently involve on active projects joined our interviewing sessions representing the managerial point of view during the study.

In Table 1 we disclose a list of the participants who took place in our study stating their position with its respective abbreviation, the duration of each interview, and the total population related to the respondent’s job position.

<table>
<thead>
<tr>
<th>Respondent and abbreviations</th>
<th>Position</th>
<th>Duration</th>
<th>Total population by hierarchical level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent1 (M1)</td>
<td>Manager</td>
<td>39 minutes</td>
<td>2</td>
</tr>
<tr>
<td>Respondent2 (TM1)</td>
<td>Team member</td>
<td>28 minutes</td>
<td>40</td>
</tr>
<tr>
<td>Respondent3 (PM1)</td>
<td>Project manager</td>
<td>59 minutes</td>
<td>5</td>
</tr>
<tr>
<td>Respondent4 (PM2)</td>
<td>Project manager</td>
<td>35 minutes</td>
<td>5</td>
</tr>
<tr>
<td>Respondent5 (TM2)</td>
<td>Team member</td>
<td>39 minutes</td>
<td>40</td>
</tr>
<tr>
<td>Respondent6 (TM3)</td>
<td>Team member</td>
<td>20 minutes</td>
<td>40</td>
</tr>
<tr>
<td>Respondent7 (TM4)</td>
<td>Team member</td>
<td>22 minutes</td>
<td>40</td>
</tr>
<tr>
<td>Respondent8 (PM3)</td>
<td>Project manager</td>
<td>25 minutes</td>
<td>5</td>
</tr>
<tr>
<td>Respondent9 (TM5)</td>
<td>Team member</td>
<td>35 minutes</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 1: Respondent’s relation

4.10 Truth Criteria

Business research must follow some criteria in order to be considered of good quality. Scholars argue that the following elements must be taken into consideration to achieve a good quality standard: reliability, replication and validity (Bryman & Bell, 2015, p. 48). Reliability can be defined as the ability of the researcher to repeat his/her results, and is mostly associated with quantitative research. Replication on the other hand, refers to the degree in which a researcher can replicate the findings made by others to prove some theory. Subsequently, validity can be described as the ability of thesis research tool to validate that the upcoming results were expected base on the research design (Kumar, 2011, p. 184). Some authors consider validity as the most important element of what can be considered a good quality research as this is directly related with the level of integrity presented in the research conclusion (Bryman & Bell, 2015, p. 50).

Validity is divided in three main types: measurement validity, internal validity and ecological validity. Measurement validity is related most of the times with quantitative approach, and is
recognised as construct validity. The aim of this type of validity is to reflect the validity of the criteria (Bryman & Bell, 2015, p. 50). Internal validity can be associated with the term of causality and it refers to the validity represented on the relation between two variables (Bryman & Bell, 2015, p. 50). Lastly ecological validity could be defined as the ability of research finding to be apply in ordinary daily life settings. For example, life conditions, opinions, personal values (Bryman & Bell, 2015, p. 48).

Some academics argue that in the case of qualitative research, different criteria should be used. They argue that qualitative research uses more flexible instruments compare to quantitative research tools and as a consequence, using qualitative criteria to measure qualitative research can be very difficult because the implementation of standard steps sometimes is not possible. (Kumar, 2011, p. 184).

In a study made by Trochim & Donelly (2007, cited Kumar, 2011, p. 184), an alternative was provided. This alternative consists of four indicators to measure qualitative research validity in an adequate manner. Such indicators were divided into credibility, transferability, dependability and confirmability (See Figure 8).

<table>
<thead>
<tr>
<th>Traditional Criteria for Judging Quantitative Research</th>
<th>Alternative Criteria for Judging Qualitative Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal validity</td>
<td>Credibility</td>
</tr>
<tr>
<td>External validity</td>
<td>Transferability</td>
</tr>
<tr>
<td>Reliability</td>
<td>Dependability</td>
</tr>
<tr>
<td>Objectivity</td>
<td>Confirmability</td>
</tr>
</tbody>
</table>

Figure 8. Truth Criteria from Kumar
Source: Kumar, 2011, p. 184

The first indicator, credibility, can be related with the authenticity or credibility of the research results. This is due to the fact that most of the time in qualitative research processes a point of view, emotional reactions and people beliefs are taken into consideration. Academics believe that the participants in a qualitative research should be the best source of criticism to determine whether the final results of the study represent their true voice or not. (Kumar, 2011, p. 185)

Despite the fact that one of us as researchers was part of ALLEGIION’s project in the past, the ethical considerations stated in the literature were strictly followed trying to achieve the highest level of objectivity and taking into consideration the complete answers from all the respondents. We strongly believe that the best way to increment the level of credibility in our study is to base our results on the opinion of our respondents, for that reason we aim to adhere to what they share and debrief the information they give us later during the summarisation of that data. In this way, after producing the transcripts of our interviews, we will have the certainty that our interpretation of the data is the closest to the respondent’s perspective.

The selection of potential participants was build based on the work experience related to projects inside the organisation and the value of the potential contribution that potential respondents could provide to the research. We disregarded any personal relation between the researchers and the respondents, improving the level of the credibility in the final results of the research.

Transferability suggests the ability of the qualitative research results to be transferred to other
research on a different context. This second indicator could be difficult to achieve, but is possible to do if the researcher provides detailed description of the steps followed during the research. This facilitates any future follow up in that research and eases the duplication of the research process (Kumar, 2011, p. 185).

From the beginning of our research, we collected written information about all the process we conducted and the way we accessed to our contacts at ALLEGION. Furthermore, written information could be easily provided for any future research, in the case of the preference for a future researcher to use the already established steps on our research method.

Dependability could be a reminder of reliability; it is connected to the possibility of the research to be able to obtain the same results. In qualitative research, dependability is achievable if researchers develop a detailed record of the method for others to replicate and construct a proper lever of dependability. We argue that the overall result from our case-study can be generated again if any new research is conducted on the near future, however, changes in the context of the organisation may affect the results if the study is repeated after a long period of time.

Finally, confirmability is described as the ability of the research to be validated and supported by others. This is achieved when two or more researchers follow the same process (Kumar, 2011, p. 184). The inclusion of the perspectives of several stakeholders at the same time provides an objective insight on the real situation of ALLEGION. We as researchers aim to honour and respect the highest level of trust while the research is conducted and our aim is to communicate in the clearest way the opinion and experience from all the participants. We do this in order to develop a useful managerial recommendation and give to our research a more practical objective.
5. DATA DISPLAY AND ANALYSIS

Saunders et al., (2009, pp. 490-500) claim that in qualitative research, once that data has been collected it can be then processed usually following three different procedures: summarisation, categorisation and restructuring.

Summarising data involves condensing large amounts of text into fewer words. (Saunders et al., 2009, p. 491). As part of our practical method we have produced a transcript from each of the interviews that we have conducted with the employees of ALLEGIION and from those transcripts we have obtained some inputs that were repeated constantly during the interviews. These inputs are also referred by some authors as themes or categories that we aim to use as key points of our data (Saunders et al., 2009, pp. 491-492).

Categorisation is often described as a process which allows the researcher to fragment the data and recognise references that are recurrent across it. This process enables the drawing of conclusions and the further analysis of the data (Saunders et al., 2009, pp. 492-493).

By categorising the key points that we have obtained from our transcript summaries, we aim to not just synthetize the information obtained from the respondents but also to create a number of groupings that will hold meaningful relation among each other (Saunders et al., 2009, p. 492).

Finally, during the restructuring of our data, we have chosen to exhibit the categories we have encountered while collecting and summarising our data in the form of a matrix (See Table 2). Meta-matrices are an effective method to correlate different elements collected from a qualitative interview as they can easily represent the main elements of a qualitative research in a condensed way (Saunders et al., 2012, p. 564).

To develop our matrix, four different main categories were concentrated for each of the major subjects in our case study (Human Resource Allocation and Employee Satisfaction respectively). Each of these categories have at the same time a number of different sub-themes that were derived from the interviews we conducted.

The left side of the matrix involves the factors related to human resource allocation that the employees of ALLEGIION mentioned repeatedly during the interview. Similarly, the right side of the matrix, reflects the topics that were most mentioned by the employees in relation to job satisfaction questions.

Both sides of the matrix hold a close interrelation between each other, hence, they cannot be separated or studied independently in our research as we intend to discover the influence of one over the other.

The matrix shown in Table 2 is therefore the way we have chosen to exhibit the data we have collected and that we believe is relevant for the purpose of our study.
In the following sections we will examine in detail the contents of each category and sub-themes expressed in this matrix. Alongside, we will present and cite relevant responses from the respondents that will serve as a fundament later during the interpretation of the data.

5.1 Template Analysis as Data Analysis Method

According to Saunders et al., (2009, p.482), ‘the nature of qualitative data has implications for its analysis.’ There are different ways to analyse the data collected out of a quantitative research and researchers often use the method that most favour their study by contemplating different factors. Some of those factors can be the availability of resources, the particularities of the data collected—in terms of quantity and quality—and the kind of results that the research aims to deliver (Saunders et al., 2009, p. 482).

In a previous chapter of this thesis we have mentioned that we have decided to follow an inductive approach which consists in collecting data without examining it in order to assess themes that could potentially emerge out of it during the progress of our study (Saunders et al, 2009, p. 490). Saunders et al., (2009, p. 502) argues that most of inductive data analysis procedures often use a combination of deduction and induction, and that no qualitative study which follows an inductive approach is actually fully inductive. As researchers, we recognise that this factor is an important element to consider while analysing our data and for that reason we agree with the fact that any procedure we use as part of our inductive analysis will imply in part an extension of deductive approach.

Template analysis is a popular inductive method that researchers use to analyse qualitative data. This kind of analysis entails the development of a list of the codes or categories that represent the themes revealed from the data that has been collected, each category is then attached to a particular unit of data. This procedure allows the researchers to identify and explore themes, patterns and relationships across the data as well as to develop hierarchies.
that could potentially aid in the analytical process (Saunders et al., 2009, p. 507). At the beginning of this chapter, we have elaborated on how we have obtained the categories and codes to represent and disclose our data, and now we aim to use this same structure for analysing it.

Saunders et al., (2009, p. 502) claim that ‘template analysis combines a deductive and an inductive approach to qualitative analysis in the sense that codes can be predetermined and then amended or added to as data are collected and analysed’. This is exactly what we have done while constructing our matrix shown in Table 2, therefore we believe that template analysis is an appropriate method for analysing our data.

We also have decided to use this procedure because it will allow us to produce a more manageable and focused analysis, which consequently will lead us to obtain more substantial conclusions by looking at smaller rather than larger units of information (Saunders et al., 2009, p. 509).

5.2 Human Resource Allocation Matrix - Data Display

In this sub-section we will introduce a summary of the data collected corresponding to the human resource allocation matrix divided in five topics: project characteristics, personal qualifications, personal aspirations, group relationships and job motivations.

The data displayed in the following tables will be based in the coding described previously in Table 1 where each respondent had an abbreviation or code assigned to represent it across the data. These codes have the intention to help the reader to identify each of the respondent’s opinions or viewpoints in regard to the topics discussed during the interview (Saunders et al., 2009, pp. 509-511).

<table>
<thead>
<tr>
<th>PROJECT CHARACTERISTICS</th>
<th>M1</th>
<th>TM1</th>
<th>PM1</th>
<th>PM2</th>
<th>TM2</th>
<th>TM3</th>
<th>TM4</th>
<th>PM3</th>
<th>TM5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project requirements</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project objectives</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Project constrains</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workload</td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

Table 3. Project Characteristics – Human resource allocation.

Represented on the table number 3, it is demonstrated that four of the respondents commonly recognised the use of formal meetings where project requirement information is shared among the organisations, PM1 argued “The method of how we are administrating the projects is that each project has a category and based in that category we put the resources between the different areas”. Similarly, PM2 supports that idea when he mentioned: “we normally have a kick off meeting conducted by the project manager, where we explain a business case, and based on this, each functional manager assigns the resources that will work on the project”. Table 3 identifies the standardised practice among projects and employees from ALLEGION to communicate project requirements in order to allocate resources. As part of this data, we could identify that the method that each project manager use can be different. PM3 explains that a calculation is used depending on the load that every project manager has, he stated “every functional leader should be on the kick off meeting, we explain there how much time do we need for the sources in a specific project and to make sure they are going to have the right coverage”.

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On the same context PM2 argued “we as project managers provide the requirements of the project meaning by this we support by communicating project objectives and give advice on what type of resources should be involved in the project”. On the contrary, TM5 contradicted the common statement arguing that the initial meeting is not a standardised practice, he stated “many times there is no official meeting held, only few projects leaders are currently doing this”. Some of the functional managers claim that in order to do a proper resource allocation they consider the project requirements.

On table 3 we underline an important replication about the workload subject, most of the employees and managerial positions argue that resource allocation is based on workload rather then other criteria. One of the most important contributions to this part of the study is the voice of some employees arguing that resource allocation is most of the time based only on the workload element. PM3 clearly stated “My project assignment is based on time availability so they use the same chart I mentioned earlier...My manager basically assigns projects to me based on how much time I have available”. The assignment of projects is based on the time availability of the employees and at the same time this management is made by charts that can underline workload of employees among teams. PM3 commented: “The most common practice is that I will be assigned to a project when the first priority comes around if I am available, if I am not then somebody else will get that project”. In the other hand TM5 complemented that statement arguing that sometimes the workload is not equally distributed, he also commented that sometimes they can distribute the priorities among the team but this can not be achieve all the time. PM2 said that once the project has begun they distribute the assignation of human resources based on their availability. Most of the participants argued that satisfaction level related with overload was not considered. PM3 also declared that “satisfaction is not really taken into consideration...even though there might be certain resources that are over-allocated, the assigned time is even more that the time they really have available for do wherever they have to do, day by day”. TM4 complement this statement by declaring that most of the time managers do not consider satisfaction when resource allocation is completed. TM4 make a clear statement saying “I don’t think my manager consider all the time my level of satisfaction when he assigns projects, it is more related with the load of work that we have”.

Table 3 also demonstrate the importance that projects leaders and team members give to project constraints during the resource allocation process. Regarding to this point PM1 stated: “if we do not have resources available we go directly with each functional department and depending on the challenges of the project probably the new product that we are going to introduce requires people with some skills and those resources are not available or they did not exist in the plan, base on those characteristics we go with the head of the team and if the project requires it, then a hiring process starts”.

We found a clear tendency of managerial position to state that information about project content and project requirements are well communicated but on the contrary members of teams deny the standardize methods. The common argument among employees was that resource allocation is based on the load of the projects as a priority, rather than other aspects such as employee satisfaction.
PM2 explained that distributions among the organisations can be done through functional areas, he stated “I have an electronic background, most of the time that a new electronic project will be implement, I can be assigned to this type of project”. ALLEGION make assignment base on the skills developed by employees. Nevertheless, PM2 also stated “in the last years, electronic projects have had an amount increment, for this reason we divide projects based on workload instead of skills”. PM1 also explain that not all the time the resource allocation is correct, he argues “Sometimes the tools are not aligned to the company needs, that is a factor that we don not necessary take in consideration and sometimes it happens that we choose not the right people, we do not choose the right profile”. M1 complements this statement claiming that he does consider the personal qualifications only to a certain extent. He mainly focuses on the project requirements and project complexity when carrying out with his human resource allocation process. At the same time, he recognises that his decision to consider these aspects in ‘a limited way’ affects the performance of the people working in his teams and argues that in his experience, when an employee is not adequate for certain position a poor outcome can be expected. TM1 argued that the fact that project managers considered the skills and personal qualifications to assign staff to a certain project definitely contributes to obtain better performances.

When asked if project managers considered age and education, when team members were assigned to project TM1 answered that they were confident that these aspects were taken into consideration. Additionally, TM1 commented that previously he/she was working in a different project where the perception was that he/she was not utilising fully competences but because of a new position TM1 feel more comfortable about the proper use of all the resources. TM4 provides additional statement about the need of skills. She states “ALLEGION is a very dynamic organisation where the pressure of responsibilities can be very high, for these reasons the fully usage of skills must be considered”. On the other, hand TM2 clearly contradicts this statement when he explains that the project managers consider the skills and experience when they assign people of the projects and mentioned that age and education were considered in a much less extend as there is not many people from where to choose.

Table 4 also bring to attention the subject of the employee experience related to resource allocation. TM4 argue that some projects are allocated base in the product experience, she states, “some of the projects are assigned based on the nature of the project and the product”, projects are divided between commercial and residential. This is statement is reinforced by PM2 and TM5, both of them explain that most of the projects are based on the employee product experience. TM5 argue that experience can have both sides positive and negative; in one hand the employee experience can provide the team with solutions to solve the problems, additional to this new employee can provide fresh ideas about how to solve problems among the organisation.
Table 5.- Personal aspirations and career development – Human resource allocation.

The special characteristic of the table 5 is that most of the employees have strong opinion about professional plan and harmonic environments. The collected data demonstrates that respondents were willing to share wide opinions about the importance of developing programmes to enhance the importance of employee professional future. PM3 stated, “I’m going to say no, the professional growth it’s not considered when an employee is assigned to one the projects that I am leading”. TM5 and TM4 sustained that the development plan is not taken in consideration when resource allocation is made. As part of this argument TM4 said “I am not 100% sure if my boss considers my personal growth when resource allocation is made”. On the contrary, TM5 said that whenever is possible and the opportunities available are aligned to the person’s development plain in the company he takes into consideration this aspect. He believes that the development of an employee is important for his optimal performance and adds that in some occasions, specific tasks may be assigned purposely to a certain employee with the aim of developing his/her skills.

TM1, brought a more neutral argument about the procedures among ALLEGION, he commented “career development was not something that ALLEGION fosters in its employees but rather is something that each employee has to pursue and literally ask for in order to happen”. TM1 also commented that professional aspirations of growth were not considered when he was assigned to a new project.

TM1 believed this aspect should be something that ALLEGION should consider as a natural part of the human resource allocation process in projects. An important finding can be identified when considering PM3 and PM2’s comments where they also stated that in order to promote professional development they must ask for it. PM3 said, “If a project is part of my personal development or something that I want to do, I personally have to go to them and negotiate it”. This last statement was very strong.

Table 6. Relationships with managers and co-workers – Human resource allocation.

In the table 12, two elements of the relationship between resource allocation method and the dynamic among teams were identified, nevertheless only one respondent mentioned trust between employees and managers. TM5 said that for him motivation leads to trust building and that is something he always strives to achieve with the people working under his command.
Relationship among teams was found as a controversial subject. TM1, PM2, TM4, PM3 and TM5 argued that any consideration for resource allocation based on the dynamics that occur during projects among teams are considered sometimes when the resource allocations is happening, these opinions made some contrast to PM1 and TM2 statements. TM2, explained that it is believed that project managers actually took into consideration personal relationships with colleagues when resources were allocated to new projects. TM2 stated that project managers seek to conform the best possible team and create a friendly working environment, so this aspect was definitely important to accomplish with such an objective. On the contrary, PM3 minimize the importance of personal relationships. He stated that this element should not matter, even if team members do not have good relationships with any member of the project. Part of the job of team members is to put away obstacles that can prevent the team from achieving goals. Supporting this statement PM2 said “I barely consider the relationships when I am leading a project”. He explains that employees should be professional, and therefore perform at the level of quality required.

<table>
<thead>
<tr>
<th>MOTIVATIONS</th>
<th>M1</th>
<th>TM1</th>
<th>PM1</th>
<th>PM2</th>
<th>TM2</th>
<th>TM3</th>
<th>TM4</th>
<th>PM3</th>
<th>TM5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal drivers</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<td>X</td>
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<tr>
<td>Individual drivers</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 7. Motivations – Human resource allocation.

Along table 7, we identified whether motivations from employees were considered during the human resource allocation process. TM2 introduced the importance of awareness from managers to know personal motivations from employees and team members. TM2 mentioned “even if management teams are not completely aware of the employee motivations. Most of them are open to discuss personal issues”. TM1 argued that despite communication channels being open, project managers along the organisation are more focused on allocating their human resources based on skills level and expertise rather than personal motivations. Supporting this statement, we identified that most of the respondents declared that motivations were not taking into consideration when they were assigned to their tasks. PM3 stated, “considering motivations is not part of the system. My managers do not do it, and I personally do not pursue to know motivations of the team members that are part of my project”. PM2 complemented that declaration stating that “even if employee motivations are not taking in considerations they could be a good tool for the management of future projects”. TM5 emphasized that “motivation is not responsibility of the organisation itself. It should be the something personal”. Similarly to that, PM1 said “motivations should be developed by each individual, but main employee motivations should be one of the organisations goals”.

5.3 Employee Satisfaction Matrix - Data Display

In this sub-section we will introduce a summary of the data collected corresponding to the human resource allocation matrix divided in five topics: personal qualifications, personal aspirations, relationships with co-workers and managers and job motivations.

In the same way as in section 5.2, we will be using the codes previously introduced in Table 1 to identify the respondent’s opinions and viewpoints about the topics discussed during the interview.
According to table 8, two main aspects related to personal qualifications were mentioned as factors that contributed to increase the satisfaction of the employees. These aspects were: ‘skills utilization’, and ‘experience’. Most of the respondents that made reference to these two terms mostly talked about their feelings towards the project were they are currently working and the possibility they have to employ their personal abilities to perform a good job. Supporting this argument, we can cite TM1 who said ‘I was previously working in a different project where I felt I was not utilising fully my competences and for that reason I requested to be reassigned to another project (…) now at my current project I feel much happier and satisfied’.

TM3 also displayed similar opinions, saying that she was feeling satisfied with her job because she felt competent performing in this area. She commented ‘I feel very capable carrying out with the obligations in my position and that definitely causes a good impact in my satisfaction’.

Similarly, TM4 argued that the fact her experience was considered to meet project requirements was something that kept her satisfied, she commented ‘I think this (the fact that her experience is considered in the human resource allocation process) affects positively my satisfaction in the sense that I know my experience is being recognized and utilised in the best way possible, (…) that’s something I appreciate and applaud in my company’.

Considering their responses, it is possible to state that the three respondents feel satisfied with their jobs to some extent because they can either perform confidently in their projects or because they feel they are making significant contributions to their company. These arguments provide a good overview of the opinions that ALLEGION employees have.

Similarly, we encountered that some project managers have comparable perceptions of job satisfaction as a consequence of the correct utilisation of the staff qualifications. PM1 who is a project manager in the materials development area, supports this idea and commented ‘basically, one of the values of the company is to celebrate what you are and what you succeed at, so with this practice (referring to considering the skills of the employees in the human resource allocation process) we’re putting the satisfaction of the employee in a pretty good standpoint because we make them feel as part of the achievements of the company’.

Supporting this statement, TM5 who also is a PM said ‘people’s experience is very valuable for the company and we know how to reward a good trajectory, I think that’s what really influences the satisfaction in our people’.

During the interviews, there were also some contrasting points of view that led to interpret a lack of relationship between employee satisfaction and ‘skills utilisation’ or ‘experience’ as a consequence of the human resource allocation conducted at ALLEGION. One example was PM3 who is a project manager, he said: ‘we (as project managers) many times don’t have the time to consider many factors due to restrictions in time and resources, that’s why we cannot always consider skills or experience to select personnel (…), this should not affect the
satisfaction of the employees, they know what we expect from them and should enjoy their job (...), we trust they do their best to meet the requirement of the project’. M1 provided similar insights, he commented ‘I only consider skills or expertise when I have the time to do so and this usually never happens, (...) probably my decision is not the best but I don’t think this can affect in much the satisfaction of the people working in my projects, (...), when a person does not feel confident working in some task, he or she should simply say it’. In summary, most respondents agreed that skills utilisation was a relevant satisfaction driver and only two respondents provided contradictory statements.

<table>
<thead>
<tr>
<th>Personal aspirations</th>
<th>M1</th>
<th>TM1</th>
<th>PM1</th>
<th>PM2</th>
<th>TM2</th>
<th>TM3</th>
<th>TM4</th>
<th>PM3</th>
<th>TM5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career development</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 9. Personal aspirations – Employee satisfaction.

Table 9 shows that ‘career development’ was a popular concept discussed by all the respondents. During the interviews both, employees and project managers, made reference of this aspect as an important driver of job satisfaction and remarked how relevant it was for them that ALLEGION contemplated this factor as part of the human resource allocation process. M1, for instance, said ‘we [as project managers] try to consider the personal development of the people working in our teams when we request our staff for the projects, we know this in the long run will bring benefits that will reflect in their performance and satisfaction’. PM2 also commented ‘the responsibility of the project manager is to seek the development of his team (...) our projects are getting more complex and therefore we need people who can handle the pressure and dynamics of our environment (...), even when not all project managers actually follow this guideline, I believe career development should be encouraged in the employees as in my own experience, I can tell it brings satisfaction and the sensation that you’re growing and not just doing the same all the time’. Respondend3 who is also a project manager made a similar comment to PM2, he said: ‘most of the times it depends of the project manager if he or she is looking to promote their team members, I personally do, however sometimes is not our decision and we can only recommend people to be promoted or taken to a different area, (...) I am sure that when this process is correctly done, our employees can stay more satisfied in their roles and enthusiastic about their future in the company’.

Similarly, PM1 also made a positive reference to career development, he responded ‘that (referring to the consideration of career development as part of the human resource allocation process) actually empowers the satisfaction of the colleges. It goes exponentially when the people feel that they are part of the company (...).’

The statements made by these project managers clearly stressed that career development is an important factor to foster the satisfaction in their team members and linked its importance to the process of human resource allocation. They recognise that their points of view are not always shared among all the project managers working at ALLEGION, and that some project managers may not consider such factor as a relevant element.

Employees equally answered that their career plans and personal development was important for them when talking about satisfaction. In relation to this argument, TM1 commented
‘career development is not something that ALLEGION fosters in its employees but rather is something that each employee has to pursue and literally ask for in order for it to happen (...). I had to talk to my manager and request a promotion (...), I wanted to grow (...) they accepted and now I feel better. Even though I am happy with my current position, this situation makes me feel not completely satisfied. I guess that is because I had to fight for my promotion instead of receiving it in a natural process.’

TM4 backed this opinion during her interview she, said ‘I am not 100% sure if he (her project manager) considers my personal growth all the time, more often his decision is based in workload and milestones (...), I feel that if my development was considered as part of the corporate plan I would feel more satisfied with my job’.

TM3, on the other hand, had a different experience, she believes that career development is actually considered by ALLEGION in a normal basis during the human resource allocation process. During her interview she commented ‘I’m sure my personal career aspirations were considered when I was assigned to my current project. My project manager knew that I wanted to grow in the organisation and for this reason I was given the opportunity to scale from a previous position to my current role, (...), this fact certainly impacted positively my satisfaction at my workplace (...). I appreciate that my manager looks at my career goals and preferences (...), I’m happy knowing that my opinion counts when it comes to the assignation of my tasks and projects.’

We can conclude as part of this analysis, that career development is a factor considered as a direct influencer to employee satisfaction by the majority of respondents. This factor also demonstrates a positive association to human resource allocation process, making it a relevant insight for our thesis.

<table>
<thead>
<tr>
<th>Relationships with co-workers and managers</th>
<th>M1</th>
<th>TM1</th>
<th>PM1</th>
<th>PM2</th>
<th>TM2</th>
<th>TM3</th>
<th>TM4</th>
<th>PM3</th>
<th>TM5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colleagues relationships</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
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<tr>
<td>Manager relationships</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>

Table 10. Relationships with co-workers and managers— Employee satisfaction.

The individual relationships of the employees with colleagues and managers was highlighted in table 10 as a relevant aspect that affects the satisfaction of the employees and their performance. Some of the respondents said that they would feel more satisfied in their current positions if they were working with the right people and under the right command. TM3 for instance said ‘I’m currently satisfied working with my colleagues (...), I believe my project manager actually took into consideration my personal relationships when I was allocated to this project. In my opinion, he (her project manager) was seeking to conform the best possible team and create a friendly working environment (...). My relationship with my colleagues and managers could affect at some extent my performance in the job if there was some sort of problem, however, as I said my current work environment is quite healthy and no conflicts have arisen from my personal interactions in the team’.

From a different perspective but sharing the essence of the previous opinion, TM4 answered ‘the organisation expects from us to behave in the most professional way without considering our personal relationships (...), that is not a priority for them (referring to the relationships
with her co-workers and managers), however, sometimes, they (referring to the decision-makers in the human resource allocation process) may try to promote a better work environment (...), I of course think that this factor (the relation with co-workers and managers) is important for an employee to feel satisfied.’

Talking from the point of view of a project manager, PM3 commented ‘it definitely does affects both of them (referring to employee satisfaction and performance), I mean, if one person does not have good relationships (...) that reflects problems in their performance and the way that person will feel in their job. So I think it does affect.’

Similarly, M1 said ‘I think that the constellation of a group is crucial to achieve satisfaction (...) people with different backgrounds can complement to each other and mixing the right people with the right skills can bring the best results for the team performance (...), I try to consider this element whenever I’m allocating staff to my projects (...), I constantly seek to promote a harmonic environment among my team members’.

Supporting also this point of view, PM1 answered ‘that (referring to the relationships with colleagues and managers) is something that really impacts satisfaction (...) when they (the employees) feel that the environment at work is healthy, the people enjoy working there so I always take that into consideration’.

Although most of the respondents agreed that job satisfaction can be affected by the personal relationships with co-workers and managers, some of them also stressed that this aspect should not be considered as determinant factor to measure satisfaction or work performance. They commented that they preferred to handle personal relationships out of the work environment and that conflicts and possible arguments with colleagues and bosses should not impact in their performance or way or working. As reference to this argument, TM1 said ‘I would certainly like to do so (referring to having the possibility of working only with people she likes) and that would make me feel more comfortable at my work place, however, my performance would not be affected negatively if I don’t have that possibility (...) I’m able to work equally well with compatible an incompatible people regardless of the situation (...) the relation with my colleagues and managers are not elements that I would consider to measure my satisfaction (...) when a problem arises in my work environment there is always a way to solve it through communication and the right channels.’

PM2, also said ‘I don’t see a straight relationship in these aspects (referring to job satisfaction as a consequence of individual relationships of employees with co-workers and managers), sometimes you can do something about it and sometimes you just can’t, it depends on the professionalism that that each person has. I personally try to get along with everybody but that’s not always possible (...), in my opinion is better to keep these issues aside of your job’.

Even when PM3 say that he believed satisfaction can be affected by the personal relationships at the workplace, he also stated a similar point of view to PM2 in regards to work performance, he commented ‘my professional relationships should not matter in my performance, even if you don’t have a good relationship with somebody, is not really valid for not doing a good job (...), my duty is to put that aside on the way’.

In the same way, TM5 answered ‘maybe my relationships can increase o decrease my satisfaction but if I have a problem with someone I still need to continue my job and I will do whatever I need to perform appropriately, that’s something I consider being professional’.

As a conclusion to this topic, we found that personal relationships in the work environment have a direct influence on job satisfaction according to the comments obtained from the respondents. Also we could determine that the respondents often think that their personal relationships with co-workers and managers should not be an influential factor in their job performance which poses a question mark in the overall perception of this aspect as part of the human resource allocation process of the company.
Table 11. Motivations – Employee satisfaction.

Employee motivations in table 11 were mentioned as a relevant element during the interview. The majority of the respondents provided positive responses when linking motivation and employee satisfaction in the questions. Although some of them said their motivations were not part of the human resource allocation process, they still remarked their importance in the generation of job satisfaction. Additionally, we noticed that most of the project managers are not aware of the motivations of their staff but interestingly they consider the motivations important to keep their team members content with their jobs. In regards to this argument, PM2 commented ‘I think it would be nice for project managers to be aware of the motivations in the team, I’m sure if we could use them to make better decisions during our human resource allocation process we would obtain better results and would get people to respond more actively to their activities (…), up until now I seek to first meet the requirements of the project, however, I think identifying the drivers in my people would aid to make them feel more comfortable’.

From the perspective of another project manager, M1 said ‘I tried to learn what are the drivers of the people working with me, however, that is not always something easy to find out (…), I respect the privacy of my team members, and for this reason, I avoid asking some questions that might compromise the employee-manager relationship (…) when allocating staff to projects, functional managers usually consider the motivation of the team members if they are aware of them, this allow us as project managers to offer the staff a balance in their personal and work life (…) I believe motivations can be root of satisfaction (…) and that is something I encourage’.

TM5 made a relation between employee motivations and the work-personal balance, which he thinks is also a contributor of satisfaction in the workplace, he commented ‘I think the employees should have balanced motivations in their jobs and personal matters (…) I don’t mind coming to work on Saturday and that’s fine because I know I still can spend time with my family, but I know other people who don’t feel the same, their motivations are different and sometimes they limit their own satisfaction (…) when they are assigned to tasks that do not fit their motivations they might feel frustrated and obviously that will result in an unhappy employee’.

In a similar way, PM1 said ‘when people is motivated there is an increase in their personal life and work balance, as a result they work better and become a better asset for the company (…), in my opinion, motivation is an important factor to increase satisfaction (…) I think the job of a project manager should always be trying to keep his team motivated’.

As an employee of ALLEGION, TM4 thinks that motivations are important but they can be subjective, in her opinion, an employee should be motivated regardless of the work conditions, she thinks this is a personal commitment. During the interview she commented ‘for me, my satisfaction is connected to my job motivations but that is not something that is dependant of my project manager or work environment, I motivate myself and work hard for my own reasons (…) managers should focus in providing new ways to keep the employees motivated rather than trying to determine what are their personal drivers, (…) if for instance,
I was offered a raise, that would definitely impact my motivation at work and would make me feel more satisfied because I would know my efforts are being really noticed’.

TM1 believes that her project managers unknown her motivations to work and that this factor is not considered when they take the decisions to allocate staff to their projects. She comments that the selection factors they consider are more linked to skills and requirements of the position and added that such decision does not impact negatively her individual performance, however, it does impact her satisfaction. During the interview she said ‘projects managers would add an extra value for the company if they were aware of the motivations of the employees, I would appreciate if my motivations were considered when I was assigned to a new project or with new tasks (...) in my opinion, this consideration will also contribute to develop a career path for the workers and encourage their professional development, which as I said before, is something I think can increase satisfaction’.

TM3, also said that her project manager may not know what are her motivations at work but that she did not considered that as a very important issue. She commented ‘if he (her project manager) doesn’t know my motivations I can understand. Every person has different reasons to go to work (...)’. Additionally, she said ‘I appreciate when my manager approaches me to give me feedback or recognises my achievements (...) that motivates me to work better and in some way influence my perception of my work’.

After analysing all the relevant comments that we received from the respondents we can conclude that motivations are definitely a job satisfaction driver and that most of the project managers and decision-makers involved in the human resource allocation process are unaware of the motivations of the team members. This to some extent, influences the satisfaction level of the employees working at ALLEGION.
After gathering all the comments and arguments expressed by the employees and project managers interviewed at ALLEGION, we have obtained a good input that we believe reflects the influence that the human resource allocation process has over the employee satisfaction in the company. In the following section of this chapter we will mention our most relevant findings and will compare them to the theory we have previously examined in our literature review chapter. Our main goal is to find possible relations between our findings and the theory that allow us to construct valid conclusions and give response to our research question. Our data analysis will be based on the matrix we have previously exhibited in point 5.1 and therefore will be divided into two sections: one corresponding to human resource allocation matrix analysis and one corresponding to employee satisfaction matrix analysis.

6.1 Human Resource Allocation Matrix Discussion

In this sub-section we will present our analysis corresponding to the human resource allocation matrix divided in five topics: project characteristics, personal qualifications, personal aspirations, group relationships and job motivations.

6.1.1 Discussion on Project Characteristics from the human resource allocation perspective

The importance of project characteristic display is well recognised among several departments of ALLEGION. In common understanding with the literature reviewed in previous chapters, we were able to identify the significance of the resource allocation management taking into consideration the project characteristics as a first step. In 1994 Hendriks (1999, p. 182) presented the ‘rough-cut-project-and-portfolio-planning’ model, where resource allocation was calculated for a four-months inventory based on resource claim and resource offer. Hendriks (1999, p. 182) believed that that this model could provide a clear idea of the project requirements formed by the percentage of workmen demands by every quarter. The recommendation of developing long term, medium term, and short term allocation plans is however not followed by ALLEGION, where the most common practice is to only take into consideration a short and medium-term plan. This, to our perspective, affects the overall employee satisfaction level as a result of the lack of alignment between the long-term career plan of the employees and the resource allocation method they are subjected to.

During the interviews ALLEGION’s project managers and stakeholders argued about the importance of kick-off meetings where the project characteristics and requirements have to be delivered to each functional manager involved in the project. We have learned from the information gathered, that ALLEGION projects are divided in different categories and based on this division the resource allocation is conducted. Nevertheless, some of the respondents argue that this practice was not standardised among the project portfolio disregarding in this way the model of Hendricks (1999) model where a human resource negotiation is a claim and offer of resources between project managers and functional managers. The absence of the negotiation process brings to our attention how functional managers and projects managers are leading the resource allocation process without having a general vision of the human resources requirements for the future.

Interview results demonstrate the concerns of some participants regarding the excess of capacity existing along the current portfolio. Literature chapters present the potential risk of overload among project teams and the possibility of the risk in cost increment by hiring
external human resources (Laslo & Goldberg, 2007, p 774).
At the same time, most of the literature was based on short-term resource allocation instead of long-term resource allocation. Hendricks et al. (1999) introduce a five elements model, including long-term resource allocation, medium-term resource allocation, and short-term resource allocation method. The staff from ALLEGION confirmed that decisions were only made on short term and medium term criteria. The yearly strategic plan only considers a general picture of the programs and main project portfolio elements disregarding the total among of workload and requirements. As a result, project requirements and resource, allocation loads are implemented without taking in consideration the possibility of emerging projects and extended coverage from actual programs.

A second perspective was examined by our theoretical chapter by Horng (2006), he proposed an alternative to the resource allocation method based the resource allocation on stages that were divided into milestones. This method provides the project managers with the flexibility to make decisions by phases instead of being concerned about long periods of time. ALLEGION follows similar practices and divides its process by stages. The main difference at the company with the theory abovementioned is that resources are not divided by stage but only by tasks, milestones, and datelines. Human resources are assigned from the beginning of the project and no adjustments are normally conducted. Changes or adjustments can only be introduced if an emergency or exception appears during the project period. Horng (2006) also includes the element of time inside the resource allocation formulation, he assures that project managers demand time for communication among team members. We argue that even when ALLEGION uses a resource allocation method based on stages and short and medium-term plans, the lack of standardising practices among resource allocation and the absence of a long-term plan considering the resources for the projects can easily increase the risk of overload and cost increment because of the hiring of additional staff. Moreover, the misunderstanding between project managers and functional managers inside ALLEGION can affect the possible performance outcomes among the organisation, having as collateral consequence the reduction on the employee satisfaction level.

6.1.2 Discussion on Personal Qualifications from the human resource allocation perspective

During our theoretical chapter, we highlighted the importance of project managers to consider employee skills and experience. Zhang’s (2010 p. VI-380) presented a model based on two-way choices that take into consideration qualities and skills of the staff and then aligned this with roles and position inside the organisations. Zhang (2010) lead an experiment with twelve employees and considering four different variables: experience, skills, and education. The result of this experiment provided managers the ability to recognise which employee was the best candidate for each position. As a result, of our interview, we found that a key element along the resource allocation process was the experience. We noticed a unified voice from managers, project managers and team members referring to the fact that most of the projects were assigned based on staff experience. ALLEGION is an organisation that offers a wide variety of products from residential to commercial environments and managers there conduct the resource allocation process based on product experience. Another point we identified along the data collection process was that most of the team members do not consider that the education element was taken into account when the resource allocation method was conducted. Project managers said that sometimes the education background of the employee and his/her skills are taken for granted.

According to our literature review studies demonstrate that the productivity of the most
productive employee could the productivity of the less productive employee (Kennedy, 1995, cited by Zhang, 2010 p. VI-380). Project managers explained that most of the time they make assumptions that human resources are qualified enough to participate in their projects, when in reality projects are distributed based on workload rather than personal qualifications. Based on this, we can argue that contrary to what was stated on the theoretical framework and what can be considered as a good resource allocation method – where the allocation of personnel requires a good identification and selection process to effectively allocate the right people to the right job, taken into account his/her individual skills, knowledge and experience to perform a specific activity (Zhang, 2010 p. VI-380) –, ALLEGION bases its resource allocation process on experience and resource availability rather than skills. This decision has as result negative feelings from the employees that can be traced back to the lack of a strategic plan implemented in the organisation. As Zhang (2010 p. VI-38) said, ‘organisations do not reach the position where they aim to be because of the lack of a scientific method’.

During the interviews, some project managers explained that at the beginning of the projects, they were able to provide some recommendations for the assignment of human resources, however, final decisions were taken only by functional managers limiting sometimes the project manager’s voices regarding the qualifications in the employees need it for the projects. Most of the respondents occupying a managerial position explained that the only resource available they had to ensure the possession of the proper skills in the team members was to communicate these requirements to the functional managers in case some activities were not accomplished in the adequate way and time, but this was rarely said at the beginning of the project.

6.1.3 Discussion on Personal Aspirations from the human resource allocation perspective

Personal aspiration has been an important subject inside the human resource research, scientific research demonstrates that the success or failure of a group can be often connected with level of trust and technical skills (Ballesteros et al., 2012, p. 901-902).

In relation to what we discussed during our literature review chapter, in 2010 Zhang developed a mathematical model to allocate human resources where he took as one important characteristic the desire of the employees to select the position where they wanted to perform (Zhang, 2010 p. VI-380). Similarly to that model, some employees from ALLEGION explained that every year one-on-one meetings were taken place in the company with the purpose of allowing functional managers to develop personal goals and try to align their objective with the annual strategic goals of the organisation. The general voice of the respondents coincides with the fact that career plan development was very important to secure the employee professional future, although interestingly, half of the respondents agreed that professional growth was not considered during the resource allocation process. Different stakeholders expressed a point of view on this matter, where functional managers explained that a percentage of workload was assigned to develop employee skills and to accomplish personal objectives that were developed during the annual assessment plan. However, project managers explained that most of the time they were not aware of the professional plan of each of the members in the teams they were leading. As a consequence, team members claim that personal growth is definitely not took at when the resource allocation process is made, which ultimately affects the overall satisfaction level.

Confronting these findings to the literature reviewed in this thesis, we can argue that team members should be treated as specific personalities and not as uniform entities (Yoshimura et
Yoshimura et al. also consider that each member has a potential to do the job and hence aptitudes and aspirations in the employees when performing different tasks should be considered. In contradiction to our literature review, some managers explained that resource allocation is quantified taking in consideration only experience, workload, and availability of the resources. A common opinion was found along the interviews, where the respondents argue that ALLEGION is not a company that enhances personal growth but rather is something that each employee should pursue or sometimes negotiate. We can conclude that even if several authors advise to consider personal growth as a key element, the resource allocation process at ALLEGION does not consider personal or professional plans but rather focuses on practicality and the goals of the organisation.

Additionally, in our literature review we found that team members should be treated as specific personalities and not as uniform entities (Yoshimura et al., 2006, p. 847). Yoshimura et al. (2006) also consider that each member has different aptitudes and aspirations to perform different tasks that should be considered as part of the group interactions and personal relationships. Based on the data collected we can claim that a good number of the respondents do not consider that personal relationships should be taken into consideration when the resource allocation method is conducted held. The respondents related personal relationships to professionalism and disregarded to some extent its value as an element of their jobs. They explained that personal relationships should no affect but sometimes can influence the flow of the work.

One of the most important contributions during our data analysis was the introduction from the respondents to the concept of trust building between managers and employees. PM1 explains that employees should feel safe when the human resource allocation process is made and employees should not feel worried about how functional managers made their decisions. Pizam & Neumann’s (1988) reinforce Ting’s (1997, p. 315) statements underlying the importance of the relationships among team members. Similarly, our study reveals that some participants considered the importance of good relationships among teams. The results from the interview stress that the correct mix of the right elements and the right skills can end with excellent results. Nevertheless, interaction among the team was not on top of the respondent answers and neither the development of harmonic environments.

6.1.4 Discussion on Job Motivations from the human resource allocation

Along the study, we found that motivation can be referred as the factor, which motivate staff, and give them an incentive to work Herzberg (1968). Herzberg argues that satisfiers can produce and increment on the efficiency and performance. However, most of the employees agree that motivation should not affect their work on terms of performance. Some of the elements included along motivation satisfier were recognition, responsibility, and nature of work (B2B International, 2015). (See figure 1). Nonetheless, as the results of our study, we found that ALLEGION practices most of the time do not consider employee motivation to allocate resources. Some of the respondents explain that the lack of consideration of personal motivation could definitely affect employee satisfaction.
6.2 Employee Satisfaction Matrix Discussion

In this sub-section we will present our analysis corresponding to the employee satisfaction matrix divided in four topics: personal qualifications, personal aspirations, group relationships and job motivations.

6.2.1 Discussion on Personal Qualifications from the job satisfaction perspective

Most of the employees and project managers that we interviewed, agreed that job satisfaction is, to some extent, a consequence of the human resource allocation process carried out in the company. As part of their responses, they specifically mentioned ‘skills utilisation’ and ‘expertise’ as two factors that were important for them and that they feel contributed to increase their satisfaction level as employees of ALLEGION.

We argue that these findings correspond to most of the theory presented previously in this thesis where some scholars included these two aspects in their models to measure employee satisfaction. (Ting, 1997, pp. 324:327, Duke & Sneed, 1989, p. 1087, MEHTA & MEHTA, 2013, p. 211). Ting (1997, p. 324) for instance, found in his study that ‘skill utilisation’ is the first and more significant factor influencing the job satisfaction of employees at all levels. He even defined ‘skill utilisation’ as ‘the degree to which jobs allow individuals to utilise their skills and abilities’ and claims that most of the employees show a high degree of job satisfaction when their skills and abilities are properly utilised to perform their tasks (Ting (1997, p. 313). The studies of Ting (1997) seem to have a strong relationship with our findings because they reinforce what the employees and project managers working at ALLEGION responded during the interview. We can then argue that the degree in which an employee is able to use his/her individual abilities while performing his/her job, definitely influences his/her job satisfaction level.

As a supporting argument to this, we can also mention Duke & Sneed (1989, p. 1087) who found that ‘job characteristics’ were important to make feel an employee satisfied. In their study, one of the job characteristics they measure was ‘task identity’ which directly relates to skill utilisation (Duke & Sneed, 1989, p. 1087).

We believe that ‘skills utilisation’ and ‘experience’ were the most relevant elements mentioned during the interview because they relate to the contributions that the employees deliver to the organisation and consequently affect the recognition they obtain out of it. Penna's (2007) and his model of engagement indicates that employees seek to find ‘fulfilment in their jobs’ and argues that that fulfilment is generated when the employees are making a contribution to the organisation (MEHTA & MEHTA, 2013, p. 211).

Such arguments make clear for us that ALLEGION’s employees highly appreciate being allocated to projects where they feel comfortable working, and that the degree in which they feel they skills and experience are being considered for this process certainly affects their overall satisfaction level in the organisation.

6.2.2 Discussion on Personal Aspirations from the job satisfaction perspective

According to our findings from Table 6 which centres in the personal aspirations and professional development of the employees as a potential driver of employee satisfaction, we could recognise that the respondents considered important to have opportunities that enabled them to develop their careers and growth in the company. Employees and managers argued that this element was certainly something they look at when thinking about their overall job satisfaction and they were able a link this aspect to human resource allocation, in the sense
that being allocated to the right project was an important start point in their career development.

These findings have relation to the claims made by Herzberg’s (1968) Two-Factor Theory where he considers ‘personal growth or achievement’ as part of the ‘Satisfiers’ that contribute to generate satisfaction in employees (B2B International, 2015). Herzberg (1989) theory, states that the ‘satisfiers’ are factors, which motivate employees, give them an incentive to work and have a direct and positive impact on satisfaction. He also argues that the presence of these elements improves the worker’s performance, which is another element that was mentioned by project managers and employees during the interview.

Penna’s (2007) also addresses ‘promotion opportunities’ as part of his model of engagement (B2B International, 2015). He claims that training and development are key influences on staff engagement as they equally contribute to develop their overall satisfaction at work (B2B International, 2015, MEHTA & MEHTA, 2013, p. 211).

Based on these theories and findings, we can argue that ‘career development’ is evidently a job satisfaction driver linked to human resource allocation and that the extent in which the functional managers working at ALLEGION consider this element during their staff assignation process to their projects will directly influence the job satisfaction level on their employees.

6.2.3 Discussion on Group relationships from the job satisfaction perspective

The relationships that employees have with co-workers and managers was a relevant element that we identified from the comments of the respondents during the course of our interviews. Most project managers and employees, both considered this aspect as a crucial driver of job satisfaction. Even when some of the respondents claimed to disregard the implications of conflicting relationships at work and commented that they manage their personal relationships in a separate dimension, the majority of them seemed to agree that maintaining healthy interactions with colleagues and bosses and performing in a harmonic environment was certainly an aspect that increased their job satisfaction as employees of ALLEGION. We can relate these findings to the studies conducted by Pizam & Neumann (1988), Ting’s (1997) and Duke & Sneed (1989). These academics, linked –in their own way– the individual relationships that the employees hold at work with job satisfaction (Pizam & Neumann, 1988, p. 99, Ting, 1997, p. 313, Duke & Sneed, 1989, p. 1087, Hyung, 2009, p.12, Robbins & Judge, 2013, p. 80).

Pizam & Neumann (1988) for instance, claim that one of the major determinants of satisfaction with co-workers and supervisors is derived from the extent in which the employees receive feedback from their supervisors and peers. During our interviews it was mentioned by TM3 that she had a better perception of her job when she received feedback from her project manager. This statement strongly relates to the arguments of Pizam & Neumann (1988) and leads us to presume that the project managers working at ALLEGION should maintain a good relationship with their employees fostering open feedback and building the trust required to achieve open communication.

Ting (1997, p. 313) also talks about relationships with co-workers and supervisors and categorised this aspect as an organisational characteristic that influences employee satisfaction. Duke & Sneed (1989, p. 1087) similarly, considered the personal relationships that the employees need to maintain to perform their jobs as one of 30 job characteristics they used to measure the job satisfaction in their study. They make reference to this job characteristic in their study as ‘dealing with others’ (Duke & Sneed (1989, p. 1087).

Taking into consideration the findings and the claims made by the scholars present in our literature review, we can argue that the relationships that the employees working at
ALLEGION have with their colleagues and managers certainly influence their job satisfaction level to some extent and that such relationships are product of the human resource allocation process that project manager conduct in the company. Making a strong linkage with the model we have developed at the end of our literature review chapter.

6.2.4 Discussion on Motivations from the job satisfaction perspective

Table 9 displays that 7 out of the 9 respondents in our study mentioned that personal motivations were an important aspect to consider when discussing their job satisfaction. Even when some of the project managers at ALLEGION unknown the individual motivations of their employees, they still believe this element possesses a strong connection with the the performance and satisfaction that their team members feel when working in a project. In a similar way, employees commented that their motivations contribute to deliver good results and to feel content with their jobs. Considering these statements, we can claim that more than a driver of satisfaction, employee motivation leverages good performance, causing as a consequence, an increase satisfaction in the staff. We believe that when the staff allocated to a project is motivated, then their performance is higher and therefore their satisfaction is elevated too.

These arguments can be supported by Herzberg’s (1968) Two-Factors Theory, where he identifies four ‘motivation factors’ which have a direct and positive impact on job satisfaction. Herzberg’s (1968) claims that when his four motivation factors are met, the worker’s efficiency increases, leading ultimately to create a more satisfied employee (B2BInternational, 2015).

We also believe that the motivation contributes to foster the ‘engagement’ of the employee for the company –in this case ALLEGION–. As Penna (2007) proposes in his engagement model, we argue that an employee that is engaged with his company due a high job motivation, is more likely to become satisfied at his/her work (MEHTA & MEHTA, 2013, p. 211). This proves, to some extent, an existing relationship among motivation, engagement and job satisfaction. Even when we do not look at the term ‘engagement’ in depth during our thesis, we believe that is relevant to discuss this concept as it contributes to provide validity to the motivation-job satisfaction relationship we are studying.

Finally, taking into consideration our findings from the interviews and literature review, we can claim that motivation is probably not a direct driver of job satisfaction, but instead functions as an indirect influence to it. The managers at ALLEGION should be aware of the motivations that their employees own as this can help to improve in some extent the results obtained from their human resource allocation model. This practice will also allow the employees to enhance their performance and contribute in a better way to accomplish the goals of the projects where they collaborate.
7. Conclusions

Taking into consideration the findings of our qualitative interviews, we can conclude that there are four important factors that should be considered in the human resource allocation process carried out at ALLEGION as they have a significant influence on the job satisfaction level of the employees working in its projects. These factors are: skill utilisation, career development, personal relationships with co-workers and managers and job motivations. Each of these factors are strictly related to the employees and the process involving the decision-making that functional managers conduct to assign staff to a project in the company. In this context, we have been able to determine that employee satisfaction at ALLEGION is to some extent a consequence of its human resource allocation process, proving in this way the correlation and influence that governs these two aspects.

The contemplation of the employee’s individual qualifications and skills during the human resource allocation process has been suggested by some scholars as a way to achieve staff efficiency and optimal results for the project (Zhang, 2010 p. VI-380, Ting, 1997, p. 313, Pizam & Neumann, 1988, p. 99, Duke & Sneed, 1989, p. 1087). As part of our studies, we have discovered that considering this factor during the process, not only contributes to deliver a good performance but also helps to generate a high job satisfaction level in the employee. At ALLEGION, we noticed that there is not a standardised method or system to assign human elements to projects and that the consideration of personal employee qualifications during the human resource allocation process commonly depends on the person functioning as decision-maker. We argue that when individual skills are taken into account, the employees feel they are being recognised for their personal contributions to the project and therefore have a better perception of their jobs, which directly impacts their performance and job satisfaction level.

Personal development at work is a factor highlighted in our literature review as a driver of satisfaction and an element to look at as part of a successful resource allocation process (Hyung, 2009, p.12, Robbins & Judge, 2013, p. 80, B2B International, 2015, MEHTA & MEHTA, 2013, p. 211). Our study allows us to confirm that the project managers and employees working at ALLEGION both consider the career development opportunities that the company offers them when they have to provide a stand in regards to their job satisfaction level. Contrastingly, we found that only few managers took into consideration such a factor when they perform their human resource allocation, causing as a consequence, a negative influence in the satisfaction of their employees.

We conclude that the employees appreciate if their career aspirations are considered by their managers when they are assigned to a certain project. When this happens, the employees feel more satisfied about their job because they know their growth in the company is being encouraged by the organisation. As part of our findings, we also claim that when an employee at ALLEGION is allocated to a project where his/her personal aspirations match with the role or activities involved with his/her position, there are good chances that he/she thrives in the area or develop intentions to do so. This consequently causes that the employee experiences more satisfaction at his/her workplace, as well as an increase in their motivations during his/her performance.

In regards to the personal relationships with co-workers and managers, we found that the majority of employees and project managers at ALLEGION certainly felt that the constellation of their teams was an influence on their job satisfaction level.
During our literature scrutiny, group relationships arose as a factor that scholars used to develop effective human resource allocation models (Ballesteros et al., 2012, p. 901, Moreno-Diaz et al. 2001, p.172). Similarly, scholars versed in the study of employee satisfaction, mentioned that personal relationships with co-workers and managers were determinant to measure such important aspect in an organisation (Pizam & Neumann, 1988, p. 99, Ting, 1997, p. 313, Duke & Sneed, 1989, p. 1087, Ting, 2009, p.12, Robbins & Judge, 2013, p. 80). At ALLEGION, we found that functional managers (decision-makers) rarely look at this factor when they allocate their human resources to their projects, however, employees and project managers both agree that having good relationships with their colleagues and establishing bonds of trust among their peers was definitely a driver of their satisfaction at work. This finding allowed us to conclude that even when the employees and project managers does not feel that their personal relationships are being considered for the conformation of their work teams, they still believe that this factor has certain degree of relevance in their job satisfaction and would appreciate if functional mangers included it as part of their decision-making in the human resource allocation process.

During our study, we also obtained some contrasting results. A fair number (but not majority) of respondents in the sample commented that personal conflicts with colleagues or managers was not a factor that impacted their performance nor they thought it should be considered during the human resource allocation process. They argued that being able to maintain personal relationships in a different dimension to the work environment was part of being professional and that they did not look at this factor as an elemental part of their jobs. Even when the relationship –influence– of human resource allocation process and employee satisfaction was not threatened by these commentaries as they relate more to job performance than job satisfaction, we suggest that further research has to be conducted in order to better understand the weight that decision-makers at ALLEGION should give to personal relationships in the team constellation when carrying out their human resource allocation process.

Motivation was the last factor that we found relevant to determine the employee satisfaction level of the employees at ALLEGION as a consequence of the human resource allocation process conducted in the company. Some academics claim that motivation enhances staff performance which consequently contributes to increase job satisfaction (MEHTA, 2013, p. 211, B2BInternational, 2015). Comparably, Yoshimura et al., (2006, p. 832) who developed a model to optimize the human resource allocation, argues that the motivation of the employee should be considered in order to ensure optimum results. Concluding on this topic, we claim that even when motivation is probably not a direct driver of job satisfaction, it certainly functions as an indirect influence to it, and the project managers at ALLEGION should pay attention to know and increase the motivation in their employees when they allocate their human resources to their projects. By doing so, the project managers will improve the performance in the employees and contribute –in the long run– to enhance their job satisfaction.

Finally, after considering all the factors we have studied in this thesis we can claim that the extent in which skill utilisation, career development, personal relationships with co-workers and job motivations are considered as part of the human resource allocation at ALLEGION will bring as a result a positive or negative outcome in terms of employee satisfaction among the projects of the organisation.

We argue that functional managers and other (direct and indirect) decision-makers involved in the human resource allocation process should be aware of the implications –positive or negative– that contemplating or disregarding such factors can bring to the organisation. Only
in this way ALLEGION as a company will be able to ensure that the employees working in its projects are satisfied with their jobs, which as we have mentioned before, affect to some extent their performance and motivations.

7.1 Theoretical Contributions

Some studies have been conducted in the area of human resource management focusing on how best practices contribute to improve organisational performance, however, to our knowledge, no other study has focused on the influence that the human resource allocation process has over the employee satisfaction before (Guest & Conway, 2011, p. 1686, Jiang et al., 2012, p. 1264). We argue that our main theoretical contribution has been the identification of the relationship that these two major subjects –human resource allocation and employee satisfaction– possess between each other and their relevance in the achievement of optimum outcomes in a project.

The findings of our case study, have enabled us to identify four factors that functional managers at a large manufacturing company operating in a projects have too look at in order to optimise their human resource allocation process and consequently increase the job satisfaction level of the people working in their projects. Previously, some scholars have argued about the considerations that have to be integrated in an optimal human resource allocation process, yet, these considerations were mainly oriented to costs and time optimisation, disregarding the affections that their proposed methods implicated for the employees subjected to them (Hendriks at al., 1999, p. 182, Ballesteros et al, 2012, p. 902, Selaru, 2012, p.276, Eskerod, 1998, p. 125, Moreno-Diaz et al. 2001, p. 172, Zhang, 2010 p. VI-380, Yoshimura et al., 2006, p. 832, Horng, 2006). Through our conceptual model, we have encountered that the decisions involving the allocation of human resources to a project should certainly contemplate more than just efficiency and economical aspects, and that the employees can increase or decrease their satisfaction at their jobs when certain factors are included or neglected in this process.

We claim this discovery is a concrete contribution to the field of project management and human resource allocation. Moreover, thanks to our findings we have increased the knowledge in the manufacturing industry about the aspects that employees and project managers consider relevant when self-measuring their employee satisfaction level, proving to some extent the existence of a positive relationship of some of these factors with job performance.

We believe our findings can open doors to new research opportunities that could potentially explore in depth the impact of job satisfaction in employee performance, and furthermore, the impact of employee satisfaction in organisation effectiveness.

7.2 Managerial Implications

As part of the objectives of our research, we believe that the findings of this study can offer practical insights about the human resource allocation method. However, research limitations should be respected. As a result, the following recommendations should be considered only as potential insights that project managers and functional managers could use in the future.

Firstly, a recognition of the importance of a standardised method during the human resource allocation process will facilitate any possible negotiation between functional managers and project managers, bringing as as result a clear vision of the human resource requirements and constrains.

Secondly, the human resource allocation method should comprise different periods of time, contemplating a short, medium and long-term panorama. An integral human resource forecast
will facilitate a better integration between the human resource allocation method and the professional plan, ending as a result an increment on the employee satisfaction level.

Thirdly, managers and project managers should give priority to identify employee qualifications and skills in order to be aware of the resources available. On this way, the recognition of the best candidate for each project can be accomplished. Additionally to this, the complete utilisation of skills could provide employees with a sense of meaningfulness among the organisation. Moreover, motivation was one of the factors that most of the managers neglected. We consider that taking in consideration the personal motivations of the employees as part of the task assignment in the project can help to develop stronger relation of trust, having as consequence a better employee satisfaction level.

7.3 Future research recommendations and limitations

The purpose of this section is to provide future researchers insights about the lessons learned gathered along the research process. We recognized the limitations that our research presented during the learning cycle, for example the lack of triangulation during the research design. We believe that a better result may be achieved if mixed method is conducted using interviews and questionnaires to prove interpretations from authors. During the research period boundaries about resources like time, and human resource availability should be acknowledged.

As a result of this recognition we claim that if an extended research is conducted elements founded during the interview process like trust, self confidence, process of keep motivation from employees working among projects, could be generalized based on the opinion of more respondents.
8. REFERENCES


9. APPENDIX
Interview Guide

General Information
(used only by researchers)

Organisation name:

Date:

Time:

Interview type: (Skype/E-mail):

Duration:

Interviewee:

Interview begins

Thank you for participating in the research for our thesis work. We would like to inform you that this thesis will be publicly available in the thesis database of Umeå University. You have the free right to stop the interview in any time during the interview.

Confidentiality & Anonymity:

- Do you choose to be anonymous in our thesis?
- Can we use your job title?
- What is your job title?
• How long have you been working as a member of ALLEGION organisation?

• Do you agree with this interview being recorded?

**General: the context department characteristics.**

Could you introduce briefly about your company, the history? What is your team, including partners, the management and employee number?

What method ALLEGION uses to allocate employees to your projects?

Do you know if your manager uses any sort of software or tool? If so, please let us know which one and what aspects it considers.

Is this method systematized?

What are the factors that you know are considered when your manager allocate human resources to a project?

Do you consider that the current resource allocation process carried out by ALLEGION as an organisation is effective to accomplish the objectives of your projects?

To what extent are you aware ALLEGION is concerned with the satisfaction of its employees working in projects?

How do you think an effective human resource allocation has to be performed?

What aspects do you think affects the satisfaction level of the employees working in your project?

At what extend are you satisfied with your job?

Do you consider that the current resource allocation process carried out by ALLEGION as an organisation is effective to accomplish the objectives of your projects?
Skills

Do you or your project manager consider your skills and personal characteristics when he/she assigns you to a project?

How this affect your performance and satisfaction in your project or team?

Persona Aspirations

Do you or your project leader takes into consideration your personal interest in regard to the projects where you want to participate?

How this affect your performance and satisfaction in your project or team?

How do you think your contributions affect the performance of the team?

Group relationships (co-workers and supervisors)

Do you or your project leader takes into consideration your personal relationships with your colleagues and managers when you are assigned to a project?

How this affect your performance and satisfaction in your project or team?

Job Motivations

Which are your motivations to do certain job?

Do you or your project leader takes into consideration your motivations to perform in certain project when you are assigned to a project?

How this affect your performance and satisfaction in your project or team?

We will send you the transcripts of this interview so as to ensure that the correct information is used in the analysis.

Do not hesitate to get back to us in case you want to add information.

Thank you!