

Veteran resolution to control hiring and assimilation retards

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Abstract - One of the key practices in Software Project Management is to handle the hiring and assimilation retards mainly with the fresher. Retards are nothing but the causes for delay or hold back in terms of progress or development in a project. Assimilation decisions show a linear effect on the outcome of the project. Cost and time incurred in finding a suitable candidate, providing them an intent date, training him on required platform, assigning him/her a simulation project and checking his/her quality level consumes a large amount of resources of an organization. Of all these issues dealing with assimilation of hiring staff is worst. It is a great deal for the Human Resource Managers to control and handle the hiring and assimilation retards. Here we suggest few veteran decisions by which decision makers can handle and manage these issues based on a practical report that we considered as a pilot project in which the subject handled a simulated project. In this pilot study the subjects are ascertained with different types of issues like minimal retards, maximal retards, assimilation retards, costing factor and hiring retards with their combinations.

Index terms - Assimilation, hiring, 720° grooming, minimal retards, maximal retards, SWOT analysis

1. PRIMISE

Projects are continuously beset with overruns in budget, schedule, poor quality, reliability, user dissatisfaction and failures in production [1],[2,p.89]. Available projects states that the automated tools and androidness used in the development process from 2005s' is no longer a

bottleneck for the progress of software development [4]. Rather, the issues are on the stem of the project management in handling the retards in a project flow. Ineffective project management in assimilations and hiring are the primary causes that have a converse effect on the project resources and success. Thus, human resource management and their team effectiveness are beset factors for the success than that of the tools they use or the technical approaches they take [1 p. 275]. So, decisions taken by the manager and prerequisites on the microstructures of managerial activities in turn produce a great result. In this paper, we proffer suggestions on process explanation for controlling the assimilation and hiring retards of a project. Software research and development is continuously getting done to improve the effectiveness of the project management, where they are concentrating on the project estimations and control tools used for managing the projects. Examining the roles and responsibilities of the managers and decision makers are not getting done on the go.

I (a) Pilot Project

We employed an experiment on freshly recruited subjects in a pilot project at Cosmosys Invent Labs Private.Ltd [3] where we took the help of a subject that played a role of Project Manager in controlling the staffing levels. The profile of the project is as follows.

The Artifact sets expected in the initial estimate of the project as per the requirement documents	1756
Actual artifacts developed by the end of the project with the changes done by the client	2608
Schedule expected in days for the initial duration as per the primary artifacts in the project	120
Note: Here Artifact is a unit of work, equivalence to 100 SLOC ^o	

Table 1: Profile of project

This pilot project started on 16th of August 2014 and was expected to close by 15th of December 2014, but the project extended up to the 9th of January 2015 (an additional of 25 days). All the subjects were told that the excellence of their performance will be recorded on real time basis and to finish the project as quickly they can. Though there was an increase in the artifacts the increase in the schedule was an additional of 25 days to that of the change expected over schedule. In this critical study throughout the schedule, we analyzed two different causes, namely assimilation and hiring retards. In realistic conditions of work we found that they have minimal and maximal effect over the project life cycle. As per our analysis, we found that *Assimilation retards have a maximal effect on the project than that of the hiring retards.*

I (b) Project Report

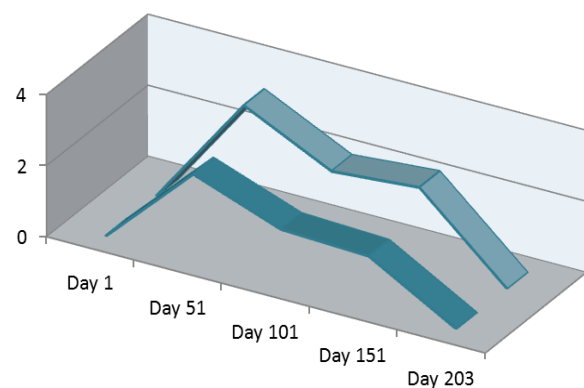


Table 2: Study Graph of Assimilation (REF)

We analyzed the reports delivered for every 50 days during the project schedule. The above graph is a model chart made by the project manager, which explains the minimal and maximal effect on retards. Red plots indicate assimilation retards and the blue plots indicate the hiring retards on the entire life cycle. Throughout the duration of the project, there will defiantly be removals and hiring in the project team and it is unrealistic for work situations to have no retards. The practical graph clearly shows that assimilation retard or higher than hiring retards

2. CAUSES FOR RETARD

From the above pilot project we can understand that retards in any project are influenced by two key variables *perceived work remaining* in a project and the *perceived productivity*. In these cases work force has to be adjusted for the constraints such as budget, new hires, experienced employees and quality factors of the project^[12]. The relation in between effort required and the project completion with relation to the constraints can be seen in the below graph.



Fig 1: Relation of work and productivity

Sometimes it may need a series of decisions to be taken to control the constraints. project. Acquiring familiarity with the project domain will also have an adverse effect in gaining new hires at the late time of the project. As the size of the software development team varies at various phases of project with change in attrition based on work sought, dynamic decisions of the veterans play a key role. The inability to complete assimilation not only retards the project, but also increases the cost due to the net cumulative contribution of the project. This also affects the good will of the company and the development team involved in the process. Time in between initiation of hiring to the

assimilation of the new hire may take three to six months, which is the prime factor for retard^[12].

Therefore decision makers have to come up with the retards in the project by taking dynamic decisions at several intervals of the project. Adding too many people to the project can also spoil the project and we also need to balance the attrition rate of fresher's to the seniors based on the classification and type of Sometimes decision taking and resultant of the resolution may lead to failure of the project, so care has to be taken at assimilation and hiring process to control upcoming issues in the project. In section 3 and section 4 we have gathered few veteran decisions that can help in controlling hiring and assimilation retards.

3. COPING WITH HIRING RETARDS

3.a Hiring Retard

Hiring retard can be defined as the time taken to find a suitable candidate for the job^[8]. Hiring retards reflect to an extent to which suitably qualified people are available, the rapidity at which they can be hired and the efficiency of the panel in bringing out suitable personnel from the market. It matters with the identifying the vacancies, making the job profile, choosing a panel, grouping the candidates, conducting the interviews and identifying suitable personnel^[8]. Hiring therefore carries a high degree of precision and time taking process.

I	• Identify vacancy and evaluate the need
II	• Develop a position description
III	• Develop recruitment plan
IV	• Make a panel and post responsibilities
V	• Develop shortlist by setting cutoffs
VI	• Conduct campus interviews
VII	• Select hire and finalize recruitment
VIII	• Middle calloff hired personnel
IX	• Feedback system

Table 3: Fully productive hiring process

Here in the above table 3 we are socializing a better process for simple and fully productive hiring process which is developed from the suggestions given by the veterans for campus selections and the process runs as follows.

I. Identify vacancy and evaluate the need

The organization must maintain a database on level of the work force needed for the available personnel, perceived productivity of the workforce, balance between new hires and experienced personnel, workforce sought as per the needs of the current situations^[4]. They are few issues that are be considered those often stretch the situation criteria such as

- *Takeover and merging of companies*
- *Starting of new branches*
- *Signing up new projects*
- *Lay off employees.*

II. Develop a position description

As per Henri Fayol (1841-1925) *Father of Administrative Management* said that “*Greater power always comes with greater responsibility*”, here in the position description organization should clearly explain roles and responsibilities so that candidates may understand what circumstances s/he has to work and where they can be flexible to him/her that directly help the candidate in understanding job description. In finding whether it suits him/her passion [9].

III. Develop recruitment plan

As per Lawrence A. Appley’s triangle decision makers have to classify the level of the job and the expectation criteria of the candidate that match the job description. In this work strategy can be classified into three levels. Based on the level of management interview process, education qualification, experience, technical certifications has to be taken into considerations [5]. An Advance interview technique such as null hypothesis test, psychometric test, poster and gesture test and calligraphy test can be planned based on the job description [6].

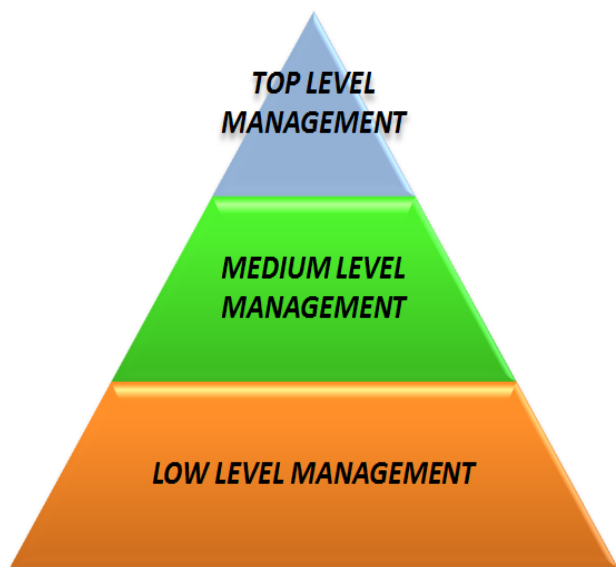


Fig 2: Lawrence A. Appley’s triangle

IV. Make a panel and post responsibilities

As per Jeong Yeon’s study of behavioral research it is better to divide the roles, responsibilities and making a team for recruitment panel. The panel has to be made with the team that consists of senior personnel, project managers and team leads which helps in choosing the right personnel to their team [11]. Two or more teams have to be made and resolution on posting the team to the campus should be taken by the veterans at the time this helps in controlling financial bonding with the campus to the cooperates

V. Develop short list by setting cutoffs

Total database of the candidates attending the interview process has to be collected in advance [19]. The database has to be sorted based on upper and lower cutoff aggregates. Information of the candidates with course certifications, programming certifications and extraordinary skill set has to be separately made for the purpose of the interview. Short listed data should be directly posted to the candidates along with the date, time, venue and process of interview. This helps in maintaining a direct relation with the candidates [4].

VI. Conduct Campus interviews

Standard interview patterns like written test, group discussions and personal interviews helps in bringing out the required candidates, but for the special purpose jobs such as creative designers, testers, quality assurance and customer relation management [6]. It needs a special process in conducting the advanced interviews such as

- *Surprise test on real time coding issues.*
- *Case study of real time issues*
- *Telephonic interview with executives.*
- *Solving debugging the coding issues.*

This type of advance interviews techniques will help in finding out the capable candidate to the right job [11]. Organizations such as banking, retail and insurance are short listing the candidates through on-line interview process to control the interview process when the number is huge. Candidates can also be given a duration of two to three weeks of time for next core panel interview in case of product based job profiles [11].

VII. Select hire and finalize recruitment

If an organization requires ‘N’ candidates, the panel has to choose the N+M number of candidates (M= 20% to 30%) as few of them may drop down before joining the organization, which we generally consider to be hiring issues [7]. Some candidates cannot perform well in probation period in training as expected by the level of the organization where HRs may layoff these types of candidates. So it may lead to assimilation retards. So it is better to choose number of candidates than the required count so as to manage assimilation and hiring retards with the candidates [15]. Prioritized list of (N+M) shortlisted candidates has to be enclosed at finalizing the recruitment [8]. As per Naive benchmarking staffing level at any point in the project is a function of the effort remaining and the time remaining to accomplish the work [13]. Therefore, at any interval of time hiring level can be calculated as.

$$Hiring (N + M) = \frac{Effort \text{ (in personnel/days)}}{project \text{ duration (in days)}}$$

Effort depends on the total number of artifacts in a project. For macro projects it is technically not possible to calculate the effort, but in Meta and micro projects it can be calculated as

$$Effort = \frac{\text{task perceived}}{\text{perceived productivity}}$$

Here project duration is measured in terms of time i.e., number of estimated working days required in completing the project.

Time = scheduled completion date – current date

Normative hiring level in situations where both hiring and assimilation retards are practically present in real time, is calculated by

$$\frac{\text{tasks remaining} - \text{task accomplished by existing staff during hire plus assimilation retard}}{\text{perceived productivity}} \times (\text{time remaining} - (\text{Hire delay} + \text{assimilation delay}))$$

VIII. Middle call off hired personnel

An organization has to maintain telephonic and mail conversations with the hired personnel. Quarterly budgets, decisions taken by the board of directors and public information of the organization must be shared with them so that candidates will have a regular update with the organization and feel as a part and part of the organization even before they join the team^[15]. This mainly helps in controlling the hiring retards at lowest cost and also benefits the organization by trumpeting their business expansion and needs. This is practically proven correct in TCS- ION^[16] as they are maintaining a regular contact about their projects and process with their hired candidates.

IX. Feedback System

One of the best tactics is that an organization can maintain a suggestion mail box with the hired personnel. As we are sharing a part of our project and organizational information to them, they can think about how and what can be done to improve the process^[19]. The interest shown by the hired personnel will also benefit the organization management in fitting the job to the skilled^[16]. Customer relationship management, material management, inventory control in the product based companies can be well improved by a feedback system.

4. COPING WITH ASSIMILATION RETARDS

4.a Assimilation Retard

It is partly a process of acquainting a new hires with the details of the specific project, domain, development tools and environment. New hire must be socialized into the project team as well as large organization; learning to work with new team has to be familiarized^[19]. The assimilation of a candidate takes more time than hiring retard. So in this paper, we proffer few technics that can help in controlling in assimilation retard when they are put in realistic operation^[23]. It is practically not possible to control cent percent assimilation, but can in cooperate to a better extent.

4.b Depending on sister concern companies for the training

Every organization has to deploy at least 20% of its experts to train the fresher's. This may sometimes lead to retard of currently developing projects where those experts are required^[19]. In such cases, companies can form as a group and set up training and skill development center with the help of third party vendors where they will carry out the responsibility of training the candidates in the expected domain by the companies. Sometimes if the organization feels this as an extra expenditure few companies can form as a group of sister concern companies and lay their experts as trainers whose are on bench. This tactic not only improves candidature but also helps the company in optimizing the idle time of the employees.

4.c Setting up incubation centers in selected campuses

If a company is continuously hiring from a same campus or a venue, then they has to establish the incubation center over there so they can train the candidates on the required environment even before they are taken into the organization^[21]. Candidates can be given with the real time quests that they are facing a case study where the candidates tries to solve them. This will improve the searching and resolving adroitness of the candidate even before s\he enters the firm. This will not only reduce the assimilation time but also helps in real time study for the candidate on his\er job nature. Expertise support can be given to the personnel through the incubation centers that help them in solving the quests. Choosing a team of fresh hire can be possible by assigning a partly completed project to them and asking them to complete it in a given schedule. Training on upcoming technologies and tools, hands on training can be possible through incubation centers.

4.d Apprenticeship projects to the select institutes

CMMI level 3 and 4 companies do Meta and Macro projects and gets engaged in maintenance projects, so micro projects which raise up in improving Meta projects can be transferred to the candidates who have already proven to be best at the incubation centers. Students of pre final year from the selected colleges can also be taken as interns in doing the projects^[14]. Handling such micro projects will improve the skillset of the candidate in real time environment. This adroitness will control assimilations.

4.e SWOT analysis

Strengths, weakness, Opportunities, Threats analysis provides a structure for analyzing either our own strengths and weaknesses, and the opportunities and threats that the candidate faces in a work context^[17]. This analysis does not end in themselves, but a step before some action planning. Ideally, it is one step in a process which helps in identifying appreciating the candidates' strengths of a situation and may then decide to build on these

- *Defining the weaknesses, which the trainers may focus to minimize.*
- *Making the most of the opportunities that present themselves.*
- *Recognizing the possible threats, optimize them in a planned and organized way.*

SWOT analyses usually benefit from discussion, get other people's perspectives^[20]. Veterans must be realistic and

focused on what really happens. This analysis can be classified under four terms. SWOT analysis lead to asking difficult questions, but in structure, it helps people to focus on parts of the problem or sub-issues separately. Decisions can be made about these and in discussing components of an issue the whole is seen more clearly^[17]. SWOT analyses lead to asking difficult questions, but the structure, it gives helps people to focus on parts of the problem or sub-issues separately. Decisions can be made about these and in discussing components of an issue the whole is seen more clearly. One

way of utilizing SWOT analysis is matching and converting the attitude of the candidature. Matching is used to find competitive advantage by matching the strengths to opportunities of the new hire. It aims to identify the key internal and external factors seen as important to achieving the motto of the candidate. Strengths, weaknesses are internal to the organization. Opportunities and threats presented by the environment external to the organization. Following questioner may be helpful prompts for our thinking.

Strengths	What are your personal strengths?	What can the company do to improve?
	What do you do well?	What is the best track record?
	What do other people see as your strengths?	Where does the organization compete well?
Weakness	What can be developed	What could you improve?
	What is working less optimally than you wish?	What is being done badly?
	What is the competition doing better?	What should you avoid doing?
Opportunities	If there were no constraints, what would you do?	What will happen in the next few years?
	What might be possible?	Where do you want to be in five years' time?
	Where do you want to be in five years' time?	What could be a win – win situation
	How may new technologies can you work on?	What are the technologies that we need?
Threats	What are the barriers to your development?	What sort of obstacles do you face?
	Who else might move in a take over your tasks?	What are rival organizations doing?
	Will new developments change your role?	Can you fund the short and long term?

Table 4: Questioner on SWOT analysis

4.f 720°Grooming

During probation period trainers try to boost the trainees with all the knowledge they can. As there always exists a gap of quality in learning and analysis between the fresher and veteran, a trainee will defiantly feel this probationary time to be a hard time, so the human resource management team and managers espouse 360°grooming technique in controlling the stress on the trainee. It will concentrate on his\er relations with top level management, subordinates, immediate superior, peer and his\er clients, but will now take concern on his\er personal tensions and stress^[10].

We proffer an advanced 720°grooming technique which will not only control the 360° terms, but also concentrates on family, relatives, friends, social networks and neighborhood relation and stress on the trainee, which helps the organization in realizing what can be done to support the employee in reducing his\er stress. It not only helps the fresh hire but also helps us in choosing an unique personnel from a team be a team lead. In this technique a questioner of 25 is generated and the evaluation is taken from his colleagues and immediate superiors as a grade of five rector scale from the people around him. Below is the five point grading scale^[22] on which employee has to be graded.



Fig 3: Five point grading scale



Fig 4: 10 concerns in 720° grooming

- ✓ Is s\he submitting the task in given time?
- ✓ Is s\he regular to work?
- ✓ Is s\he following the rules of organization?
- ✓ Time taken to understand your task?
- ✓ Is s\he managing personal & personal schedules'?
- ✓ How often did s\he meet his\er superiors?

- ✓ Is s\he behaving properly in social networks?
- ✓ Frequency of meeting seniors' for issues?
- ✓ Is s\he spending time for the family and relation?
- ✓ Is s\he attending formal meeting with seniors?
- ✓ How s\he takes team responsibility?
- ✓ How much do trainers trust him?
- ✓ Is s\he maintaining a healthy relation with friends?
- ✓ How much trust does s\he trust organization?
- ✓ Is s\he trying to solve the issues on own?
- ✓ How s\he behaves in the early hours to work?
- ✓ How s\he will behave in the later hours to work?
- ✓ How much s\he trusts top management?
- ✓ How s\he takes new tasks even in stress?
- ✓ Rate him\er for dress code?
- ✓ How s\he assigns tasks to subordinates?
- ✓ Rate him\er for politeness?
- ✓ Does he\r trust the immediate superior?
- ✓ How did s\he behave with inferiors?
- ✓ Did s\he greet colleagues when s\he is in stress?

Feedback of each and every fresher to the above questioner has to be taken periodically. Overall result is to be taken on five point grading scale and the evolved details must be stored confidentially from his colleagues. True and correct details have to be gathered from his\er immediate superiors and HR would be helpful in this process ^[10]. Motivation and personality development sessions can be arranged to the fresh hire for their overall improvement.

5. EPILOGUE

Veteran decisions gathered in this paper are being applied in real time and the resultant yielded is successful on few pilot projects. As we analyzed that assimilation has more adverse effects than hiring retards, we suggest the trainers to concentrate more on reducing assimilations than hiring retards to improve overall efficiency of the project. As we all know that training any employee is a long time benefit to any organization, we have put on best trainers and regular grooming of the new hires for a good long time result. SWOT and 720° grooming will directly benefit the fresher and the organization.

6. HOMOLOGUS WORKS

Motto of this paper is not just to explain reason and solution for retards, but also to help the organizations and fresh hires'on what can be done by the trainee to improve them and where an individual is actually lagging behind. This paper can be further enhanced by adopting newer techniques in training and bringing thebest out of fresher.

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