

ENMG-693: MANAGEMENT PROJECT

Project Case Study
on
“Strategic plans to improve
the efficiency of a
company’s management”



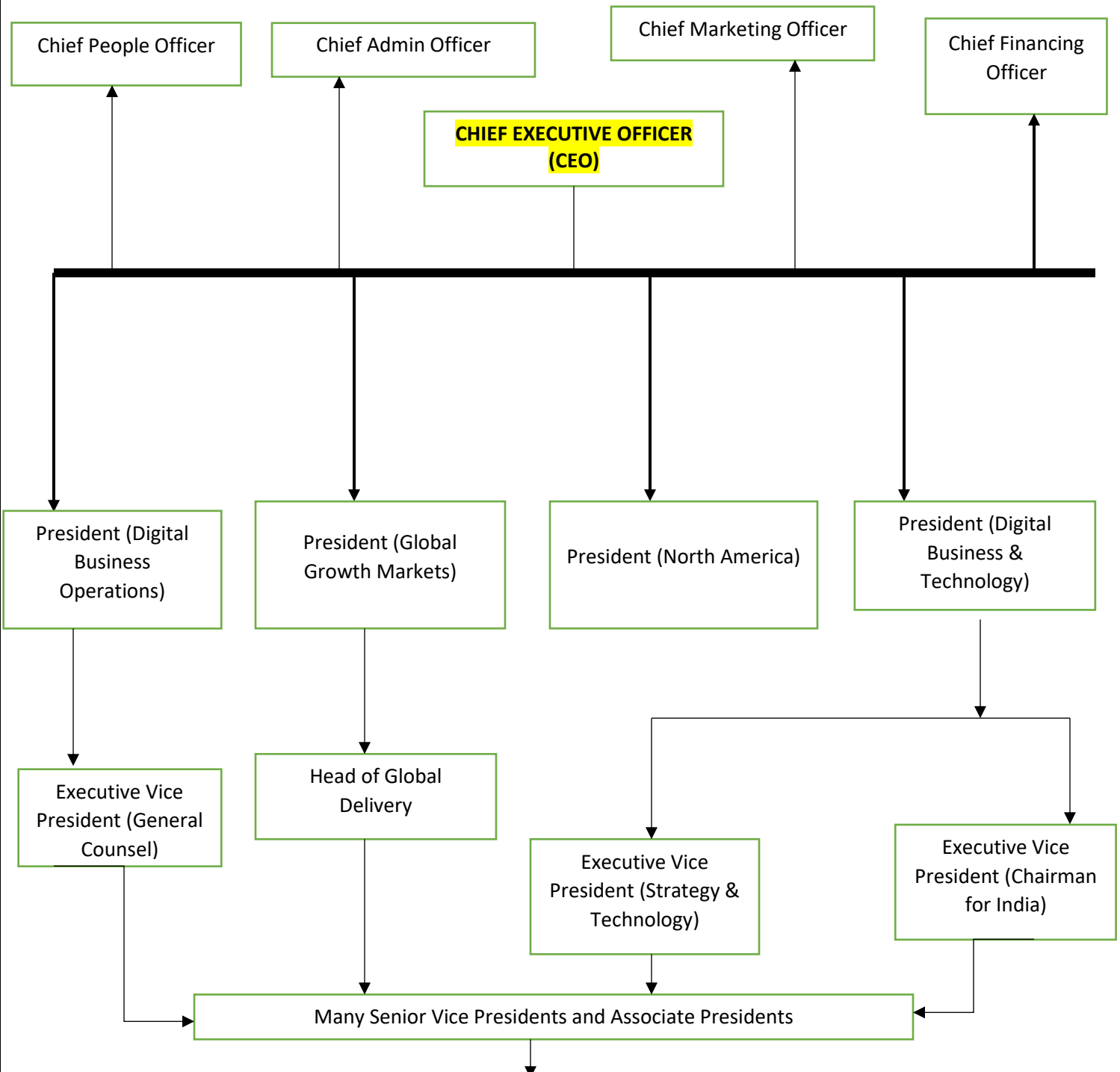
Under the Guidance of Prof. Toby Gowker

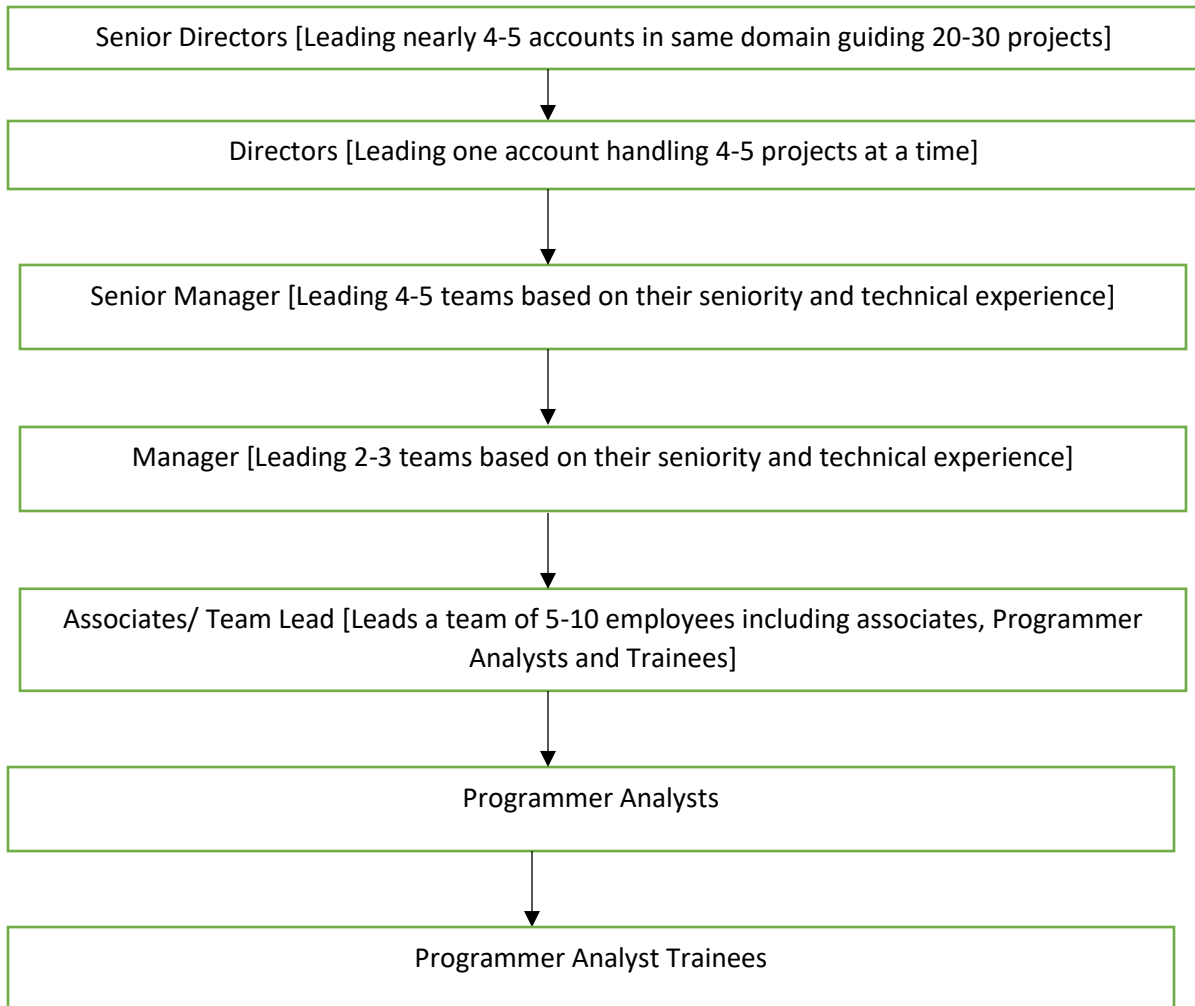
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THE CASE

Introduction:

XYZ is a service providing IT company headquartered in US is enlisted as one of the top 200 companies ranked by Fortune 500. The company has 200,000+ talented employees working for them. The company has many branches in different countries across the world servicing for various clients around the globe. The organization profile of the company is given below.



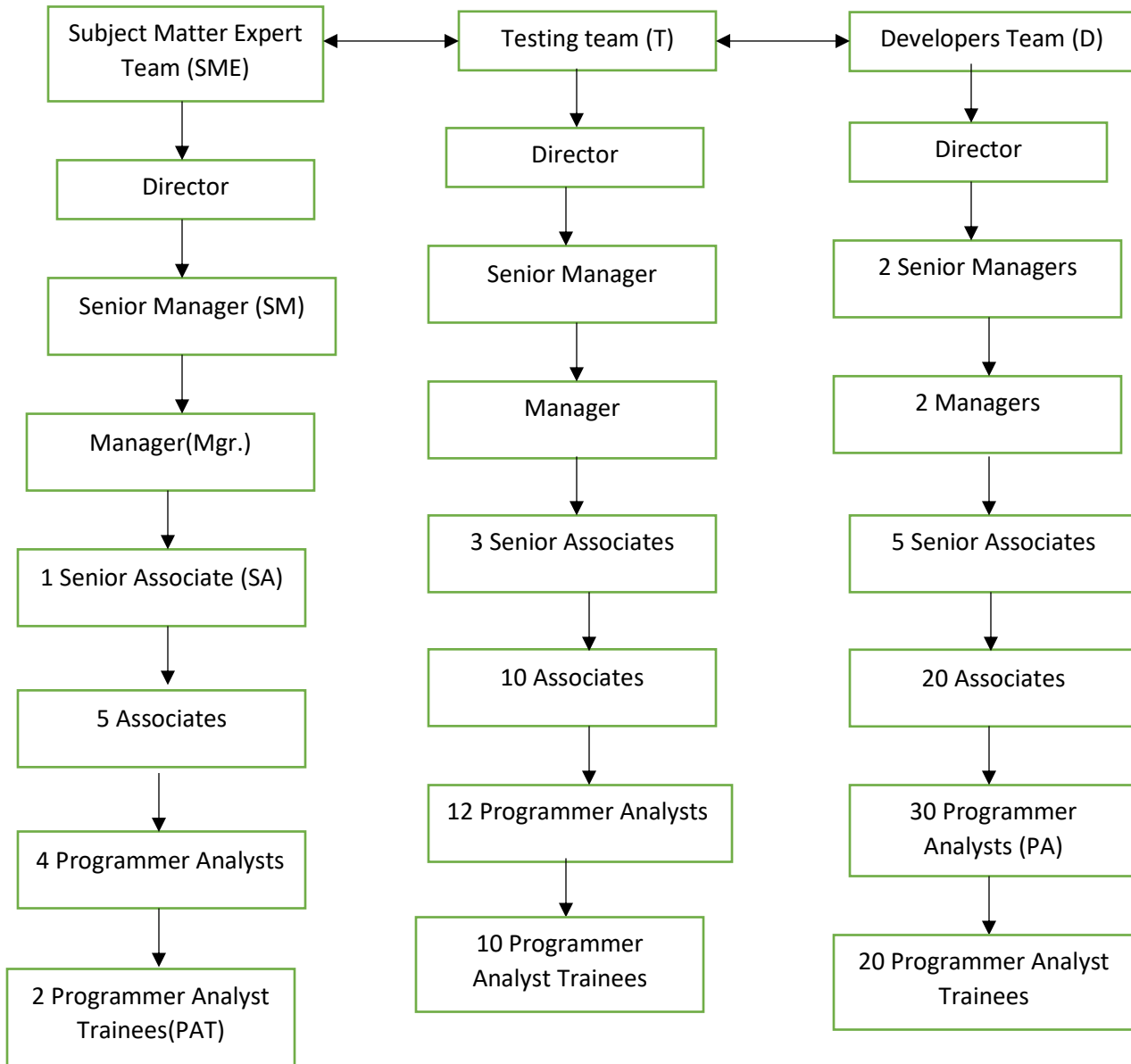


Background:

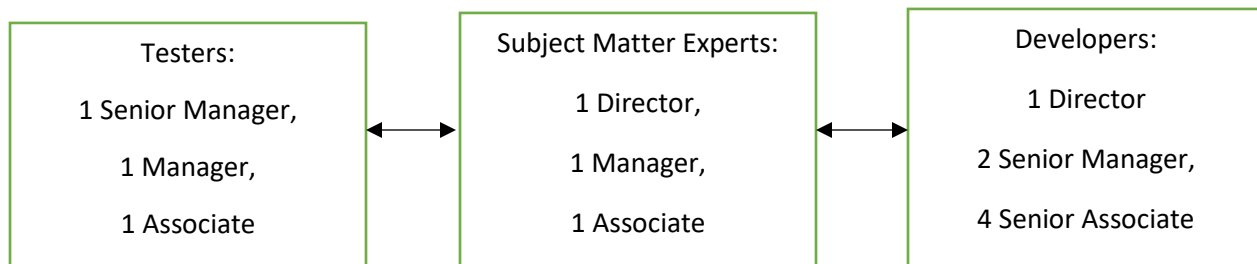
Specifically, for this project case study research, we look into a relationship of the company with a **particular client ABC**. The XYZ company provides service for ABC company for more than 8 years which is an American Transport and Logistics company with 29,000+ employees. The ABC company gives a requirement for project which requires primary advancement of the company's website and working functionality modules which involves work linked with 6 different live website features integrated within its functionality. So, project optimization needs to be handled with care, developed with utmost technical intelligence, and security even before production and testing. There are talented 134 software engineers who are part of the project as software developers, business analysts, testers, and few other teams in offshore. There are 13 other team members in the onsite. There are other 10 members working from third party for OpEx Team supporting the other software support system.

TEAM MEMBERS PROFILE

OFFSHORE: [134 Software Engineers]



ONSITE: [13 Software Engineers]



Scenario:

The client team is in a different country with time difference of 12hrs. The whole team is working for a project with a project deadline of 1 year. In order to make the project work easily with sequential critical path, the project is divided into 4 different modules of a team. While upgrading an existing software for the company which is 25 years old that follows very old working functionality that links live 6 different software's website for its functionality, the SME's decide to ask the client for creating a new software with latest features that links remaining 5 existing software websites. But for doing so, the management needs to build a quality team establishing policies and procedures, defining job descriptions, and recruiting talented team members to perform tasks creatively.

The onsite team persuaded the client to get the work done within 1year with a budget of \$3Million USD for getting the work done in India where currency value is equivalent to \$1USD= Rs.75.00/-. This makes it easy for the company to get the best on lower budgets rather than developing it in US. Below is the approximate planning of budget scattered.

Offshore (In INR) Rs.75.00=\$1.00	Onsite (In USD)	Third Party (In INR) Rs.75.00=\$1.00
PAT- 25,000*32= Rs. 800,000	T: 1 Senior Manager: 100,000 1 Manager: 90,000 1 Associate: 75,000	10 well talented full dedicated employees for 3 rd party.
PA- 30,000*46= Rs. 1,380,000		
Associates- 40,000*35=Rs.1,400,000		
SA- Rs. 55,000*9= Rs.495,000	SME: 1 Director: \$110,000 1 Manager: \$100,000 1 Associate: \$85000	Resources: \$0.5M
Mgr-60,000*4= Rs. 240,000		
SM-80,000*4= Rs. 320,000		
Director-100,000*3= Rs. 300,000	D: 1 Director: \$120,000 2 SM: \$105,000*2= \$210,000 4 SA: \$100,000*4= \$400,000	
4,935,000 → 5,000,000 →5M INR = \$70,000 \$70,000*12→\$1M/year		
\$1M USD/year		
	\$1,290,000 → 1.3M → \$1.5M USD/year	\$0.5M USD/year

Issues:

The team is facing many unexpected hurdles from the beginning and are not able to fulfill any deadlines and instead facing many escalations within each module of the team losing 37 talented employees in the process of project completion including onsite and offshore of the company, tragically including one suicide in the onsite team.

This project would answer the questions below in improvising efficient methods in the organizations for betterment of the company.

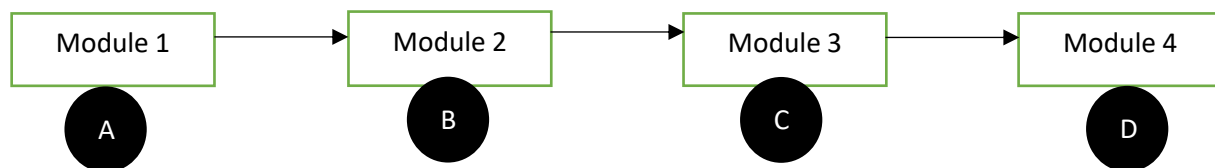
1. How to set a conducive work environment for all workers and retain the talented employees in the company (consider in-person environments) but not just by luring in providing rewards or salary hike alone?
2. Many companies have huge communication stagnancy, considering the virtually working teams in situations like Covid-19, what are the possible ways to maintain the right level of communication bridge between clients, stakeholders, onsite and offshore considering time zone issues as well?
3. Reputed companies tend to follow stipulated norms and traditional methods in working on a project that leads to management's inefficiency in facing unexpected challenges. Are there any new methodologies which could be implemented, considering the problems with misleading requirement obscurity?
4. In a service-based company, how can one define the relationship with the client and the company's SME's for a long retaining happy relationship with each other?
5. In the middle of an unexpected crisis, how to manage a team working in different location and which management style gets the best from the new employees ramped up in the middle of the project ?
6. Are you satisfied with company's deadlines persuaded and budget planned by the management? If yes, were the project modelling techniques effective? If No, Why?

CASE STUDY ANALYSIS

CHALLENGES-CAUSES

DIVISION OF WORK ALLOCATION:

There are 4 modules in the project each having different difficulty and pre-requirement needs. There are nearly 10-15 employees working in each module in the beginning and where few modules will have high work burden, and few doesn't while few modules will barely have 5 employees. There are different category of employees put in different modules and they only work towards their use case requirements. The path of the workflow is as follows.



But the work is allocated to all employees in various modules and work is expected to be completed simultaneously. As the difficulty of each module is different and node B, C and D needs pre-requirement from previous nodes, the expectation of equal level of work completion from all teams at the same time is quite an unwise idea. Since the module 2,3 and 4 employees needs data from previous modules while understanding the requirements or writing test cases or developing UI/UX understanding or developing codes that fetches previous codes, the efficiency in KT is low. Also, there are real risks involved in not distributing the workload in an equitable way. If high performers are allowed to overworkⁱ, the management will lose them because they will start to resent the fact that they're doing more. Similarly, they will lose interest if the work is taken away from employees who are slower.

Since the scope is quite incomplete and unsure in the beginning, asking employees in other modules to still work without requirement clarity. Instead, the management could've allowed few of each team to work in first modules and shifted to respective modules for better clarity and understanding of the various project stages and technical details of the module that will be helpful for integration phase of the project. The critical path method is not used which makes it complete waste of time, improper budgeting, and unstable without backup plans. For a big project, management should definitely have planned for backups, float, lead, and lag duration to identify and prioritize the precedence diagramming methodⁱⁱ.

COMMUNICATION STAGNANCY:

The 144 employees working offshore work at the same timing but live in different geographical location. And onsite people have a time gap of 12hrs. The requirement obscurity mainly occurred due to communication lag and inefficient logging of understanding document. The use cases that contain the requirement needs of the client is being updated at least for first 5months that shows the inefficiency of stakeholders, SME's, and client's unsure scope. When knowledge is transferred, it's always good to have RKT for clarification and recording the understanding in the SharePoint which can be shared for offshore, team members, and for new joiners while project is ramped up in different phase of the project. Especially while the requirement gets updated during the course of first 6months of the project, it's all about the effective communication that implicates the right modification in work right away for all employees and work moves sufficiently faster.

Jumping into the project without clear goalsⁱⁱⁱ is one of the biggest challenge in a project, especially in a complex project with less budget. Since members of each module were working within their own module, no one knew a proper model of overall working of project which made a huge lag in project flow understanding. Entrusting the use cases alone and being oblivious of overall understanding lead to rework. It would be always efficient in recording updates and overall clear flow of project in Project management software. Instead, the project always had updates and communication over phone, emails and any online messengers which are the few methods of poor communication resulting in greater impacts later in project ^{iv}cycle.

REQUIREMENT OBSCURITY:

The progressive elaboration approach should have been followed to define project requirement. Business requirements should be been drilled down to clear understanding and technical approach, finding appropriate solutions that satisfy the project needs. This way, the right approach to deal the project would have known rather than opting for Waterfall method without any base of proper deliverable or ^vcustomer expects which lead the project be completed over budget and completed behind schedule.

The project has 6 live software's linked to the current project handled by third party OpEx team. So, unless and until the requirement is prompt, the tools, and techniques to merge and

link the existing application design can't be figured out which delays the entire process of completion.

IMPRACTICAL DEADLINES:

Unrealistic deadlines is like recipe for disaster in IT projects. The SME-Client relationship should always speak open criteria and clear objectives that fulfills the employees and clients benefiting both the ends. Many ^{vi}milestones are dependent based on the deliverables been told. It's always better to express the concern upfront and over-deliver later than keep quiet and cause last minute chaos. This project had requirement update and changes for first six months in a Waterfall model which definitely implies an extension of deadlines at least for few more months for best output. As test data, third party tier, integration of very old existing system and new system is definitely a tedious process and takes more time, adjustment of triple constraints should have been done. ^{vii}The triple constraints such as time, cost and scope should have been adjusted in alignment. All projects need some time and cost to create the deliverables agreed to in the project scope.

Since the management team failed to persuade and say NO^{viii} to impossible expectations from the beginning, the employees were working for nearly 14-16 hours per day for nearly a year and had to do much rework in the later part of the project again seeing all their previous efforts went vain, the job satisfaction and dedication in work tend to reduce. The worst part of working overtime for one whole year is working without any extra pay. Expecting all employees to devote their complete personal time without any entertainment and personal life is not a best option for a corporate that values employees welfare and loyalty.

MANAGEMENT'S INEFFICIENCY:

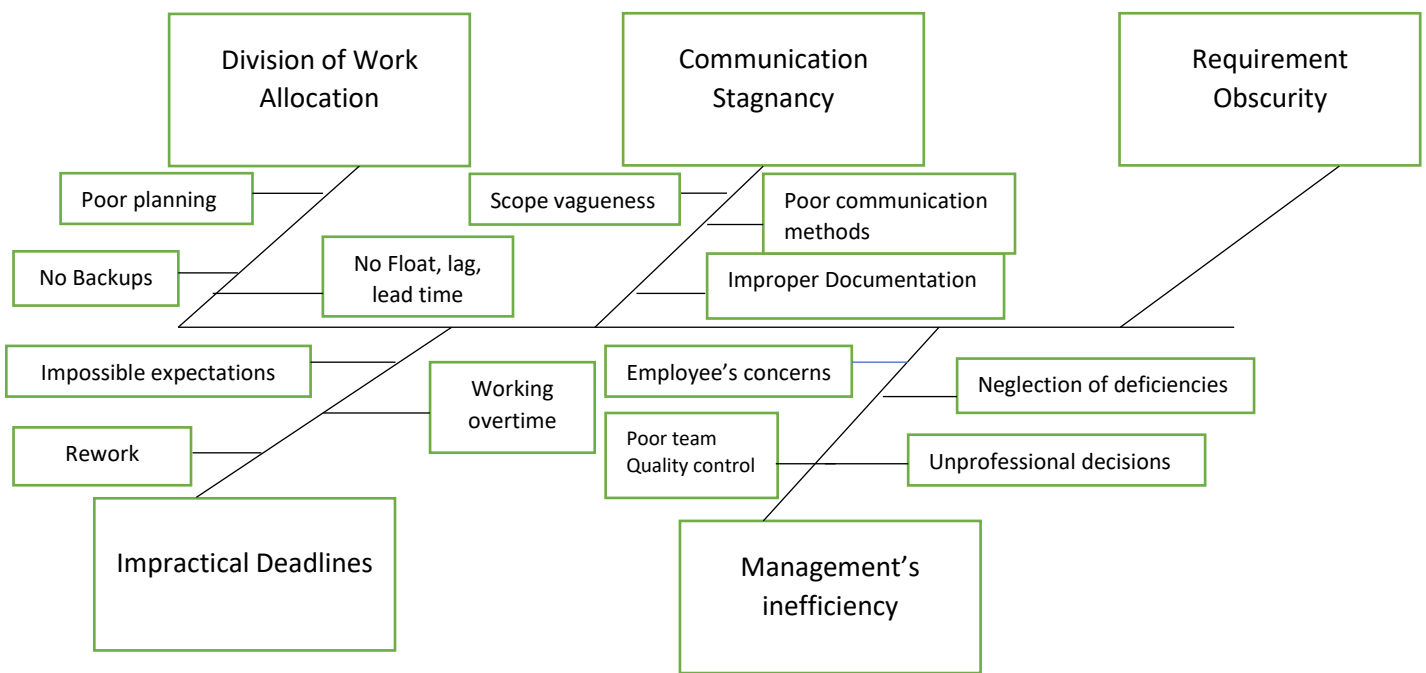
The management's inefficiency is distinctly visible through many daunting deliverables, and incapability in retaining its valuable employees. Losing 37 valuable employees within a year from one single project is a big escalation within a company. Improper planning, neglection of resource deficiencies or redundancies, inefficient option of methodologies chosen, unplanned contingencies shows a red alert in budget waste and time spent on rework and relearning.

Appropriate strategies^{ix} are not devised for work methods. Say for example, functional test cases were created. But due to unclear foreseeing, on the day of compound testing, rework of

complete functional test cases were done just to test UI/UX design build. Confused and technically unprofessional decisions are the major challenges of misaligned work structure in this project.

Poor team quality control and supervision^x is a main factor for employees to submit their papers in for resignation. Even when tight schedules and deadlines exist, the supervisors and management overseeing employee's welfare will look out for possible retainment of resources. If the management feels the respective employee leaves the company due to just poor scheduling and tight timelines, negotiation and persuasion by HR and team makes it much more valuable and comfortable.

Fish Bone Diagram:



These challenges will be addressed with right strategies below that changes the efficiency of the management and brings in change that can be carried along for various projects in different aspects of work ethics in the quality of management in IT industry.

RECOMMENDATIONS

1. How to set a conducive work environment for all workers and retain the talented employees in the company (consider in-person environments) but not just by luring in providing rewards or salary hike alone?

As a management head in leading employees and handling many associates, one should always be emotionally intelligent to study human's intrinsic behavior working with them. As per Maslow's hierarchy of needs^{xi}, each individual has hierarchy of both deficiency needs and growth needs. For a talented employee to work efficiently, their motivation level increases only when their deficient needs such as physiological, safety, belonging and esteem needs are satisfied and fulfilled. Life experiences, including divorce and loss of a job, may cause an individual to fluctuate between levels of the hierarchy. Therefore, not everyone will move through the hierarchy in a unidirectional manner but may move back and forth between the different types of needs. As a supervisor or team lead, one should analyze and know at least a little of every employee's background to satisfy their basic concerns and establish a trustworthy relationship ensuring the employee's welfare. This gives them a satisfaction of comfortable workspace and self-actualizing motivation.

In a project with many employees working towards a goal with different skillset, the associates who lead them should be mindful to a person's availability and bandwidth^{xii} of their capacity in allocating the work. Evaluate each employee's strength and weaknesses^{xiii} and determine whether each person's work has aligned with their abilities. In a team with history knowledge of each employee, a supervisor can activate their team^{xiv} by assigning their tasks to be done to the employees and consider the employee evaluations and conversations held with the employees when decisions regarding delegations are made for these responsibilities.

Allocating work across teams equally in a complex project takes a professional dynamics to share it accordingly. Having individual conversations with team members about their share of the collective workload is critical to ensuring employees stay motivated and engaged. "You have to make time for one-on-ones," says Morgenstern.^{xv} Before leaning on yet another profile of work from a person, management needs to acknowledge that he or she 'may have a lot on their plate' and then demonstrate the extent you rely on this person. To the star performers with heavy workload and more exposure, you can involve the person with roles such as training another person with a work

X where they can get different learning curve and stay motivated rather than looking for more opportunities that takes others to work on.

As a management member, the manager or supervisor can have an assessment checklist for each person and accordingly coach them for commitment, influence the person and bring the best out of the employees by unlocking their complete potential rather than their efforts left unacknowledged and doubts unguided.^{xvi} “One minute Praise” for catching them doing something right always brightens the employee^{xvii} and a “One minute Reprimand” can be used when needed for poor performance along with acknowledgement of their best works gives them an involvement and dedication subconsciously. This gives them a conducive environment where their personal and career needs are fulfilled which brings them even through the tough and difficult phase of the projects.

2. Many companies have huge communication stagnancy, considering the virtually working teams in situations like Covid-19, what are the possible ways to maintain the right level of communication bridge between clients, stakeholders, onsite and offshore considering time zone issues as well?

As a part of the management, most of the time, the manager would be thinking about what matters to the customers and shareholders or how to do get the best outcomes or how to do it a way that doesn't burn out the people, or how to use his/her resources wisely or how to efficiently get more out of underperforming resources. But the real risks lies in communicating the workload and delivering the requirement clearly and managing the conflicts and misunderstandings during a crisis in a team. Considering virtual teams, communication, collaboration, and differences across virtual employees across globe takes in lot more tactics and handling them. ^{xviii}If the high performers are allowed to overwork, they resent the fact that they're doing more and if people who are slower will lose interest if work is taken away from them and people who have big aspirations and goals will get offended if not given right opportunities.

While working with virtual teams across globe with different time zones, recording the work and sharing the information through a platform is mandatory for requirement and knowledge transfer. The documentation of KT document and clarity of use case understanding needs to be recorded for circulating the feasibility of work done without rework or delay. Also,

while writing the use case document, the SME's need to maintain a standard requirement document language to understand the workflow of a project within each use cases.^{xix} And document should not be handed off to offshore before verification completing a quality check. This leads to unnecessary confusions and misleading of information as employees work in various zones. Requirements Clarity Map can be used to visually keep track of scope evolution over time.^{xx} The structured presentation facilitates the meeting with stakeholders, drives backlog refinements and adds a transparency layer to the scope in general.

Working in various demographic set up, the supervisor needs to identify if any redundancy in the current work responsibilities allotted where two people work for same deliverable to be done. Therefore, the needs to be a clearly articulated and repeated value that everyone ought to be equally contributing his or her talents, skills and energy should be emphasized.

Handling a virtual team needs right assertiveness^{xxi}. A formal connection will rather provoke a cooperative tendency than competitive spirit between them. Rather than abruptly assigning random tasks, based on different uniqueness, it will be good to club people so that a bond is established between small group of people working virtually. Creating some engaged works for interaction will create a mutual trust and contribution of work from everyone in the small crew residing in different locations organizing work accordingly. This creates a sense of togetherness and trust on each other and getting to know each other's unique specialty. This helps in evaluating the team work as well as create bonds between each other.

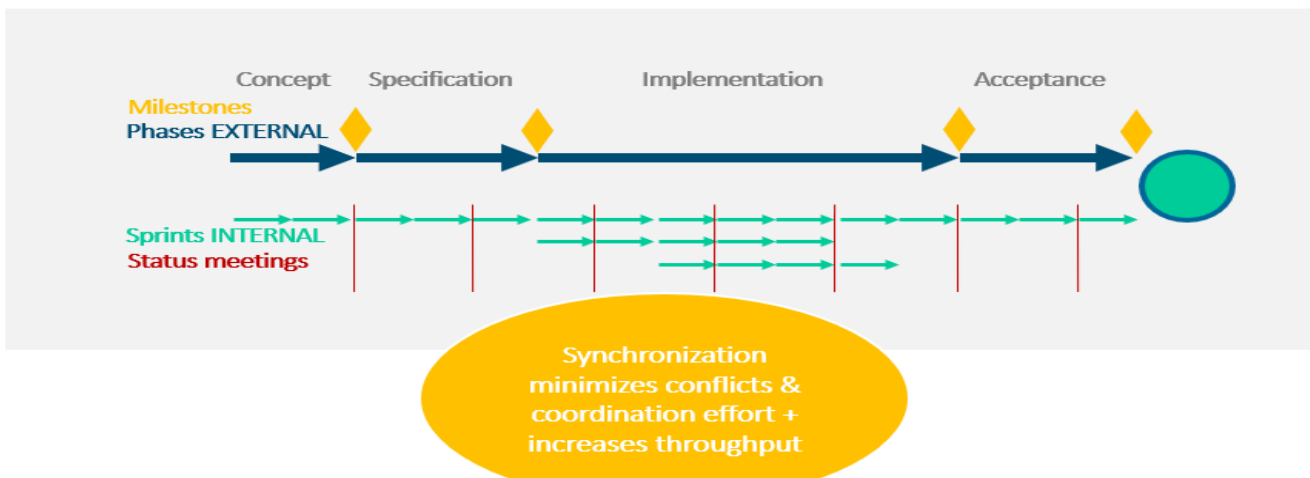
According to Thomas Kilmann, conflicts^{xxii} can be opportunities for positive growth. Accommodating, avoiding, collaboration, competing and compromising are 5 reactions in a team where members in a team face the conflict and learn either one of these based on their personality. Being the part of management, be a mediator and sometimes provoking competency with collaboration will bring solutions that can't be won be arguments or avoidances. Based on the different phases of project, it differs. The manager needs to follow the team members and ensure the team's peace and smooth workability.

3. Reputed companies tend to follow stipulated norms and traditional methods in working on a project that leads to management’s inefficiency in facing unexpected challenges. Are there any new methodologies which could be implemented, considering the problems with misleading requirement obscurity?

Traditional project management is an established methodology where projects run in a sequential cycle. It follows a fixed sequence: initiation, planning, execution, monitoring, and closure. The traditional project management approach puts special emphasis on linear processes, documentation, upfront planning, and prioritization. ^{xxiii}As per the traditional waterfall method, time and budget are variable and requirements are fixed due to which it often faces budget and timeline issues. In a complex project, requirements can’t be practically fixed in the beginning.

Modern methods like Agile approach heavily relies on teamwork, collaboration, time boxing tasks, and the flexibility to respond to change as quickly as possible. The agile methodology is iterative, interactive, documentation is comprehensive, but it can be applied only to projects which are small and medium scaled projects. Comparatively, every single process is clearly defined and planned from the beginning of the project in traditional approach and the project has to be completed within the estimated time and budget which becomes vague and very hard in projects with requirements obscurity.

^{xxiv}Combining traditional methods from some of the subprojects with elements of the agile methodology (such as scrum) lets the organizations take advantage of the best of both world to find the best suited to their individual needs. Concurrently using both can be done by high level planning of traditional approach and detailed planning with agile approach. This hybrid method can also be called as Agifall method.



The aim of Agifall method is to increase the speed, decrease the cost and improve the quality. Agifall approaches planning in a user-centric manner and use quick prototype tools. It carries the planning and requirements activities of waterfall in an agile manner by breaking them into user stories and prioritizing them in the sprint. ^{xxv}In the Agifall method, you don't wait for one phase to complete before starting the next phase; rather you begin the next phase as soon as you can. This means that you can begin independent development of some modules or components while the planning phase is still in progress. The development phase follows the usual agile principles. Agifall model suggests graphic designing and testing in parallel with the development phase. The evolution of techniques such as backlog management instead of comprehensive documentation is one of the best examples of successful adoption of hybrid model. The hybrid model is best suited for projects which demand the team to deliver constantly changing requirements within a limited time frame.

Overall, the organization needs a balanced approach for running their organization systematically without any whole blunders losing employees or accused of work pressure suicides. ^{xxvi}The company can adopt Malcolm Baldrige Quality self-assessment which provides a way to evaluate how well the organization is meeting its goals and objectives. Some of the benefits of this quality self-assessment are

- Identify successes and opportunities for improvement
- Jump-start a change initiative
- Energize the workforce
- Assess performance against the competition
- Align performance against the competition
- Align resources with strategic objectives.

These methods and paradigm implementations in the organization brings a change in working atmosphere as well as technical developments and flexibility for adaptability. This implementation improves the overall management's efficiency in handling uncertain situations with backup plans and strategies.

4. In a service-based company, how can one define the relationship with the client and the company's SME's for a long retaining happy relationship with each other?

Service based companies are generally inclined towards the customers expectation and satisfaction of clients ignoring employee's satisfaction which brings a negative feedback affecting the entire flow. The relationship with clients and SME's are very important for a project to deliver successful output and complete the phases with comfortable paced work environment. As a project manager or onsite team head, one knows that delays and missed milestone on regular basis can have a cascading effect on the overall project delivery.^{xxvii} It seems that however in the modern professional culture, being nice and avoiding conflicts for as long as possible appears to have become more important than offering good customer service. It is exactly this lack of proactiveness that breaks trust pointing to poor work ethics and ultimately contributes to low customer retention rates. As culture and tendency of next generation of employees change, I believe that rules should be altered in such a way that makes employees feel happy and contented in their needs that make them work for the company on satisfying the client's need. Instead of blindly expecting output from employees without providing any privileges, I believe organization should bring a paradigm change. To avoid customer frustrations when communicating a delay, simple steps can be taken to increase transparency and trust.

^{xxviii}Verbal communication is best used something critical has to be discussed in detail or when someone has to be complimented or reprimanded or when first-hand information is needed to be documented. Few methods that can smoothen the relationships between company and clients are:

- Letting the customer know ASAP: As a part of management team, it's always wise to consult with internal teams and letting the customer know as soon as there's a risk for delay. It's always better to express the concern upfront and over-deliver later, than keeping quiet and cause last minute chaos.
- Maintaining the project dynamics: Pointing fingers is a setback. Never blame reasons or throw the team member under the bus. Rather than giving excuses over a long email or blaming the customer's for their not submitting revised updates, it's better to develop methods to capture and maintain customer's commitment.
- Being upfront about the solutions: As an active participant of the project, your customer is more likely to accept the delay and the new changes if they understand your work style and trust your decision-making process. Communicating simple things like changes in shipping carrier, revised

resource allocation, or giving solutions for de-scoping or re-prioritizing deliverables are all good techniques to bring the project on track that should be communicated with transparency.

- Being clear with updates and timeline changes: Once the delay is explained constructively, the solutions and new timeline are presented in a clear way, ensuring the updates and feedback to the customer is important. The updates with daily basis verifying the work done can give feedback confirming with the work confirmation avoiding rework and avoiding last minute extra work and pushing the employees to work overtime. The frank and pleasant conversation regards to offshore employees difficulty to the client can bring a feasible change to avoid working overtime for a longer period time losing their work-life balance.

5. In the middle of an unexpected crisis, how to manage a team working in different location and which management style gets the best from the new employees ramped up in the project ?

Considering a project that collaborates team members from different locations, Mr. Brian Ellis has mentioned 10 rules for crisis management^{xxx} that helps remove all barriers and help everyone work together. Rather than recruiting resources from another account, adding resources working in less priority project within the account can be added to the priority project which gives the team members a sense of work comfortability knowing the strengths and weakness of the other. Always having a backup for a problems is a best choice to stay on the boat. Say, for example, considering a project, couple of them can take absence due to sickness, and the work should be completed by the remaining available group wherein it requires the knowledge of the respective work. So, training the team about overall work is important. And times when Divide and Conquer is needed, the team head should be able to communicate with everyone accordingly. Sharing a platform for communication is mandatory for remote work management.

Strategies and structure of a team have a reciprocal relationship and if aligned properly, performance improves. This relationship highlights the interconnectedness between strategy formulation and strategy implementation.^{xxx}Structure of the team can influence strategies by constraining potential alternatives considered, firms must be vigilant in their efforts to verify how their structure of management and team not only affects implementation of chosen strategies, but also the limits the structure placed on possible future strategies.

There are various types of management styles that can be effective in managing employees such as ^{xxx}persuasive style, consultative style, transformational style, coaching style and delegative management style. Using these styles accordingly in various stages of project helps to nurture the team to high performance and eradicate all hindrances within. According to Tuckman's model^{xxxii}, a project has five phases such as forming, storming, norming, performing and adjourning stage wherein the air would be different in each stage within the team and the management needs to deal them respectively.

During the forming phase, the individuals will be unsure of the team's purpose, how they fit in, and whether they'll work well with one another. However, they will be looking for a team leader for direction where they get to know their team members. In this phase, delegative management style would fit as manager assigns tasks and then the employees are empowered to do their work as they see fit. After the task is complete, the manager steps back in to review the work and give advice about how to improve in future steps. Here, innovation and creativity are fostered, especially in organizations with highly skilled workers.

During the storming phase, people push each other's established boundaries. At this stage, team members may challenge your authority or even management style or team's mission. In this phase, persuasive management style would fit well as managers can use their persuasive skills to convince employees that the unilateral decisions taken by management implements are the good of the team, department, and organization. It's more of inviting questions and explaining the decision-making process with rationale behind the policies. It establishes a higher level of trust between management and employees enabling them to accept management's decisions and providing them motivation to work more effectively.

During the norming phase, the people start to resolve their differences, appreciate one another's strengths, and respect your authority as a leader. Now, they know one another better, asking for help and offering constructive feedback. In this phase, managers coach their employees and consider their employees as valued members of their team. The managers guide their team, putting their team's professional development at the forefront of their priorities wanting to promote learning, upskilling, and growing in workplace. Managers build a strong bond with their employees making them coaches.

During the performing stage, the team is in a flow to perform with its full potential. With hard work and structured processes, the team is likely to achieve its goals effectively. In this

phase, transformational management style focuses on efforts of the employee by inspiring their staff to greater accomplishments through encouragement, pushing them past their comfort zones regularly, and consistently motivating their teams to raise their bar for achievements. Innovation is increased, and employees will more easily adapt to change, disruptions, or challenging projects. Creative thinking is encouraged, and problem-solving and product development will benefit from the increased flexibility of the staff.

During this stage of disbanding/adjourning, managers can have a consultative management style asking for the opinions and thoughts of their teams, consulting their viewpoints of every members of their team and this builds comfortability within teams. And the management grows with the team, as they learn from ideas, opinions, and experience of the employees they lead.

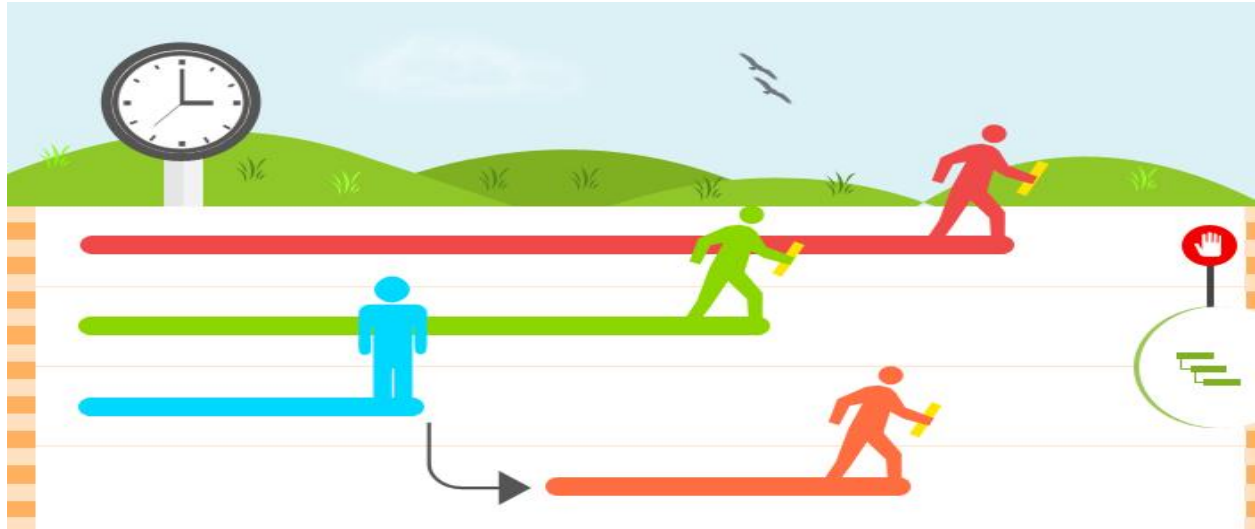
Therefore, as a part of management team, the employees should be identified for who will be able to handle more responsibility than they currently have. Trusting the staff with greater responsibility helps motivate them.

6. Are you satisfied with company's deadlines persuaded and budget planned by the management? If yes, were the project modelling techniques effective? If No, Why?

I am satisfied with the deadlines and budget persuaded by the management. Considering around 160 employees working for a project for a year, if effective methods were followed, reaching the deadline would be nominal. But definitely if critical path method is planned, it is wrong. No backups were planned as well. Rework of test cases were done. This displays the techniques adopted are completely wrong. As discussed earlier, the Waterfall methodology adopted was not the best fit option as the requirement changes were happening until first 4-6 months of the project. The critical path method allows you to schedule tasks and activities within a project.^{xxxiii} This method is particularly suitable for complex projects having large number of interdependent activities. Though the basic breakdown of project has happened of splitting the project into 4 modules, the interdependency, the subtask^{xxxiv}, time required to complete each task was not planned accordingly. And calculating a project which has a year, float/slack should have been kept within each module, as well as across each module so that the employees will have time to breathe and complete in a steady pace rather than stressing for overtime whole having deficiency of resources or requirements. Hybrid model approach should have been adopted so that each module can work simultaneously but verify the codes and test cases with

clients then and there rather than complete documentation followed up in traditional approach.

Drawing a network diagram illustrates the project workflow and relation between tasks/activities. This helps the management and employees to keep in check their work and knowledge of overall workflow.



The critical tasks/activities have to be identified and located on the network diagram so that the management can identify the critical path for the project based on the sequence which has the highest cumulative time to complete the work. ^{xxxv}In that way, start of a particular activity can be delayed without delaying the project completion time, called as float. Always keeping a lag lapse days helps in keeping up a backup days to complete in any situations in case. Accelerated work completion of lead, helps in acknowledging people for their work and dependency and associated constraints.

Since each module has at least 10-25 use cases separately, knowing the weightage of each use case is precisely mandatory to plan accordingly for a work to be done. Planning in a critical path method is absolutely essential for the project to plan a scheduled working hours for the employees so that working hours don't exceed unnecessarily although the year and expecting the employees to work without any extra pay. So, efficient planning can manage this budget whereas inefficient planning needs more budget and deadlines to handle all hindrances and resources loss. Here, we can see that the risks are taken accordingly based on persuasion by the onsite team and clients.

CONCLUSION

With effective strategy implementation, the team can be handled efficiently looking through the welfare of the employees retaining all talented ones and not wasting away any invested potential in critical resources. Thus, my hypothesis is true where following management techniques can retain employees, maintain the efficiency, and brand name for the company.

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