

A STUDY ON EFFECTIVENESS OF PROJECT MANAGEMENT AT IMIND TECHNOLOGIES

Submitted in partial fulfillment of the requirements for the award of

Master of Business Administration

by

BIBIANA B
Register No. 39410037



SCHOOL OF BUSINESS ADMINISTRATION

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
Jeppiaar Nagar, RAJIV GANDHI SALAI, CHENNAI - 600 119**

April - 2021



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Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119**

www.sathyabama.ac.in

SCHOOL OF BUSINESS ADMINISTRATION

BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **BIBIANA B 39410037** who have done the Project work entitled **A STUDY ON EFFECTIVENESS OF PROJECT MANAGEMENT AT IMIND TECHNOLOGIES** under my supervision from **December 2020 to March 2021**.

Ms. KAVITHA RAJAYOGAN
Internal Guide

Mr. V. Kumar
External Guide

Dr. BHUVANESWARI G.
Dean – School of Business Administration

Submitted for Viva voce Examination held on 09/03/2021.

Internal Examiner

External Examiner



26/03/2021

TO WHOM SOEVER IT MAY CONCERN

This is to certify that **Ms. BIBIANA .B (Reg no: 39410037)** a student of **SATHYABAMA INSTITUTE OF SCIENCE AND TECHNOLOGY**, Chennai pursuing MBA course final year has successfully completed her project in our organization. Duration from December 2020 to March 2021.

Title: A Study on Effectiveness of Project Management at IMind Technologies.

We wish all the very best for her future endeavors.



For IMind Technologies
Kumar .V

IMIND TECHNOLOGIES

Registered office: No.101, A Block, 1st Street, 3rd Main Road, Annanagar, Chennai 600 040.
Phone: 044 42171724, www.imindtech.in

DECLARATION

I **BIBIANA B (39410037)** hereby declare that the Project Report **entitled A STUDY ON EFFECTIVENESS OF PROJECT MANAGEMENT AT IMIND TECHNOLOGIES, CHENNAI** done by me under the guidance of **MS. KAVITHA RAJAYOGAN** and **MR.V.KUMAR** at **IMind Technologies, Annanagar, Chennai-600040** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

DATE

PLACE

BIBIANA B

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BIBIANA B

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ABSTRACT

The project success is the most mentioned topic of the project management, typically it's noted regarding the influence of project management success on the success of projects approaching. Despite the huge array of project management literature and trainings out there, project management methodologies fail to deliver a consistent project success. This analysis analyses the study of project management activities trained at IMind technologies-Chennai and therefore, the information of project practitioners are collected. The collected information instructed that the key of prospering comes implementations, however they don't totally utilize modern project management tools and techniques to their capabilities. The influence of project management tools and techniques on project success depends on the practitioners coaching, the temporal order and level of implementation achieved, whereas the human issue plays a vital half for achieving project success.

Here, in this project we have a tendency to discuss regarding the methodologies used and therefore, the practices and training for concluding the project success and delivery rates, the importance of documentations followed at I mind technologies.

Keywords: Project management, Effectiveness, management, data analysis, project, Information technology, Documentation, Project manager.

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CHAPTER 1

INTRODUCTION

1.1 INTRODUCTION OF THE STUDY

Project management effectiveness is most necessary as it refers to the project success. Each the success of the project and also the career path of the project manager will rely upon the operating relationships and expectations established with superior management. to possess an improved management on the project, the project has been split into totally different phases. every section defines the tasks and activities that might to be completed inside specific period. It additionally outlines specific percentage team members are allotted in every section so all resources such that it achieves to their full potential. The implementation of efficient, efficient, and uniform method for manufacturing the key documents that needed to implement a replacement project with success of the project that the use of documentation of project is necessary as an example, these documents would possibly embrace, business cases, project standing reports, and project demand sheets. Thus, the project documentation method outlines a transparent approach for organizing these essential project documents. It says however necessary is project documentation and the way with success the project is enforced by technologies and innovation that can be driven by the team leaders and project managers. Initially, to coach the workers and eminent lead and support in effective completion of comes that however way they're with the project management activities. Here we are going to perceive the methodologies used, impact of project management activities to realize the goals inside the organization within the given time and budget.

1.2 INDUSTRY PROFILE

1.2.1 Information technology in India

Information Technology in India is an industry consisting of two major components IT services and business process outsourcing (BPO). The sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.7% in 2017. According to NASSCOM, the sector aggregated revenues of US\$180 billion in 2019, with export revenue standing at US\$99 billion and domestic revenue at US\$48 billion, growing by over 13%. As of 2020, India's IT workforce accounts for 4.36 million employees. The United States accounts for two-thirds of India's IT services exports.

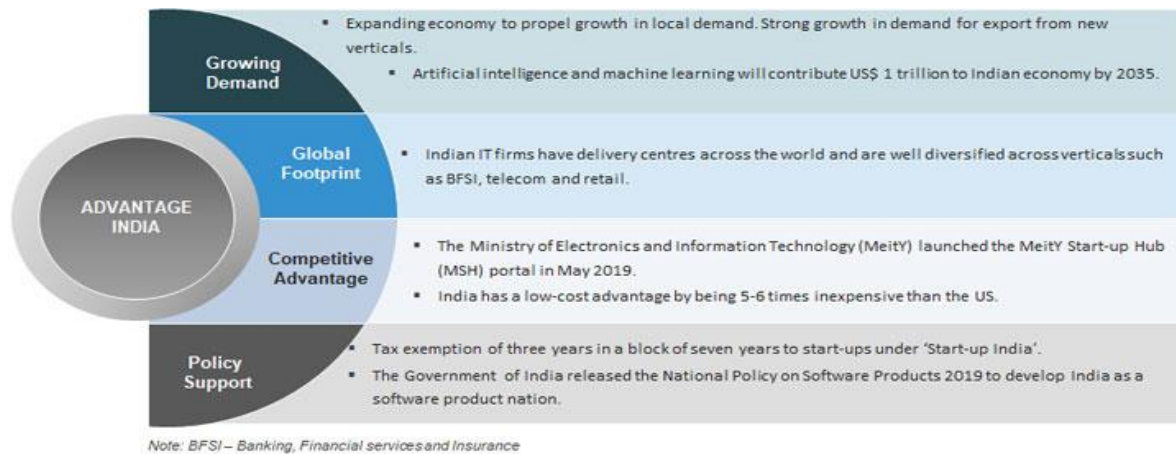


Fig 1.1 Figure representing Advantages in India

The global sourcing market in India continues to grow at a higher pace compared to the IT & BPM industry. India is the leading sourcing destination across the world, accounting for approximately 55 per cent market share of the US\$ 200-250 billion global services sourcing business in 2019-20. Indian IT & BPM companies have set up over 1,000 global delivery centres in about 80 countries across the world. India has become the digital capabilities hub of the world with around 75 per cent of global digital talent present in the country.

1.2.2 Market Size

IT & BPM industry's revenue was estimated at around US\$ 191 billion in FY20, growing at 7.7 per cent y-o-y. It is estimated to reach US\$ 350 billion by 2025. Moreover, revenue from the digital segment is expected to form 38 per cent of the total industry revenue by 2025. Digital economy is estimated to reach Rs 69,89,000 crore (US\$ 1 trillion) by 2025. The domestic revenue of the IT industry was estimated at US\$ 44 billion and export revenue was estimated at US\$ 147 billion in FY20.

Total number of employees grew to 1.02 million cumulatively for four Indian IT majors (including TCS, Infosys, Wipro, HCL Tech) as on December 31, 2019. Indian IT industry employed 205,000 new hires and had 884,000 digitally skilled talent in 2019.

1.2.3 Investments/ Developments

Indian IT's core competencies and strengths have attracted significant investment from major countries. The computer software and hardware sector in India attracted

cumulative Foreign Direct Investment (FDI) inflow worth US\$ 44.91 billion between April 2000 and March 2020. The sector ranked second in FDI inflow as per the data released by Department for Promotion of Industry and Internal Trade (DPIIT).

Leading Indian IT firms like Infosys, Wipro, TCS and Tech Mahindra are diversifying their offerings and showcasing leading ideas in blockchain and artificial intelligence to clients using innovation hubs and research and development centres to create differentiated offerings.

1.2.3.1 Some of the major developments in the Indian IT & BPM sector are as follows

- In May 2020, SirionLabs, a software-as-a-service (SaaS) provider, raised US\$ 44 million as part of its Series C round led by Tiger Global and Avatar Growth Capital.
- PE (private equity) investment in the sector stood at US\$ 11.8 billion across 493 deals in 2019.
- In January 2020, Nippon Telegraph and Telephone, a Japanese tech announced its plans to invest a significant part of its US\$ 7 billion global commitment for data centres business in India over the next four years.
- In February 2020, Tata Consultancy Services bagged a contract worth Rs 10,650 crore (US\$ 1.5 billion) from pharma company Walgreens Boots Alliance.
- UK-based tech consultancy firm, Contino, was acquired by Cognizant.
- In May 2019, Infosys acquired 75 per cent stake in ABN AMRO Bank's subsidiary Stater for US\$ 143.08 million
- In June 2019, Mindtree was acquired by L&T.
- Nasscom has launched an online platform which is aimed at up-skilling over 2 million technology professionals and skilling another 2 million potential employees and students.
- As of February 2020, there were 417 approved SEZs across the country with 274 from IT & BPM and 143 as exporting SEZs.

1.2.4 Government Initiatives

Some of the major initiatives taken by the Government to promote IT & BPM sector in India are as follows

- On May 2019, the Ministry of Electronics and Information Technology (MeitY) launched the MeitY Startup Hub (MSH) portal.
- In February 2019, Government released the National Policy on Software Products 2019 to develop India as a software product nation
- The Government has identified Information Technology as one of 12 champion service sectors for which an action plan is being developed. Also, the Government has set up a Rs 5,000 crore (US\$ 745.82 million) fund for realising the potential of these champion service sectors.
- As part of Union Budget 2018-19, NITI Aayog was to set up a national level programme to enable efforts in AI[^] and leverage AI[^] technology for developing the country.
- In the Interim Budget 2019-20, the Government announced plans to launch a national programme on AI* and setting up of a National AI* portal.
- National Policy on Software Products-2019 was passed by the Union Cabinet to develop India as a software product nation.

1.2.5 Achievements

Following are the achievements of the Government during 2019-20

- About 200 Indian IT firms are present in around 80 countries.
- Total export revenue of the industry is expected to grow 8.1 per cent y-o-y to US\$ 147 billion in FY20. IT & BPM sector accounted for the largest share in the Indian services export at 45 per cent.
- Total number of employees grew to 1.02 million cumulatively for four Indian IT majors (including TCS, Infosys, Wipro, HCL Tech) as on December 31, 2019.
- Indian IT industry employed 205,000 new hires and had 884,000 digitally skilled talent in 2019.

1.2.6 Road Ahead

India is the topmost offshoring destination for IT companies across the world. Having proven its capabilities in delivering both on-shore and off-shore services to global clients, emerging technologies now offer an entire new gamut of opportunities for top IT firms in India. The IT industry is expected to grow to US\$ 350 billion by 2025 and BPM is expected to account for US\$ 50-55 billion of the total revenue.

1.2.7 History

India's IT Services industry was born in Mumbai in 1967 with the creation of Tata Consultancy Services[8] who in 1977 partnered with Burroughs which began India's export of IT services.[9] The first software export zone, SEEPZ – the precursor to the modern-day IT park – was established in Mumbai in 1973. More than 80 percent of the country's software exports were from SEEPZ in the 1980s.

Within 90 days of its establishment, the Task Force produced an extensive background report on the state of technology in India and an IT Action Plan with 108 recommendations. The Task Force could act quickly because it built upon the experience and frustrations of state governments, central government agencies, universities, and the software industry. Much of what it proposed was also consistent with the thinking and recommendations of international bodies like the World Trade Organization (WTO), International Telecommunications Union (ITU), and World Bank. In addition, the Task Force incorporated the experiences of Singapore and other nations, which implemented similar programs. It was less a task of invention than of sparking action on a consensus that had already evolved within the networking community and government.

Regulated VSAT links became visible in 1994.Desai (2006) describes the steps taken to relax regulations on linking in 1991

In 1991 the Department of Electronics broke this impasse, creating a corporation called Software Technology Parks of India (STPI) that, being owned by the government, could provide VSAT communications without breaching its monopoly. STPI set up software technology parks in different cities, each of which provided satellite links to be used by firms; the local link was a wireless radio link. In 1993 the government began to allow individual companies their own dedicated links, which

allowed work done in India to be transmitted abroad directly. Indian firms soon convinced their American customers that a satellite link was as reliable as a team of programmers working in the clients' office.

A joint EU-India group of scholars was formed on 23 November 2001 to further promote joint research and development. On 25 June 2002, India and the European Union agreed to bilateral cooperation in the field of science and technology. India holds observer status at CERN, while a joint India-EU Software Education and Development Center will be located in Bangalore.

1.3 COMPANY PROFILE

1.3.1 IMIND TECHNOLOGIES-CHENNAI

Designing, building and integrating cutting-edge eBusiness solutions that deliver profitable online experiences can be a puzzling challenge. From talent recruitment to full scale application integration, we provide the missing components that you need to complete your puzzle, and make your vision a reality.

1.3.1.1 MISSION

We aim to emerge as one of the biggest and most imperative technology solution providers globally and our team is constantly working towards this target.

1.3.1.2 VISION

With Creative thoughts and unique approaches to help Business Houses & individuals to Upgrade and Promote their business in the Age of Information Technology globally. iMind Solutions, since 2006 with the goal of providing exceptional quality and cost effective IT integration services to web enabled businesses globally. As an eBusiness integrator we provide a broad range of project management, site planning, integration installation and customization services, always taking a client-focused approach. We have chosen a strategic global model combining the best of onshore and offshore software development to deliver premium quality services and products from a very experienced team with deep technical knowledge and expertise. The iMind development team have 25 years combined experience with all facets of eBusiness design, development, integration and deployment initiatives.

All iMind consultants are Sun Certified Java Programmers and are ATG Certified. As ATG platform specialists our consultants have delivered a wide array of ATG based e-commerce implementations and Java and J2EE projects; and have experience with Oracle, MS SQL, My SQL, and DB2, as well as CRM and ERP integrations including SAP, Siebel.

iMind clients include Nike and Herbalife with large scale ATG based eCommerce implementations; Proctor and Gamble's People's Choice Awards for Resource Interactive and resource providers including ATG Professional Services, Clarity Resource Group and Optima Technologies. iMind consultants have worked on implementations for American Eagle Outfitters, Fannie Mae and Cushman & Wakefield and are known for their verve, spot-on professionalism and client centric partnering.

The iMind project management process instils confidence and trust in clients they provide the technical knowledge and the blueprint, milestones and communication to keep the client involved, informed and better able to manage their business planning and deliverables schedules. Standard protocol is that we employ high levels of security measures to safeguard the client's intellectual property, proprietary software and programming specifications. Clients retain full ownership of all intellectual property rights and software source code throughout the development process and at the completion of the project.

Cloud computing is a general term for anything that involves delivering hosted services over the Internet. A cloud service has three distinct characteristics that differentiate it from traditional hosting. It is sold on demand, typically by the minute or the hour. They make sense that the generation are growth have varied in fact.

1) It is elastic – a user can have as much or as little of a service as they want at any given time and the output has given the perfect time for the development in the lifecycle and such that the effects of computing through varied products have been increased a lot. Much more cloud computing services are very bright and creates more million jobs in the country.

2) The service is fully managed by the provider (the consumer needs nothing but a personal computer and Internet access)

Cloud Computing Services

These services are broadly divided into three categories Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS). The name cloud computing was inspired by the cloud symbol that's often used to represent the Internet inflow charts and diagrams.

Infrastructure-as-a-Service like Amazon Web Services provides virtual server instances with unique IP addresses and blocks of storage on demand. Customers use the provider's application program interface (API) to start, stop, access and configure their virtual servers and storage. In the enterprise, cloud computing allows a company to pay for only as much capacity as is needed, and bring more online as soon as required. Because this pay-for-what-you-use model resembles the way electricity, fuel and water are consumed, it's sometimes referred to as utility computing.

1.2 NEED FOR THE STUDY

Software Project implementation success is about more than the mechanics of project-integration management and of the process groups and knowledge areas. Contrary to what seems to be the current practice advocated by PM and others,

- To understand project management processes must and consider how to engage employees from the beginning.
- To find out the effect of project management on the productivity in software companies.
- To know the companies usage software development lifecycle and to achieve the goals within the given time and budget.

1.3 OBJECTIVES OF THE STUDY

PRIMARY OBJECTIVE

- To study on the effectiveness of project management followed at IMind Technology, Chennai.

SECONDARY OBJECTIVES

- To understand the most preferred project management methods by the employees in IMind Technology.
- To know the impact created by the project managers in the project management.
- To find the necessity of project management software and the documentation process.

CHAPTER 2

REVIEW OF LITERATURE

Abdullah Saeed Bani Ali, William H. Money (2005), This study surveyed 497 project management software users in a wide variety of project driven organizations to examine the relationships among computer self-efficacy, information quality, system functionality, ease of use, project complexity, performance impact, organization size, project size, and user education, training and experience level. The findings indicated that information quality and project complexity are the dominant factors in explaining the levels of perceived system utilization; system functionality and ease of use have a significant effect on software usage; and that a strong relationship exists between perceptions of usage of software and project manager's performance.

Abdallah Lalmi,^aGabriela Fernandes^b,Sassi Boudemagh Souad. (2021), The commonly adopted project management approach is the traditional plan-driven model, which sometimes is not the most appropriate approach to complex construction projects subject to successive changes, where more agile approaches might be more adequate. The objective of this paper is to provide a hybrid project management approach that not only draws on traditional project management approaches, but also on agile and lean ones, and that seeks to promote change, boost interaction with the client and increase project value, by using the agile approach component to increase the probability of success of construction projects; and to eliminate waste by embodying the lean approach component. The paper thoroughly reviews the available literature on different project management approaches and proposes a hybrid project management model for construction projects, presenting and discussing key traditional, agile and lean practices.

Amgad Badewi(2016), explicit Benefits management (BM) and project management (PM) are two interrelated approaches to the success of projects. The literature, however, still lacks empirical evidence of the value of applying BM practices. Hence, it is aimed to test the impact of BM practices on the success of investments in projects, taking into consideration the impact of PM practices on that

success. Since the results, based on 200 valid responses, suggest that a significant proportion of organisations adopt PM and BM concurrently, SEM was used. PM practices were not only found to influence project management success but also to affect project investment success. However, BM is found to be less significant and to have less impact on project investment success. Nevertheless, the probability of project success is enhanced significantly when PM and BM practices are combined together. Therefore, a governance-based framework is developed to uncover the interweaving relationship between the two practices.

Eduardo Martins Serraa Martin Kuncb (2015) discuss Business strategies, which imply organizational change, usually require the development of projects, e.g. IT projects. However, organizations fail in implementing their strategies even though they employ project, program and portfolio management techniques. Benefits Realization Management (BRM) is a set of processes structured to close the gap between strategy planning and execution by ensuring the implementation of the most valuable initiatives. However, there is no empirical evidence of its effectiveness. This paper presents the results of a survey to practitioners in Brazil, United Kingdom and United States evaluating the impact of BRM practices on project success rate. Our results show BRM practices being positive predictors to project success on the creation of strategic value for the business. Therefore, these results suggest that BRM practices can be effective to support the successful execution of business strategies.

Franco Caron, Fabrizio Ruggeri, Beatrice Pierini (2016), states that this identify the most suitable performance project to enhance the productivity and proof for the capability to develop a reliable 'Estimate at Completion' from the earliest stage of project execution is essential in order to develop a proactive project management. In order to accomplish this aim, a model to formulate estimates at completion is presented which integrates through a *Bayesian approach* three knowledge sources experts' opinions, data from past projects and the current performance of the ongoing project. The model has been applied to three Oil and Gas projects in order to forecast their final duration and cost. These projects are characterized by a high level of size, uncertainty and complexity representing a challenging test for the

model. The results obtained show a higher forecasting accuracy of the Bayesian model compared to the traditional Earned Value Management (EVM) methodology.

Harrison A. Mesa, Keith R. Molenaar, Luis F. Alarcón (2016), Integrated project delivery (IPD) has emerged as a new delivery system with the potential to provide better performance through more supply chain integration. However, there is a knowledge gap surrounding how project delivery systems, IPD in particular, affect supply chain relationships and potential project performance. To fill this gap, we applied a simulation method, General Performance Model (GPM), to assess the interactions between numerous project delivery variables and compare potential performance between delivery systems. This study presents a GPM analysis of a complex hospital project and based upon cross-impact assessments by owners, architects, constructors, and specialty contractors from the building industry. The results found the most influential drivers of project delivery performance to be communication, alignment of interest and objectives, team working, trust, and gain/pain sharing. The performance of the supply chain was found to drive the project delivery performance.

Gilberto Francisco de Oliveira, Roque Rabechini Jr (2019), This article aims to analyze the influence of stakeholder management on trust in project environments. Data was collected from 130 project professionals in companies from several national and multinational segments operating in Brazil. PLS-PM was applied for treatment and for data analysis. The results show that the relational stakeholder management influence on the three types of trust is relevant and significant. Therefore, it is important that the project manager not fail to consider actions such as communication with empathy as of the beginning of the project.

Martina Huemann, ^aAnne Keegan^b, Ralf Müller^c (2016), The body of knowledge of projects and their management. Nevertheless, the curiosity for new things is by no means quenched, we expect that like a butterfly will continue to fly from one topic to the next in what promises to be simply the latest phase in his career. Reflecting the overarching and encompassing nature of Rodney's contributions, the theme of this festschrift is simply Managing the Project-Based Organization. We solicit submissions for this Festschrift, which will be published in January 2018.

Appropriate themes for contributions should be aligned with J Rodney Turner's areas of research

Henry A. Hornstein (2015), Project management processes and the training of new project managers (PM) must consider the impact of organizational change on the success and failure of project implementations. The case for requiring project managers to be conversant with organizational change management (OCM) is made by the author by reviewing supportive literature. In addition, PM certifying agencies like PMI and IPMA are strongly encouraged to include education on OCM to the certification process for new PMs.

Hoang, Nhat Minh (2014), Nowadays, projects are daily initiated in every organization from all corners of the world. From non-profit projects to multi-million-euro projects, without right project management, project failure can be an inevitable result. Therefore, the need for project management software is rapidly increasing, not only in IT-related projects, but also in projects of all other fields. The question is how to utilize project management software in different projects of different purposes to serve the project's progress. In this thesis, the authors focus on answering the mentioned question by researching the theories of project management, together with studying the case of two project management software.

Hong Long Chen, Wei Tong Chen, Ying Lien Lin (2016), Earned value project management (EVPM) is an effective tool for managing project performance. However, most studies on extensions and applications of EVPM concentrate on improving final cost and duration estimates rather than improving upon the use of planned value (PV) to predict earned value (EV) and actual cost value (AC). This study proposes a straightforward modelling method for improving the predictive power of PV before executing a project. By using this modelling method, this study develops EV and AC forecasting models for four case projects. Out-of-sample forecasting validation using mean absolute percentage error (MAPE) demonstrates that the proposed method improves forecasting accuracy by an average of 23.66% and 17.39%, respectively, for EV and AC. This improvement on PV's predictive power prior to project execution provides management with more reliable predictive

information about EV and AC performance, allowing for effective proactive action to ensure favourable performance outcomes.

Herb Saunders, P.E., Member, ASCE; and Ed DeSimone (2017), PROJECT MANAGER TRAINING A number of instructive programs of both the homegrown and the academic type have had varying degrees of success in teaching the mechanics of the project management process, but they often get tied up in software or reports and paper exercises. Many of these programs are quite elaborate and are beyond the reach of inappropriate to the small or medium sized firm. Most practitioners recognize that the best way to learn project management is by doing it. Yet it is frightening for a firm to put the responsibility for a major project or even a meaningfully large subproject in the hands of an unproven or inexperienced individual, no matter how technically qualified. This is also unfair to the identified target (or project manager) when things go awry, no matter what the cause. A frequent omission from most of these programs is some form of leadership training, particularly one involving intense on-the-job training.

Kadir Alpaslan Demir (2009),Recent surveys indicate that software projects have still high failure rates. In order to increase the odds of success, we have to identify the challenges and determine the causes. Management issues, rather than technological issues, are mostly the causes of these failures. They identified 17possible areas in which the projects may have been challenged. In this study, we present our findings based on a survey on challenges of management of software projects. They conducted the survey in 2007 among 78 software practitioners regarding their last projects. The participants are from different geographical regions of the world.

Lavagnon A. Ika (2009), This article highlights the characteristics of articles on project success published between 1986 and 2004 in the Project Management Journal (PMJ) and the International Journal of Project Management (IJPM). The analysis covers references, concepts like project management success, project success, success criteria, and success factors; features of the samples, data collection, and analysis techniques used; and professional disciplines. The results show that research on project success is characterized by diversity except in

epistemological and methodological perspectives. The article suggests a shift to project, portfolio, and program success and concludes with a discussion on the traditional state of the research, criticizes its assumptions, and offers alternative metaphors and recommendations for future research.

Mariska M.G. de Rooij, Martyna Janowicz-Panjaitan, Remco S. Mannak (2019)

This paper investigates what configurations of organization-level contingencies explain different performance management system (PMS) designs in project-based organizations (PBOs). By studying organization-level contingency factors – perceived environmental uncertainty, organizational size, innovation strategy, and opportunity strategy – this paper extends prior literature on PMSs in PBOs, which predominantly focused on project and portfolio level contingencies. In addition, while prior literature studied the contingency factors separately, this paper argues that it is the configuration of contingencies that matter for PMS design choices. Data on 15 PBOs in the management consulting industry reveal that PBOs combine various controls into performance management systems that are either predominantly mechanistic or organic in nature. Qualitative Comparative Analysis (QCA) points to four configurations of organization-level characteristics, two of which are associated with the PBO's choice for mechanistic performance management system, and two that are related to organic performance management system.

Martina Huemann , ^aAnne Keegan^b,Ralf Müller^c (2016), gives the body of knowledge of projects and their management. Nevertheless, the curiosity for new things is by no means quenched, we expect that like a butterfly will continue to fly from one topic to the next in what promises to be simply the latest phase in his career. Reflecting the overarching and encompassing nature of Rodney's contributions, the theme of this festschrift is simply Managing the Project-Based Organization. We solicit submissions for this Festschrift, which will be published in January 2018. Appropriate themes for contributions should be aligned with J Rodney Turner's areas of research.

Michael Bommer; Renee DeLaPorte,,James Higgins (2002), Here the Three new product development programs attempting to meet challenging targets for time-to-market, quality, and cost were in urgent need of space and facilities. A decision was

made to reengineer a light commercial building 50 miles from the main research and development and manufacturing facility. This satellite facility that housed a supplier of electroformed parts to another original equipment manufacturer would need to be entirely retrofitted to accommodate the research and development and manufacturing requirements of the four groups. The existing corporate facilities engineering group was unable to deliver the array of requests generated by the product development programs. This included 31 different projects, ranging from clean rooms and labs to air handling systems and offices. A project management team was spun off with the directive to meet customer requirements on time and within budget—even if it meant breaking rules. The project had many of the earmarks of a “skunkworks,” the concept originally developed by Lockheed Martin, as a way to quickly develop solutions by bypassing some of the time-consuming bureaucracy and allowing the team to make ad hoc decisions.

Miguel LinharesPinheiro^a, PauloSerôdio^b, José CarlosPinho,^aCândidaLucas^c (2016), in this study they examine the role of Social capital dimensions towards resource sharing within R&D cooperation projects funded by the 7th Framework Programmed (FP7). Data were collected in a survey of 553 FP7 project participants and analyzed using two different social network analysis (SNA) methodologies Logistic regression quadratic assignment procedure and exponential random graph models. Results showed that all Social Capital dimensions helped to explain partners' resource sharing, although to a different extent. Prior ties were often significant, whilst shared vision and commitment were very frequently positive contributors to resource sharing. Trust was rarely significant, and occasionally detrimental, to partners' resource sharing. Therefore, the FP7 provided a collaborative but opportunistic environment for public and private actors. The novelty of this study derives from the combination of social capital theory with SNA to study intra-project partner relationships, contributing to a better understanding on the diversity of partner relationships within R&D projects.

Mirosław J. Skibniewski, M.ASCE; and Gustavo A. Vecino (2012), This paper describes a project management framework for dredging projects (PMFD) developed to facilitate the performance of dredging projects. The framework uses established project management techniques, a Web-based project management

system (WPMS) environment, the Project Management Institute's project management body of knowledge project life-cycle concept, and a project delivery system commonly used to procure dredging projects to analyze and optimize project management processes in dredging operations. These processes are intended to be aligned with the project contracting organization's business rules to create a practical framework to manage the project. The presented framework addresses WPMS limitations reported in previous research. The paper describes the principles of applying the PMFD to the management of dredging projects. Finally, the paper presents a case study describing a specific project scenario to illustrate the application of the principles and provides a cost-benefit analysis for the implementation of the WPMS.

V.K. Narayanan, Martina Huemann (2021), In this paper they develop a model of practices undertaken by project managers to address the challenges of organizational fields in an emerging economy context. We anchor the model in a qualitative study of project managers' activities in a major construction industry firm in India. We make three contributions. First, our study illustrates how the micro activities of project managers, in coordination with the actions of senior management, address the emerging economy challenges, and project managers' responses hold lessons for the emerging literature on "projects as practice." Second, we augment the dominant cognitive orientation in the discussion of organizational fields in project management literature with a practice perspective. Finally, we enrich the institutional theory stream in project management. In addition to the mechanisms identified in that stream of literature, our data suggest that the activities of project managers in major construction projects may act as a mechanism of transition in emerging economies. While the project managers in the Indian construction industry firm undertook numerous field building activities that were crucial for their projects' success, these activities were simultaneously addressing major gaps in the economic infrastructure of India.

Na Mi Nguyen, Catherine P. Killen, Alexander Kock, Hans Georg Gemünden (2018), Project management approaches are evolving to be more flexible and adaptive to meet the challenges associated with an increasingly complex and dynamic environment. However, potential changes in the underpinning logic

supporting project decision making have scarcely been considered. We investigate the role of effectuation, a decision logic most commonly associated with entrepreneurship, as an alternative decision-making approach to the rational 'causation' logic that has traditionally underpinned project management processes. We develop and test a model to explore the portfolio- and project-level influences on the application of effectuation in project management. We find that portfolio governance mechanisms related to business case use and portfolio monitoring inhibit the use of effectuation, while project innovativeness is associated with increased use of effectuation. The paper contributes to research and practice by empirically investigating the antecedents to the use of effectuation decision-making logic in project and portfolio management through a multi-level model.

Michael Bommer;Renee DeLaPorte,,James Higgins (2002),Three new product development programs attempting to meet challenging targets for time-to-market, quality, and cost were in urgent need of space and facilities. A decision was made to reengineer a light commercial building 50 miles from the main research and development and manufacturing facility. This satellite facility that housed a supplier of electroformed parts to another original equipment manufacturer would need to be entirely retrofitted to accommodate the research and development and manufacturing requirements of the four groups. The existing corporate facilities engineering group was unable to deliver the array of requests generated by the product development programs. This included 31 different projects, ranging from clean rooms and labs to air handling systems and offices. A project management team was spun off with the directive to meet customer requirements on time and within budget—even if it meant breaking rules. The project had many of the earmarks of a “skunkworks,” the concept originally developed by Lockheed Martin, as a way to quickly develop solutions by bypassing some of the time-consuming bureaucracy and allowing the team to make ad hoc decisions.

Oladipo Awojide, Ian R. Hodgkinson, M.N. Ravishankar (2018), Research has established that ambidextrous organizations can successfully outperform their non-ambidextrous counterparts through exploitative and exploratory activities. However, there remains a scarcity of research on how managers orchestrate ambidexterity at the operational level, particularly in project delivery. Drawing on 55 qualitative

interviews with middle managers on two engineering projects, we examine how managerial ambidexterity is enacted at the project level. We find that middle managers enable their own exploitative, exploratory and ambidextrous behaviours by invoking a repertoire of values selected from their organization's cultural toolkit, which serve as cultural resources for action. We discuss how the cultural toolkit perspective can inform the relationship between managerial actions in day-to-day operations and organizational ambidexterity. Implications for theory and practice are presented.

Peter J. Zipf (2020) states the essential challenges that these initiatives focused on was how a project manager gets the architect, the design engineer, the construction engineer, and the contractor to work together as a project team to successfully plan and implement the construction project. This was critical since the engineering business of design and construction is extremely complex. The “project control process” is one method used by project managers to address this issue. At the Port Authority, the engineering department has established a typical three-element cycle to help project managers control the scope, schedule, and budget of a project (see figure 1). The “heart” of project management, however, goes beyond this process and relates directly to communication. With traditional tools of communication, the project manager often loses the ability to “change direction” in a timely manner. Today’s technologies, however, open up new opportunities to project managers. These technologies include local area networks (LANs), wide area networks (WANs), electronic communication, integrated project management systems, geographic information systems, electronic document management systems, and enterprise wide database systems.

Raynold O. Folland, M. ASCE (2012), The definition of communication is stated as the basis for an analysis of four fundamentals of project management communications. The view-point presented is that of the owner's representative in management of a construction project. The special nature of the resident engineer's problems in establishing and maintaining clear lines of communication with the other members of the project team and the public is also emphasized.

Stuart D. Green, Natalya Sergeeva (2019) ,It is contended that value is a social construct, and that the processes of social construction are rooted in language. On

this basis we argue that value creation is a process which lends itself to interpretation from a narrative perspective. Previous attempts at value creation have been promoted under the label of 'value management'. There are two approaches which are identifiable in the literature. The first is based on the traditional narrative of value engineering (aka Hard VM) and is primarily directed towards cost reduction. The second more recent variant is labelled 'soft' value management (Soft VM) and is primarily directed towards the achievement of a shared understanding of the value criteria relating to an individual project. The two approaches are critiqued in terms of their underlying assumptions and it is suggested that they are best understood as different forms of narrative. The emerging literature on value creation is similarly critiqued in accordance with the adopted narrative perspective. The distinction is made between formalised narratives of value on the level of the organisations involved in the project coalition and the anecdotal stories which individuals use to make sense of their own lived experiences. Emphasis is given to the ways in which different narratives interact, and to the way in which they remain contestable over time. Particular attention is given to the confluence between storytelling and identity work.

Sungmin Yun, Jiyong Choi, Daniel P. Oliveira, Stephen P. Mulva, Youngcheol Kang (2016), This study presents a phase-based framework and 10 input measures for measuring project management efforts in a capital project. The measures are planning, organizing, leading, controlling, design efficiency, human resources, quality, sustainability, supply chain, and safety. This study quantifies and assesses the inputs and further sorts the results by industry sectors and project phases. The analyses show that traditional functions tend to have more consistent implementation than construction-specific functions. The results indicate that infrastructure sector tends to exert fewer and less consistent efforts than building and industrial sectors. This study contributes a new benchmarking framework and is the first to quantify project management inputs of a capital project systematically. Additionally, phase-focused and phase-wide benchmarking applications of the input measures are also discussed and provided.

Svetlana cicmil. (2006), identifies such an approach implies a combination of practical philosophical considerations and concrete empirical analysis of lived

experiences and social processes in concrete project settings. Two important issues are addressed the complex process of this kind of qualitative research, and the nature and practical usefulness of its outcomes. First, the interconnectedness of a number of elements in the process of management research (the focus of inquiry, theoretical tradition used to define the research question, methodological approach to research design, and data collection and interpretation method) is presented as a holistic framework, which is then used to discuss the implications of deploying interpretative and critical methodologies in researching project management practice, skills, and competencies.

Yajuan Wang, Yi Liu, Cem Canel (2018), Interfirm process coordination is pivotal for offshore outsourced service project success. Via knowledge-based and organizational learning view, this study explores the effectiveness of process coordination in the dyadic client-provider relationship. We investigate the influence of interactive and implicit coordination on project performance under contingencies determine interfirm interdependencies from the top down and from the bottom up. The objectives are to comprehend the two approaches to coordinating and integrating partners' endeavors during project implementation and to unveil their interactions with project context. Our theoretical and empirical analyses show how the effectiveness of process coordination depends on project attributes individually and jointly.

William M. Hayden, Jr., P.E., Fellow, ASCE (2001), The essential processes of any PMOS include the following Validate understanding of client's project need. Confirm client's outcome expectations. Identify risks and track trigger events.,Plan the work. Engage the head, hands, and hearts of the team members. ,Monitor and control performance against the plan. Manage the interface of each part. Sufficient PMOS documentation exists in the public domain to support an organization's need to tailor its PM's "steps to success" into a knowledge-transfer document with a common language. Clients have the right to expect—and the obligation to provide—cooperative and collaborative participation and information that will ensure the success of their projects.

Anna I. Belaya; Ilya V. Tchancev; Maria A. Kossukhina (2017), The usage of modern methods in innovation project management is a driving force of innovation system development. To maintain cognitive economy systematic development in Russian Federation it is necessary to select the management type for innovative project process management, project management or traditional management. The usage of enterprise information systems solves many problems that occurs in every type of management. The aim of the article is to consider and analyze the classes of enterprise information systems, their functionality in the area of innovative project management using the comparative analysis method and method of expert assessment and to suggest the software products of particular class that could be used for innovative projects management tasks.

Jun Jie Ng; Kah-Hin Chai (2016), Our study employs quantitative bibliometric techniques including citation and co-citation analysis through social network realisation and Gephi clustering of articles from the Project Management Journal published by Project Management Institute (PMI). We identified the core themes to be Project Success/Failure, Portfolio/Programme Management, Knowledge Management, Qualitative Research, Complex Projects, Project Leadership and Best Practice. Our analysis shows that the majority of the literature is still academic in nature, and there is room for researchers to conduct future studies that is of more practiced-based relevant. However, the topics we discern suggest the start of divergence away from the PMI BoK (PMBOK) and researchers are developing tools which manage the specific issues in this information's age.

Laya Parvizedghy; Mohammad Hossein Sobhiyah (2011), Despite to the initial attractions, the international projects are potentially high-risk and their negative impacts can affect international contractors if the risks are not identified in the contracting phase. The implementation of an efficient risk management process can reduce the negative impacts of identified risks which may in turn increase the profit of these companies. Risks of international projects are identified and prioritized in this paper. At last, some solutions have been proposed to mitigate top ten risks effects on these projects.

Leticia Fuentes-Ardeo; Jose Ramon Otegi-Olaso; Maria Eugenia Aguilar-Fernandez (2017) There are different studies analysing which are the aspects influencing the project success; this paper will focus on the project knowledge management and the sustainability in project management. As it is broadly accepted that these two fields impact directly on project success. There has been studied separately but, in this case, there is going to analyze the combination of each of them. The model proposed in this paper analyses the idea of the integration of these three fields in order to determine how the Project knowledge management can be a key factor in when integrating the Sustainability in the project management This fact will directly impact on the project success.

Mas'ud Adhi Saputra, Arry Akhmad Arman (2015), Software has important role for government agencies. It changes governance systems and processes by improving service delivery from government to business (G2B), community (G2C), and among agencies (G2G). It was triggering many government agencies to undertake software projects. On the other side, software projects are so dynamic and uncertain. The problems caused by delayed schedule, costs overrun and low quality of deliverables. Scope, time, cost, quality, risk and other domains should be managed to solve the problems. Several efforts have been done to improve software project management in government agencies. However, no one has specifically analyzed the correlation between project management practices, software engineering practices and government project procurement activities. This study chose and combined PMBOK, SWEBOK and the Presidential Decree number 4/2015 to analyze software project management for government agencies. Deep analysis has been conducted to find a preliminary framework of software project management for government agencies.

Richard Peterson. (2010), Here the Budgeting; Communication and collaboration; Current and emerging standards; Decision support systems; Facilities and equipment support; Feasibility studies; Goals and objective setting; HRM challenges; Marketing and branding strategies; Measurement and metrics; Negotiation skills; Opportunity management; Organization change projects; Outsourcing and alliances; Project coordination and scheduling; Project

governance; Project information systems; Project knowledge management; Project management teams; Project review and evaluation; Quality assurance and testing; Resource Allocation; Risk assessment and management; Scheduling; Software and systems; Staffing; Systems Analysis; Time and cost estimating; Virtual project; Web-based PM.

Shuangqin Liu; Cheng Liu(2011), In this paper it is said that they have emerged To compare with other projects, information technology (IT) projects are unique, which are characterized by emergency, uniqueness, one shot, short term and uncertainty. To implement an IT project successfully, problems in the IT project management must be found, analyzed and solved and there must be successful project management and management innovation as well. Then, what are the major problems in IT project management? Who can conduct IT project management successfully? How to conduct IT project management successfully? How to innovate IT project management? This paper discusses all these questions. And on the basis of the above, it also draws the following conclusion The project managers play a key role in both implementing and controlling stages of IT projects. The project managers should regard IT project management as a system, deal with various relationships with the parties concerned in the system well, and conduct management innovation. By adequate communication channels, the project managers should communicate with all the stakeholders, i.e. the factors in the system, including the client, the management, and the team members to know their requirements, needs and the problems respectively.

Dr. Steven D. Eppinger (2013), Organizational design, planning, decision and sense making, decomposition systems; Project and Operations management in process, manufacturing and service organizations; Project, Program and Portfolio strategy and policy; Product and service design and development; Manufacturing and service systems design; Technology management for operations; Multi-site operations management; Capacity planning and analysis; Operations planning, scheduling and control; Project management; Human resource management for operations; Work design, measurement and improvement; Performance measurement and productivity; Quality management; Purchasing/sourcing systems; Materials and inventory management; Logistics, transportation, distribution, and

materials handling; Supply Chain management; International and comparative operations; Operations and information management; Environmental issues in operations.

Xin-hua Wu; Hong-jun Jia(2011), Enterprise project management is enterprise development innovation source power. By analyzing the influential factors of enterprise project management, then established enterprise project management capability evaluation index system, which including the enterprise strategy, project management team, the project management organization, project process control, multi-Project management and project management technology.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

The methods adopted by the researcher for completing the projects are called Research Methodology. In other words, Research Methodology is simply the plan of action for a research, which explains in detail how data is to be collected, analyzed and interpreted. Data becomes information only when a proper methodology is adopted. Thus, we can say Methodology is a tool, which process the date to a reliable information. The present attempt is to highlight the research methodology adopted in this project. Research is the careful investigation or inquiry especially through search for new facts in a branch of knowledge. Research design is the basic framework, which provides guidelines for the research process. It is a map or blue print according to which the research is to be concluded. Research design ensures that

- 1) The study will be relevant to the problem, and
- 2) The study will employ economical procedures.

In this project, Descriptive Research Design will be adopted. Descriptive Research studies are those studies which are concerned with describing the characteristics of a particular individual or group. The descriptive analysis is to produce a situation analysis.

3.2 SAMPLING TECHNIQUES

Sampling may be defined as the selection of some part of an aggregate or totality. On the basis of which a judgment or inference about the aggregate or totality is made. Research conducted by considering only few units of population is called as Sampling. Sampling is an important and persuasive activity.

In this project, Random Sampling will be used.

3.2.1 RANDOM SAMPLING

This may be the most important type of sample. A random sample allows a known probability that each elementary unit will be chosen. For this reason, it is sometimes referred to as a probability sample.

3.2.2 POPULATION

The target population is the collection of elements or objects that process the information sought by the researcher and about which inferences are to be made.

3.3 DATA COLLECTION METHOD

There are 2 types of data collection namely,

- Primary data
- Secondary data

3.3.1 PRIMARY DATA

Primary data are fresh data, which do not exist in records and publications. The researcher has to gather primary data for his/her specific study. Primary data are generated when the researcher investigates a particular problem employing mail, questionnaires, telephone surveys, personal interviews, observations and experiments.

In this project, the primary data is required for the study will be collected using Survey Method.

3.3.2 SECONDARY DATA

On the other hand includes those data which are collected for some earlier data. Secondary data is the second hand information. It is classified into two categories

- Internal secondary data
- External secondary data

In this research, the researcher used the internal secondary data and it is collected from various sources like published books, companies' broacher and websites.

In this data was collected by contacting the respondents directly. The secondary data required for the study has been compiled from websites, journals, magazines and subject books.

Research Instrument

A questionnaire consisting of rating scales viz, strongly agree, and Agree, Neutral, Disagree, Strongly Disagree.

3.3.3 DATA COLLECTION TOOL

The tool used for the survey method will be **STRUCTURED QUESTIONNAIRE**. A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents.

Dichotomous questions, Multiple – Choice questions, close – ended questions and direct questions formed the questionnaire. Questionnaires have advantages over some other types of surveys in that they are cheap, do not require as much effort from the questioner as verbal or telephone surveys, and often have standardized answers that make it simple to compile data.

3.4 SAMPLING SIZE

The sample size for the study is 120 employees of IMind Technology.

3.5 PERIOD OF STUDY

The period of the study at IMind Technology, Chennai was about December 2020 to March 2021.

3.6 TOOLS TO BE USED FOR ANALYSIS

In order to extract meaningful information from the data collected. The data analysis is carried out. The analysis is basically aimed at giving preference of association or difference between the various tables present in the research.

Statistics

The term 'statistics' refers to a measured value based upon sample data. After collection of data, the questionnaires will be scrutinized and facts coded and tabulated followed by analysis and interpretation using statistical techniques mentioned below

- Percentage Analysis
- Chi-Square
- Correlation.

3.2.1 PERCENTAGE ANALYSIS

Percentage refers to a special kind of ratio. Percentage helps in making comparison between two or more series of data. Percentage is used to describe the relationships. It is also used to compare the relative trees, the distribution two or more series of data.

Percentage of respondents = (Number of respondents /Total respondents)*100.

3.2 CHI SQUARE ANALYSIS

Chi-Square is a non-parametric test of statistical significance for bivariate tabular analysis. It is one of the simplest and most widely used non-parametric tests in statistical work. The Chi-Square method is the application of testing the significant difference between observed and expected values.

3.5.4 CORRELATION

Correlation cannot determine cause and effect. Strictly speaking, **correlation** can only indicate the strength of the statistical relationship between two **survey** questions. It cannot indicate which of those items is influencing the other item.

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 Percentage Analysis

Table 4.1.1 Table showing the Gender wise classification of the Respondents

GENDER	NO. OF RESPONDENTS	PERCENTAGE
Male	64	53.33
Female	56	46.66
Total	120	100

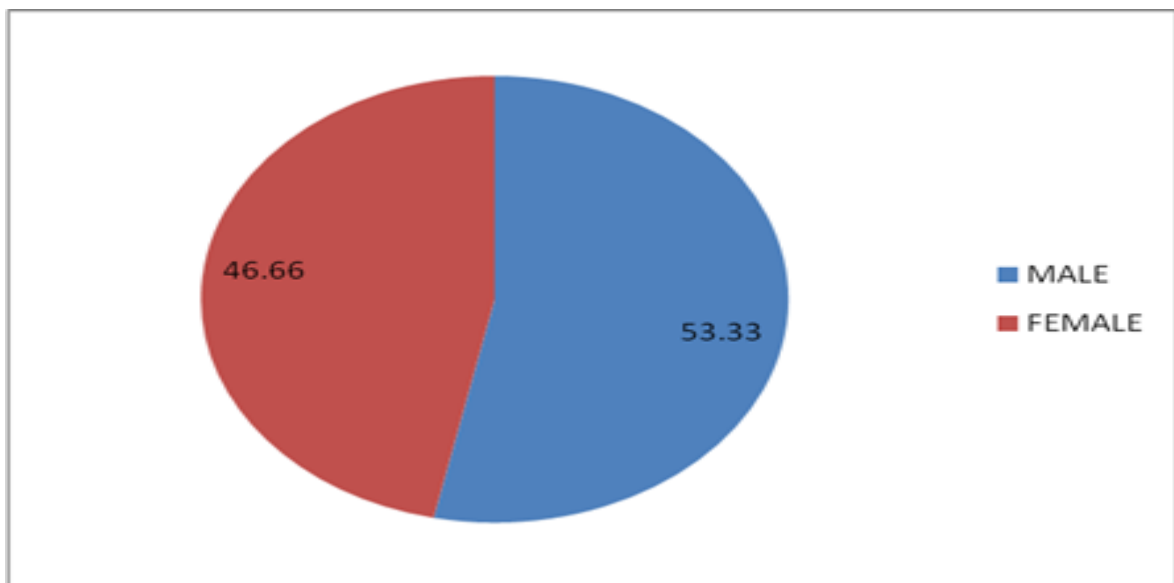


Chart 4.1.1 Chart representing the Gender wise classification of the respondents.

Interpretation

From the above table it is inferred that 53.3% of respondents are male and 46.6% respondents are female.

Inference

It is interfered that there is equal employment given in this company.

Table 4.1.2 Table showing the Age of the Respondents

AGE	NO. OF RESPONDENTS	PERCENTAGE
Less than 25	58	48.33
26-35	46	38.33
36-45	15	12.5
Above 45	1	0.83
Total	120	100

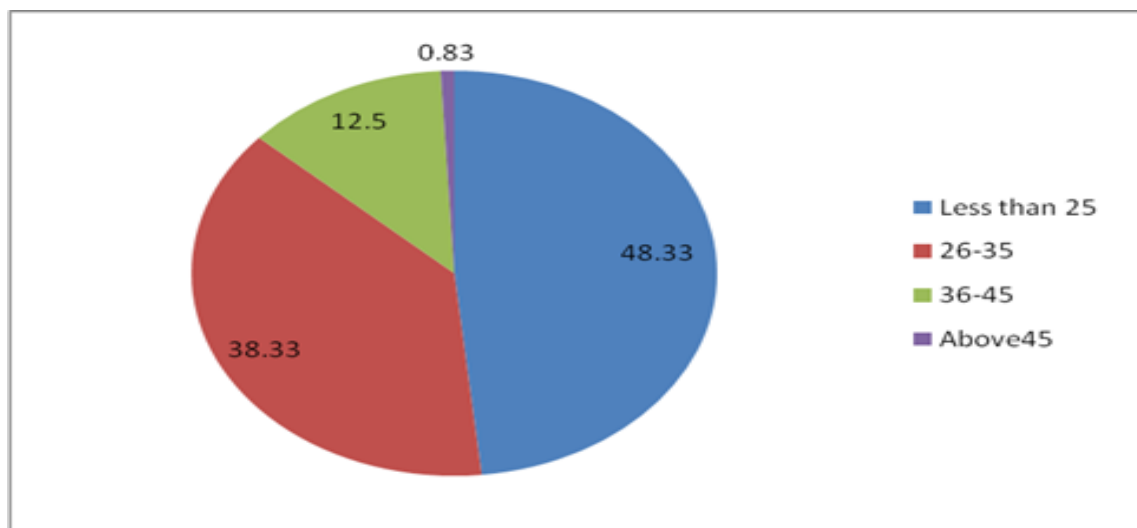


Chart 4.1.2 Chart representing Age of the Respondents

Interpretation

From the above table it is inferred that 48.3% of respondents are between the age of less than 25, 38.3% of respondents are between the age group of 26-35, 12.5% of respondents are in the age of 36-45 and 0.83% of respondents are above 45.

Inference

It is inferred that from the respondents majority are less than 25 and only some are Above 45.

Table 4.1.3 Table showing the Marital Status of the Respondents

MARITAL STATUS	NO. OF RESPONDENTS	PERCENTAGE
Single	32	26.66
Married	88	73.33
Total	120	100

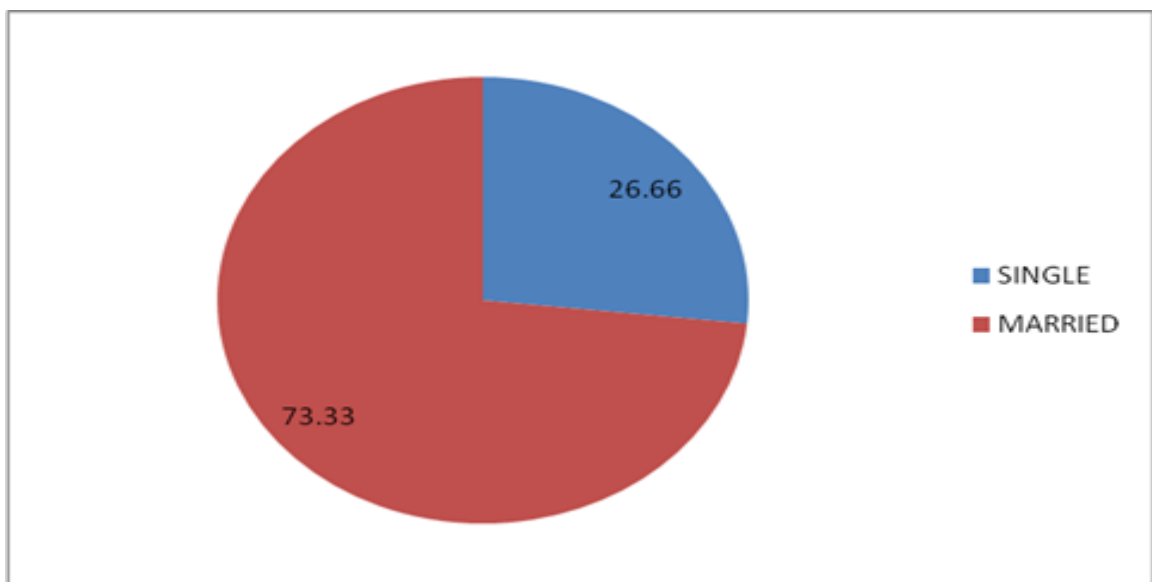


Chart 4.1.3 Chart representing marital status of the respondents

Inference

From the above table it is inferred that 73.3% of respondents are married and 26.6% of respondents are single.

Inference

From the respondents there are married people in more compared to unmarried.

Table 4.1.4 Table showing the Monthly Income of Respondents

MONTHLY INCOME	NO. OF RESPONDENTS	PERCENTAGE
Below 10000	6	5
10000-20000	8	6.66
20000-30000	65	54.16
Above 30000	41	34.16
Total	120	100

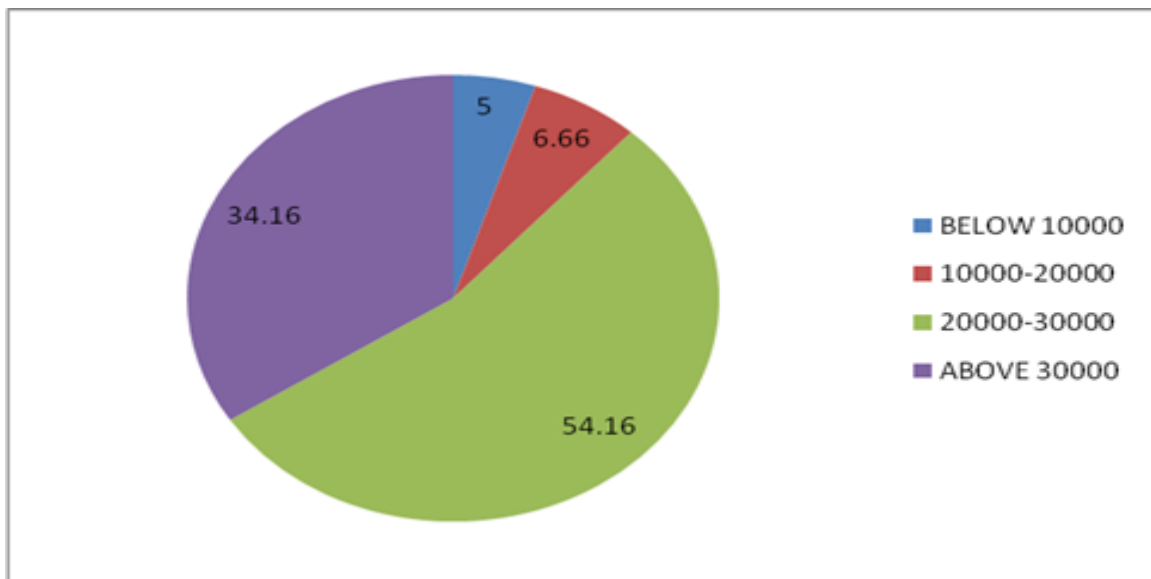


Chart 4.1.4 Chart representing monthly income of respondents

Interference

From the above table it is inferred that 5% of respondents are getting the monthly income above RS.10000, 6.6% of respondents are getting their income between 10000 – 20000, 54.1% of respondents are between 20000 – 30000 and 34.1% are getting above 30000.

Inference

From the table it is given that majorly 54.1% respondents are receiving about 20000-30000, and less of 5% are getting 10000 as monthly income and 6.6% at average of 10000-20000 and high earners of 34.1% are getting 30000.

Table 4.1.5 Table showing the Education Qualification of the Respondents

GRADUATION	NO. OF RESPONDENTS	PERCENTAGE
Undergraduate degree	78	65
Master's certificate [postgraduate]	30	25
Technical course qualification	11	9.16
Diploma	1	0.833
Total	120	100

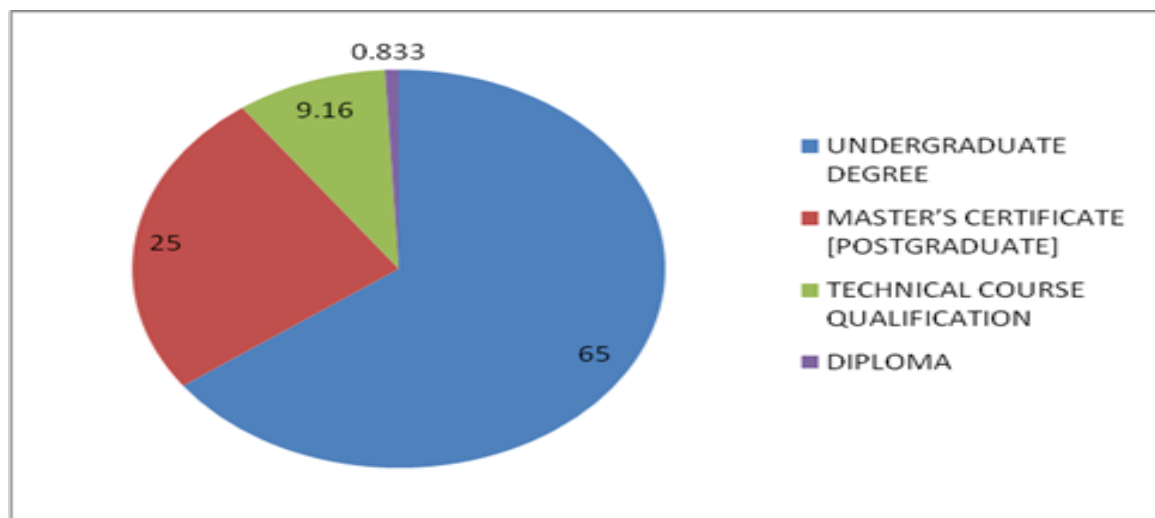


Chart 4.1.5 Chart representing education qualification of the respondents

Interference

From the above table it is inferred that 65% of respondents are under graduates, 25% of respondents are post graduates, 9% of respondents are technical course and 0.83% of respondents have completed Diploma.

Inference

From the chart there are more Undergraduates working as compared with Post graduates of 25% and 9% of Technical courses and less diploma.

Table 4.1.6 Table showing the Experience of the Respondents

YEAR OF EXPERIENCE	NO. OF RESPONDENTS	PERCENTAGE
Less than 6 year	85	70.83
6-10 years	20	16.66
10-15 years	10	8.33
15-20 years	3	2.5
Above 20 years	2	1.66
Total	120	100

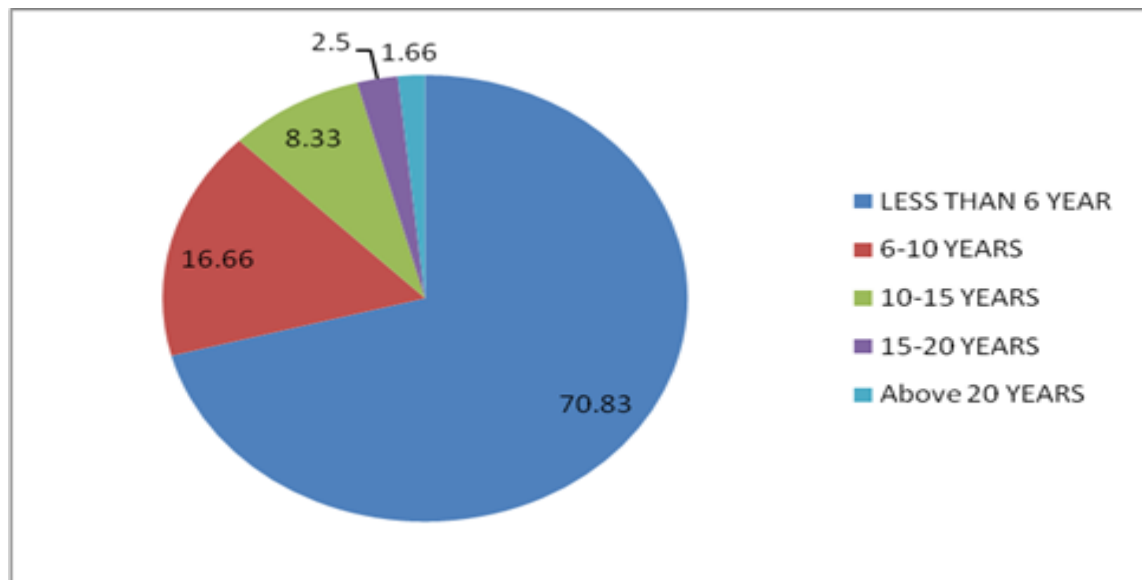


Chart 4.1.6 Chart representing experience of the respondents

Interference

From the above it is inferred that 70.83% are less than 6 years, 16.66% respondents are 6-10 years experienced, 8.33% respondents are 10-15 years experienced, 2.5% respondents are 15-20 years and 1.66% respondents are experienced above 20 years.

Inference

It is referred that Many respondents are less than 1 year and about 16.66% are 6-10 years experienced and less that Above 2 years are only 1.66%

Table 4.1.7 Table showing the Designation of Job of the Respondents

NATURE OF JOB	NO. OF RESPONDENTS	PERCENTAGE
Software developer	72	60
Associate/junior consultant	25	20.83
Senior consultant	9	7.5
Management staff /manager	14	11.66
Total	120	100

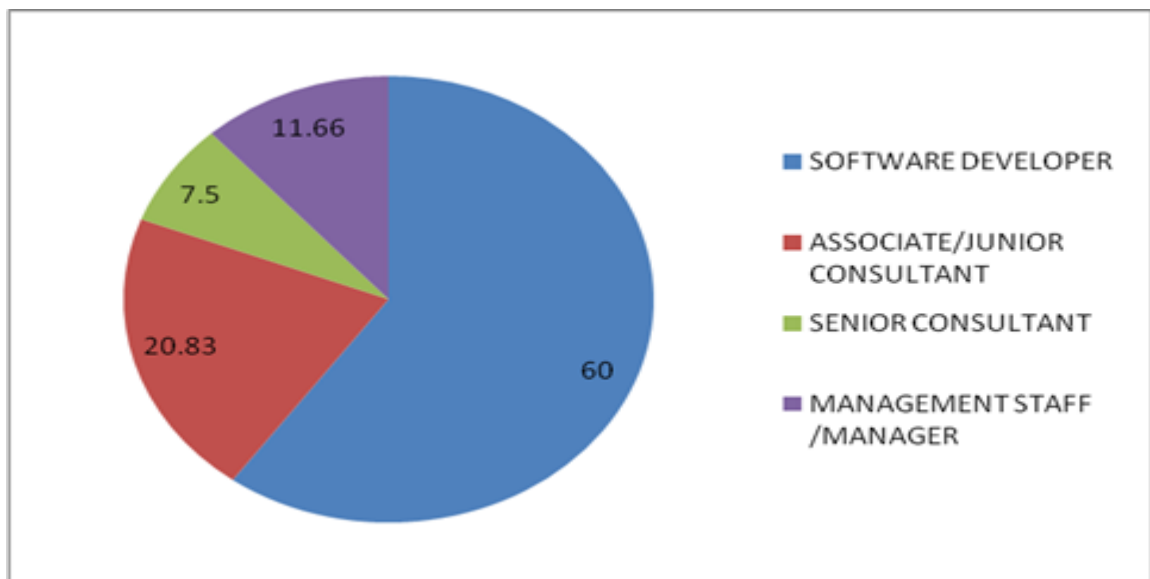


Chart 4.1.7 Chart representing Designation of the respondents

Interference

From the above table it is inferred that 60% are software developers, 20.83% respondents are Associate or junior consultant, 7.5% respondents are Senior consultant and 11.66% of respondents are Management staffs.

Inference

It is inferred that many people are software developers and average of respondents re in consultancy and 11.66% of respondents are management staffs.

Table 4.1.8 Table showing the Primary Business Activity

PRIMARY BUSINESS ACTIVITY	NO. OF RESPONDENTS	PERCENTAGE
Application / cloud computing services	82	68.33
Cloud computing	38	31.66
Total	120	100

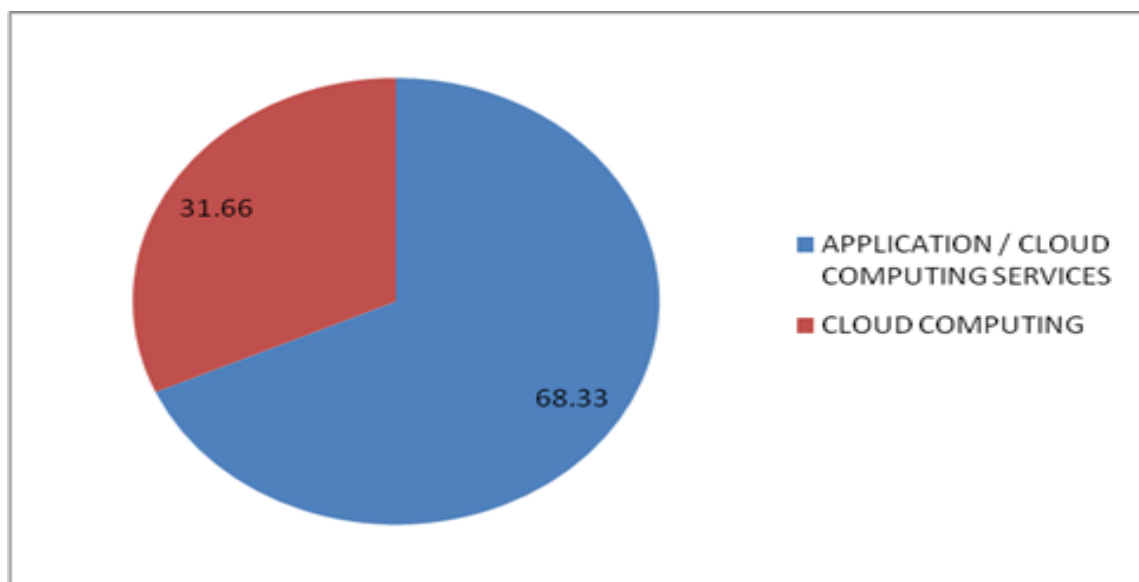


Chart 4.1.8 Chart representing the Primary Business Activity

Interference

The table shows that Primary business activities followed at IMind technology that 68.33% respondents are working under cloud computing and 31.66% respondents are working under Application or cloud computing services.

Inference

It is inferred that majorly Application and cloud computing services I have mainly focused on and comparatively cloud computing services are less.

Table 4.1.9 Table showing the Members in Project Team

MEMBERS IN PROJECT TEAM	NO. OF RESPONDENTS	PERCENTAGE
Less than 7	24	20
7-15	33	27.5
16-20	49	40.83
More than 20	14	11.66
Total	120	100

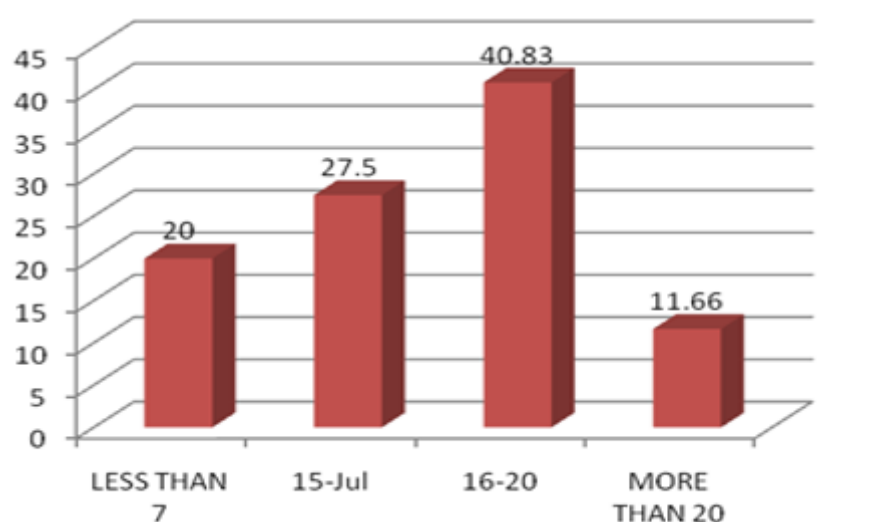


Chart 4.1.9 Chart representing Members in Project Team

Interference

From the above table 20% respondents are in team Less than 7 members, 27.5% respondents are in team of 7-15 members, 40.83% respondents are in team of 16-20 members and 11.66% respondents are in team of more than 20 members.

Inference

It is inferred that project team members of 16-20 are in major and only 11.66% have been in 20 members team and 27.5% respondents are Less than 7 members, 27.5% respondents are in team of 7-15 members,

Table 4.1.10 Table showing the Duration of the primary project(s)

DURATION OF PROJECT(S) WORK ON	NO. OF RESPONDENTS	PERCENTAGE
Up to 3 months	11	9.166
3 to 6 months	23	19.16
6 months to 1 year	77	64.16
1 to 2 years	9	7.5
Total	120	100

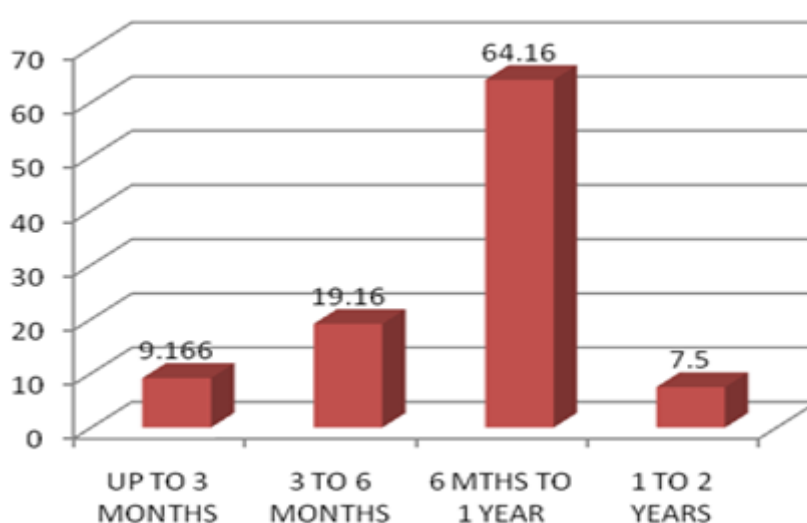


Chart 4.1.10 Chart representing Duration of the primary project work on

Interference

From the above table it is inferred that 9.166% respondents have duration of projects upto 3 months, 19.16% respondents have 3 to 6 months duration, 64.16% have duration of 6 months to 1 year and 7.5% have duration of 1 to 2 years to complete the project.

Inference

It is inferred that mostly the respondents said that they are having 6 months to 1 year project and less that 7.5% have duration of 1 to 2 years to complete the project.

Table 4.1.11 Table showing the Level of product or technical innovation in projects

TECHNICAL INNOVATION	NO. OF RESPONDENTS	PERCENTAGE
High level of innovation	36	30
Low level of innovation	10	8.33
Standard product and technology	74	61.66
Total	120	100

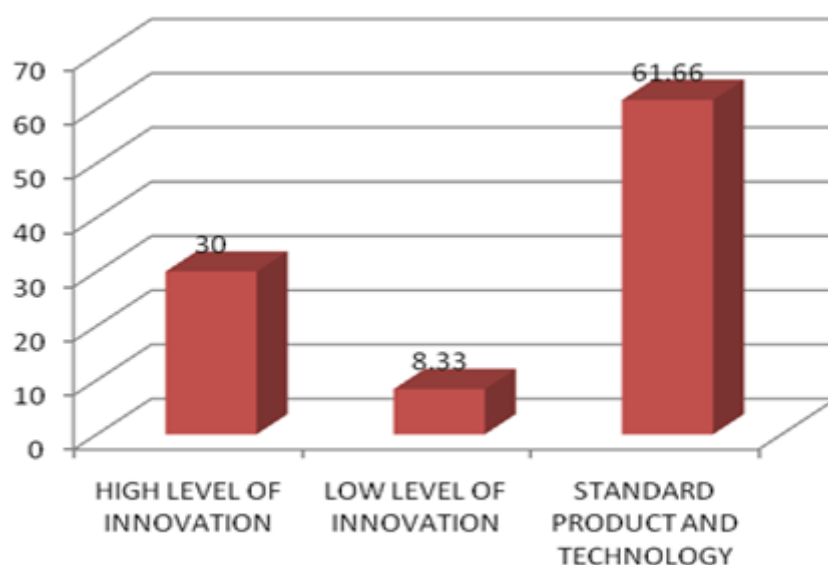


Chart 4.1.11 Chart representing Level of product or technical innovation in projects

Inference

From the above table it is inferred that 30% of respondents infer they follow High Level of Innovation, 8.33% of respondents inferred they follow Low Level Of Innovation and 61.66% respondents infer they follow Standard Product And Technology.

Inference

It is inferred that people follow standard product and technology and they less likely to follow low level of Innovation and average of High level of innovation.

Table 4.1.12 Table showing the Project management method preference in IMind Technologies

PROJECT MANAGEMENT METHOD	NO. OF RESPONDENTS	PERCENTAGE
Traditional approach	96	80
Prince2	11	9.166
Projects integrating sustainable methods	21	17.5
Critical chain project management	42	35
Event chain methodology	23	19.166
Agile project management	11	9.16
Lean project management	4	3.33
Extreme project management	96	80
Total	208	100



Chart 4.1.12 Chart representing Project management method preference in IMind Technologies

Interference

From the above table it is inferred that mostly 80% follows Traditional method and Extreme Project Management Methodologies, 9.166% respondents follow Prince2

method, 3.33% follow Lean Project Management, 17.5% respondents follow Project Integrating Sustainable Method, 35% respondents follow Critical Chain Project Management, 19.666% follow event chain management, 19,16% respondents follow Agile Project Management.

Inference

From the respondents it is inferred that traditional methods and extreme project management are followed at maximum and Prince2 are at average and follow lean project management at low rate and they follow multiple methodologies.

Table 4.1.13 Table showing the Opinion about the project management activities in IMind Technologies

PROJECT MANAGEMENT ACTIVITIES	NO. OF RESPONDENTS	PERCENTAGE
Highly satisfied	48	40
Satisfied	57	47.5
Neutral	10	8.33
Dissatisfied	3	2.5
Highly dissatisfied	2	1.66
Total	120	100

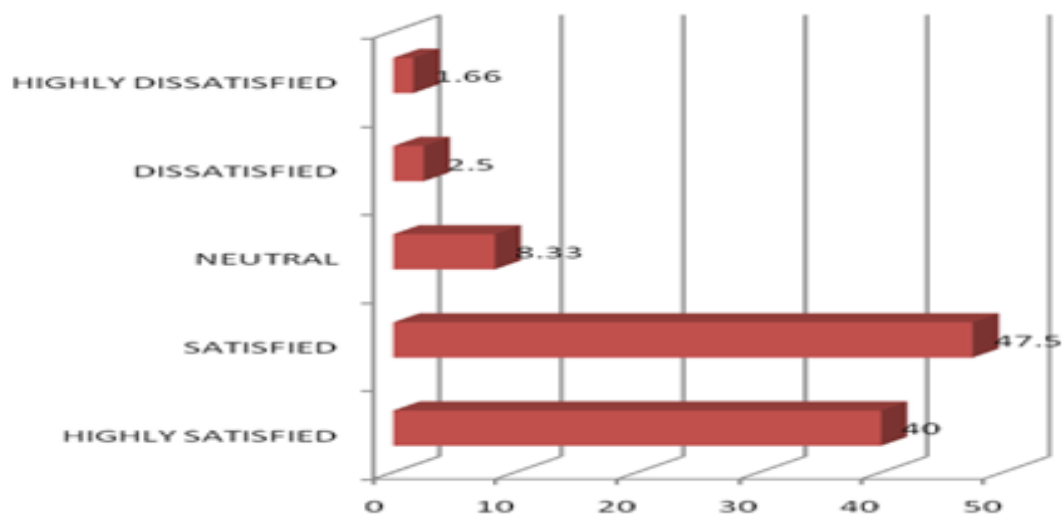


Chart 4.1.13 Chart representing Opinion about the project management activities in IMind Technologies

Interference

From the above table it is inferred that the people working in IMind technology have their opinion that 40% respondents are Highly Satisfied, 47.5% respondents are Satisfied, 3.33% respondents are Neutral, 2.5% respondents are Dissatisfied and 1.66% respondents are highly dissatisfied.

Inference

From the table it is said they have are highly satisfied and Satisfied with their project management activities.

Table 4.1.14 Table showing the Training in project management related concepts in IMind Technologies

PROJECT MANAGEMENT CONCEPTS	NO. OF RESPONDENTS	PERCENTAGE
Rare	23	19.16
Frequently	90	75
Never	7	5.83
Total	120	100

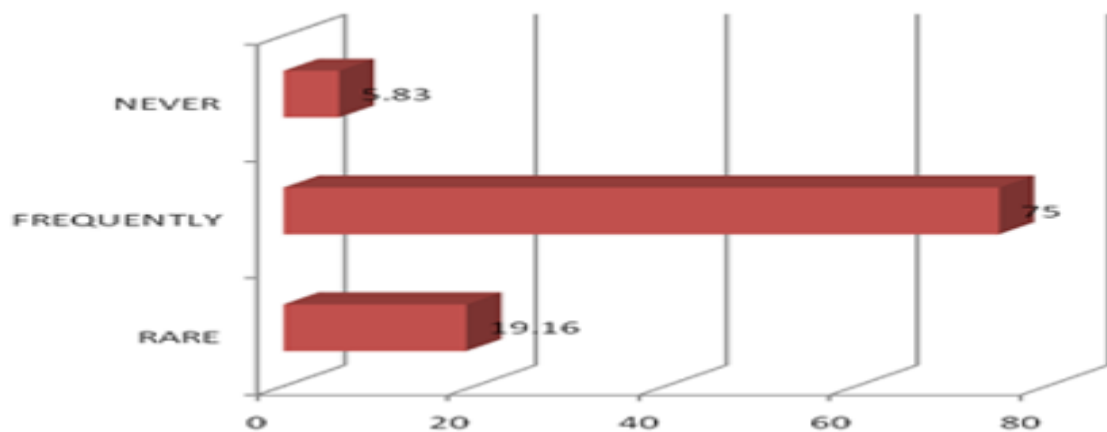


Chart 4.1.14 Chart representing Training in project management related concepts in IMind Technologies

Interference

From the above table Training in project management related concepts is inferred that 19.16% respondents answered training is Rarely done, 75% of major respondents answered the training is Frequently done and 5.83% respondents say the training has Never done.

Inference

From the analysis it is said the training is done frequently in IMind technology.

Table 4.1.15Table showing the Opinion about the project management activities in IMind Technologies

PROJECT MANAGEMENT ACTIVITIES	NO. OF RESPONDENTS	PERCENTAGE
Highly satisfied	64	53.33
Satisfied	39	32.5
Neutral	11	9.166
Dissatisfied	2	1.66
Highly dissatisfied	4	3.33
Total	120	100

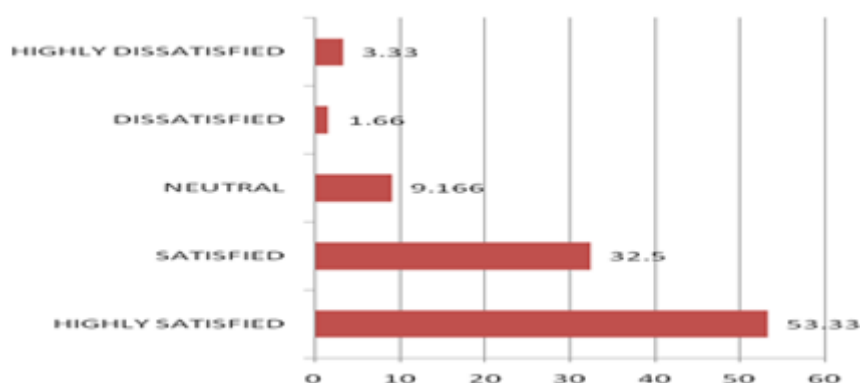


Chart 4.1.15 Chart representing Opinion about the project managers with regard to recognition for outstanding work done in IMind Technologies

Interference

From the above table the Opinion about the project managers with regard to recognition for outstanding work done infer that 53.33% are highly satisfied, 32.5%

respondents are Satisfied,9.166% of respondents are Neutral, 1.66% of respondents are Dissatisfied and 3.33% of respondents are Highly dissatisfied.

Inference

From the respondents answers it is inferred that they are highly satisfied with the project managers involvement and activities for the purpose of project management activities.

Table 4.1.16 Table showing the Support is given by the project managers to complete the project

SUPPORT	NO. OF RESPONDENTS	PERCENTAGE
Strongly agree	46	38.33
Agree	52	43.33
Neutral	16	13.33
Disagree	2	1.66
Strongly disagree	4	3.33
Total	120	100

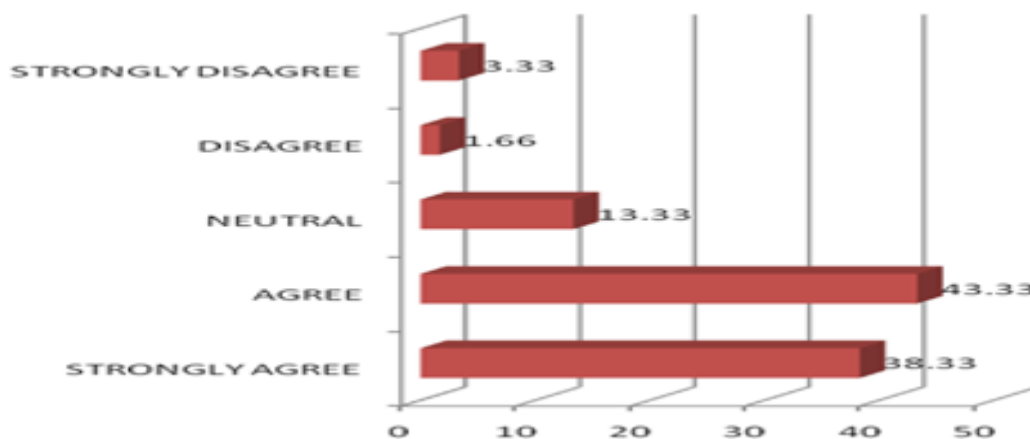


Chart 4.1.16 Chart representing Support is given by the project managers to complete the project

Interference

From the above table it is inferred that 38.33% of respondents strongly agree, 43.33% of respondents Agree, 13.33% of respondents are Neutral, 1.66% respondents are Disagreed and 3.33% of respondents strongly disagreed with Support given by the project managers to complete the project.

Inference

It is inferred that majority of respondents agree with the support given by the project managers to complete the project.

Table 4.1.17 Table showing the Top managers are aware of the methodologies used for managing projects

AWARENESS OF THE METHODOLOGIES	NO. OF RESPONDENTS	PERCENTAGE
Strongly agree	53	44.166
Agree	51	42.5
Neutral	10	8.33
Disagree	1	0.83
Strongly disagree	5	4.16
Total	120	100

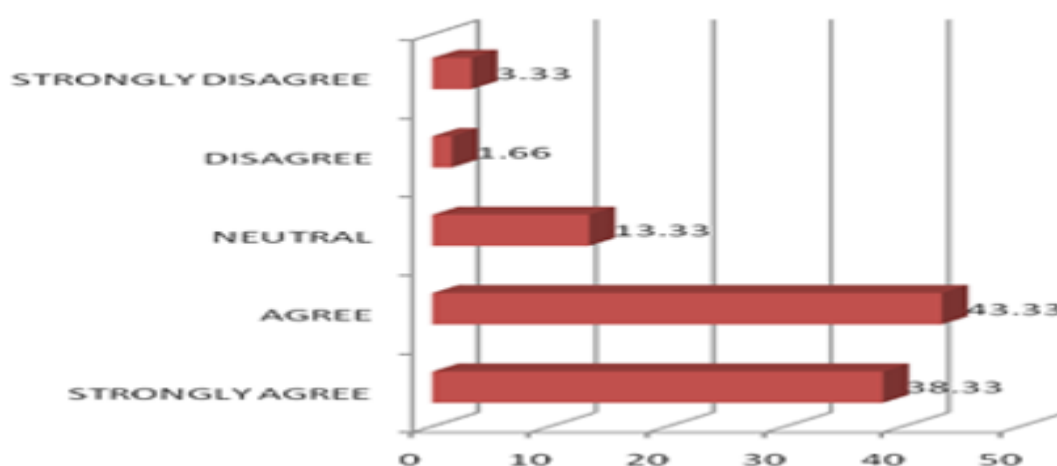


Chart 4.1.17 Chart representing Top managers are aware of the methodologies used for managing projects

Interference

From the table it is inferred that 38.33% respondents strongly agree, 43.33% of respondents that they agree, 13.33% of respondents are Neutral, 1.66% of respondents Disagree and 3.33% of respondents Strongly disagree about Top managers are aware of the methodologies used for managing projects.

Inference

From the respondents it is inferred that many respondents Agree with the Top managers are aware of the methodologies used for managing projects.

Table 4.1.18 Table showing the Usually work on many interfaces with other systems and services or projects

USUALLY WORK ON MANY INTERFACES	NO. OF RESPONDENTS	PERCENTAGE
A very large number of interfaces	64	53.33
A large number of interfaces	15	12.5
A small number of interfaces	35	29.16
No interface	6	5
Total	120	100

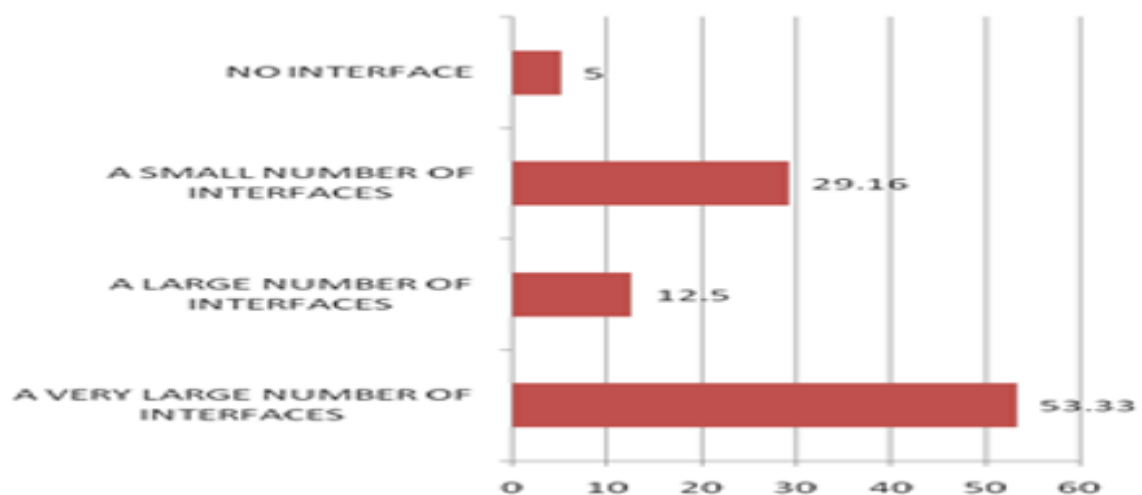


Chart 4.1.18 Chart representing the usually work on many interfaces with other systems and services or projects

Interference

From the above table it is inferred that 53.33% of respondents have a Very Large Number of Interfaces, 12.5% of respondents have a Large Number Of Interfaces, 29.16% respondents have a Small Number Of Interfaces and 5% of respondents say they have No Interfaces.

Inference

From the respondents it is inferred that they have very large interfaces connected to a system and followed with Small number of interfaces and only few have responded they follow no interface to a system.

Table 4.1.19 Table showing the Documentation work is necessary for project management in IMind Technologies

DOCUMENTATION WORK	NO. OF RESPONDENTS	PERCENTAGE
Strongly agree	58	48.33
Agree	29	24.16
Neutral	19	15.83
Disagree	9	7.5
Strongly disagree	5	4.16
Total	120	100

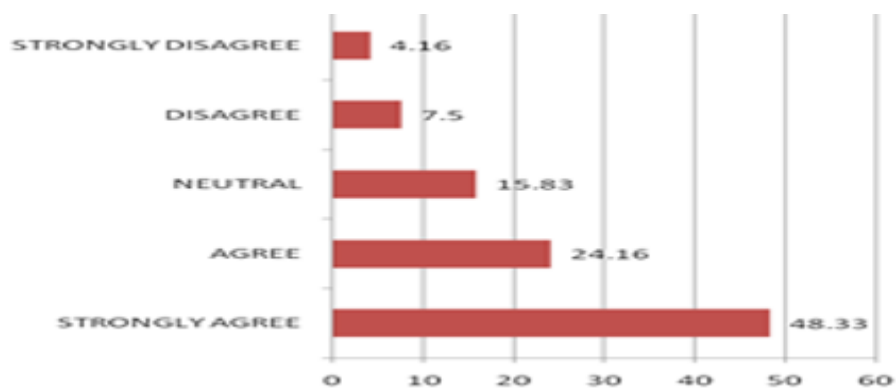


Chart 4.1.19 Chart representing Documentation work is necessary for project management in IMind Technologies

Interference

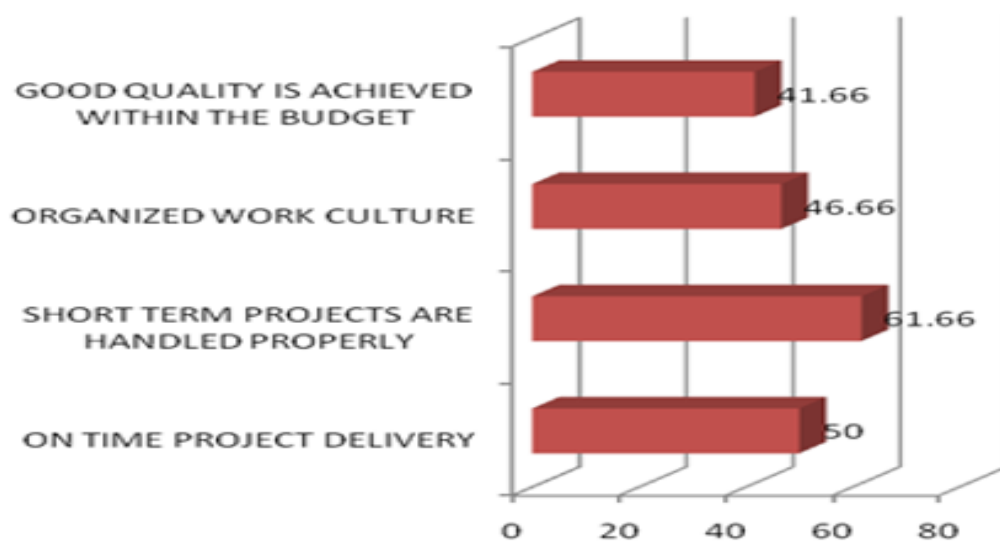
From the above table the documentation work is necessary for project management that the respondents infer that 48.33% of respondents Strongly Agree, 24.16% of respondents Agree, 15.83% of respondents are Neutral, 7.5% of respondents Disagree and 4.16% of respondents Strongly Disagree with it.

Inference

It is inferred that the respondents strongly agree with the documentations work is necessary and followed at IMind technologies.

Table 4.1.20 Table showing the Effect of project management in company

EFFECT OF PROJECT MANAGEMENT	NO. OF RESPONDENTS	PERCENTAGE
On time project delivery	60	50
Short term projects are handled properly	74	61.66
Organized work culture	56	46.66
Good quality is achieved within the budget	50	41.66
Total	240	100



**Chart 4.1.20 Chart representing in Effect of project management in company
IMind Technologies**

Interference

From the above table showing the Effect of project management in company the respondents infer that 50% of respondents answered on time project delivery, 51.66% of respondents insist short term project are handled properly, 46.66% of respondents have organized work culture and 41.66% answered good quality is achieved within the budget.

Inference

It is inferred that Effect of project management in company the respondents infer that 51.66% of respondents insist short term project are handled properly and 41.66% answered good quality is achieved within the budget.

4.2 CHI-SQUARE TEST

Chi-square is the sum of the squared difference observed (o) and the expected (e) data (or the deviation, d), divided by the expected data in all possible categories.

4.2.1 CHI-SQUARE TEST

Null hypothesis (Ho)

There is no relationship between the work experience of the employees and Opinion about the project management activities in IMind Technologies.

Alternate hypothesis (H1)

There is relationship between the work experience of the employees and Opinion about the project management activities in IMind Technologies.

Experience of the Respondents * Opinion about the project management activities in IMind Technologies Crosstabulation

			Opinion about the project management activities in imind technologies					TOTAL
			Highly satisfied	Satisfied	Neutral	Dissatisfied	Highly dissatisfied	
Experience of the Respondents	Less than 6 year	Count	25	24	2	1	0	52
		Expected count	25.0	20.4	4.1	2.1	1.4	52.0
	6-10 years	Count	0	20	6	2	4	32
		Expected count	8.0	9.5	1.7	.5	.3	32.0
	10-15 years	Count	14	2	10	1	0	10
		Expected count	4.0	4.8	.8	.2	.2	10.0
	15-20 years	Count	4	5	1	3	0	13
		Expected count	1.2	1.4	.2	.1	.0	13.0
	Above 20 years	Count	4	0	4	3	2	13
		Expected Count	.8	1.0	.2	.0	.0	13.0
	Total	Count	47	51		3	2	120
		Expected Count	48.0	57.0	10.0	3.0	2.0	120.0

Chi-Square Tests

	VALUE	DF	ASYMP. SIG. (2-SIDED)
Pearson Chi-Square	3.838E2 ^a	16	.622
Likelihood Ratio	144.631	16	.689
Linear-by-Linear Association	86.881	1	.501
N of Valid Cases	120		

Since P value is more than 0.05, the null hypothesis is accepted at 5% level with regard to dimension of the work experience of the employees and Opinion about the project management activities in IMind Technologies.

Hence, the null hypothesis [H₀] is accepted.

INFERENCE

Since the calculated value is lesser than the tabulated value, we accept the null hypothesis and hence, there is no relationship between the work experience of the employees and Opinion about the project management activities in IMind Technologies.

4.2.2 CHI SQUARE TEST

Chi-square is the sum of the squared difference observed (*o*) and the expected (*e*) data (or the deviation, *d*), divided by the expected data in all possible categories.

Null hypothesis (H₀)

There is no relationship between respondents Duration of the primary project(s) that works on and Support is given by the project managers to complete the project.

Alternate hypothesis (H₁)

There is relationship between respondents Duration of the primary project(s) that works on and Support is given by the project managers to complete the project.

Duration of the primary project(s) that work on * Support is given by the project managers to complete the project Crosstabulation

			Support is given by the project managers to complete the project					Total
			Strongly agree	Agree	Neutral	Disagree	Strongly disagree	
Duration of the primary project(s) that work on	UP TO 3 MONTHS	Count	4	7	3	2	0	16
		Expected Count	4.2	4.8	1.5	.2	.4	11.0
	3 TO 6 MONTHS	Count	18	2	1	0	2	23
		Expected Count	8.8	10.0	3.1	.4	.8	23.0
	6 MTHS TO 1 YEAR	Count	12	52	13	0	0	77
		Expected Count	29.5	33.4	10.3	1.3	2.6	77.0
	1 TO 2 YEARS	Count	0	0	3	2	4	9
		Expected Count	3.4	3.9	1.2	.2	.3	9.0
Total		Count	46	52	16	2	4	120
		Expected Count	46.0	52.0	16.0	2.0	4.0	120.0

Chi-Square Tests

	VALUE	DF	ASYMP. SIG. (2-SIDED)
Pearson Chi-Square	1.586E2 ^a	12	.429
Likelihood Ratio	132.462	12	.895
Linear-by-Linear Association	62.537	1	.422
N of Valid Cases	120		

Hence, the null hypothesis [H₀] is accepted.

INFERENCE

Since the calculated value is lesser than the tabulated value, we accept the null hypothesis and hence, there is no relationship between respondents Duration of the primary project(s) that works on and Support is given by the project managers to complete the project.

4.3 CORRELATION

Correlation analysis is the statistical tool used to measure the degree to which two variables are linearly related to each other. Correlation measures the degree of association between two variables.

4.3.1 CORRELATION

Null hypothesis (H₀)

There is a positive relationship between the members in project team and duration of the primary project(s) that works on.

Alternate hypothesis (H₁)

There is a negative relationship between the members in project team and duration of the primary project(s) that works on.

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Correlations

		MEMBERS	DURATION OF THE PRIMARY PROJECT THAT WORK ON
Members	Pearson correlation	1	.830**
	Sig. (2-tailed)		.000
	N	120	120
Duration of the primary project that work on	Pearson correlation	.830**	1
	Sig. (2-tailed)	.000	
	N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

$r = .830$

INTERFERENCE

Since r is positive, there is a positive relationship between the members in project team and duration of the primary project(s) that works on. It is about 83% of the relationship is positive regarding the project team members they are carrying on and duration of the primary projects they are working on.

INFERENCE

From the respondent's analysis it is said 83% of the relationship is positive regarding the project team members they are carrying on and duration of the primary projects they are working on.

4.3.2 CORRELATION

Correlation analysis is the statistical tool used to measure the degree to which two variables are linearly related to each other. Correlation measures the degree of association between two variables.

Null hypothesis (H0)

There is a positive relationship between the level of product or technical innovation in projects and training in project management related concepts in IMind Technologies

Alternate hypothesis (H1)

There is a negative relationship between the level of product or technical innovation in projects and training in project management related concepts in IMind Technologies.

CORRELATIONS

		LEVEL OF PRODUCT OR TECHNICAL INNOVATION IN PROJECTS	TRAINING IN PROJECT MANAGEMENT RELATED CONCEPTS IN IMIND TECHNOLOGIES
Level of product or technical innovation in projects	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	120	120
Training in project management related concepts in IMind Technologies	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

$r = .671$

INTERFERENCE

Since r is positive, there is a positive relationship between the level of product or technical innovation in projects and training in project management related concepts in IMind Technologies. It is interfered that 67% of the relationship are positive regarding the relationship between the level of product or technical innovation in projects and training in project management related concepts.

INFERENCE

From the respondent's analysis is it observed that there is 67% positive relationship between the level of product or technical innovation in projects and training in project management related concepts in IMind Technologies.

CHAPTER 5

FINDINGS AND SUGGESTIONS

5.1 FINDINGS OF THE STUDY

- 53.3% of respondents are male and 46.6% respondents are female.
- 48.3% of respondents are between the age of less than 25, 38.3% of respondents are between the age group of 26-35, 12.5% of respondents are in the age of 36-45 and 0.83% of respondents are above 45.
- 73.3% of respondents are married and 26.6% of respondents are single.
- 5% of respondents are getting the monthly income above RS.10000 and 54.1% of respondents are between 20000 – 30000.
- 65% of respondents are under graduates and 0.83% of respondents have completed Diploma.
- 70.83% are less than 6 years and 1.66% respondents are experienced above 20 years.
- 60% are software developers and 11.66% of respondents are Management staffs.
- 68.33% respondents are working under cloud computing and 31.66% respondents are working under Application or cloud computing services.
- 40.83% respondents are in team of 16-20 members and 11.66% respondents are in team of more than 20 members.
- 64.16% have duration of 6 months to 1 year and 7.5% have duration of 1 to 2 years to complete the project.
- 8.33% of respondents inferred they follow Low Level of Innovation and 61.66% respondents infer they follow Standard Product And Technology.
- Mostly 80% follows Traditional method and Extreme Project Management Methodologies, 35% respondents follow Critical Chain Project Management and 19,16% respondents follow Agile Project Management.
- The people working in I mind technology have their opinion that 47.5% respondents are Satisfied and 1.66% respondents are highly dissatisfied.
- Training in project management related concepts is inferred that 75% of major respondents answered the training is Frequently done and 5.83% respondents say the training has Never done.

- Opinion about the project managers with regard to recognition for outstanding work done infer that 53.33% are highly satisfied, 1.66% of respondents are Dissatisfied and 3.33% of respondents are Highly dissatisfied.
- 43.33% of respondents that they agree, 13.33% of respondents are Neutral, 1.66% of respondents Disagree and 3.33% of respondents Strongly disagree about Top managers are aware of the methodologies used for managing projects.
- 53.33% of respondents have a Very Large Number of Interfaces and 5% of respondents say they have No Interfaces.
- The documentation work is necessary for project management that the respondents infer that 48.33% of respondents Strongly Agree and 4.16% of respondents Strongly Disagree with it.
- Effect of project management in company the respondents infer that 51.66% of respondents insist short term project are handled properly and 41.66% answered good quality is achieved within the budget.

5.1.2 CHI- SQUARE TEST

- There is no relationship between the work experience of the employees and Opinion about the project management activities in IMind Technologies.
- There is no relationship between respondents Duration of the primary project(s) that works on and Support is given by the project managers to complete the project.

5.1.3 CORRELATION

- There is a positive relationship between the members in project team and duration of the primary project(s) that works on.
- There is a positive relationship between the level of product or technical innovation in projects and training in project management related concepts in IMind Technologies.

5.2 SUGGESTIONS

- Organization can implement their project management system in traditional approach.

- The management should take more initiative to update and improve the project management system.
- Management can arrange more training programme for the employees.
- Project management software should be updated to get flexible access for the employees.
- Another important factor in determining the acceptance of PM software by project managers is the functionalities and the features that are supported by the tool.
- Employees are more willing to use the software that provides them with a full spectrum of features and functions that are relevant to their work.
- Employees are looking for the software that allows them to communicate and collaborate with their team members and provides them with the necessary features to plan and control their projects.
- User friendliness is also an issue for project managers, but it is not as important as the information quality and functionality.
- They are more willing to cope with some difficulties if the system provides them with important needed information for their jobs.

Project Management and the practice of the same have become indispensable to the modern-day project manager and they form the basis of much of what is achieved during the course of a project. Thus, the idea of a project being managed professionally lends itself to the concepts and processes laid out for the practitioners of the art of Project Management in construction.

5.3 CONCLUSION

Project management is the discipline of planning, organizing, motivating, and controlling resources to achieve specific goals. The primary challenge of project management is to achieve all of the project goals and objectives while honouring the preconceived constraints. The primary constraints are scope, time, quality and budget. The secondary and more ambitious challenge is to optimize the allocation of necessary inputs and integrate them to meet pre-defined objectives.

In this study concentrates all departments of project management and it reveals the pros and cons of implementing project management to the company. Through this study I suggest software Companies to provide more training to the employees. With this study it is clearly identified that the company take more effort to implement project strategy.

The findings also suggest that a benefits management strategy integrated into the corporate governance processes helps organizations to increase their ability to define and manage their success criteria. More importantly, benefits management helps to put in place a key condition for project success. This is the alignment between project management teams, sponsors and clients, in order to deliver successful and valuable changes to the organization and shareholders through the development of strategic resources.

References

- Abdullah Saeed Bani Ali, William H. Money, A Study of Project Management System Acceptance, Proceedings of the 38th Hawaii International Conference on System Sciences – 2005 DOI Bookmark 10.1109/HICSS.2005.53, Volume 8, Year 2005, Pages 234c.
- AbdallahLalmi,^aGabrielaFernandes^b,Sassi Boudemagh Souad. A conceptual hybrid project management model for projects management, International Conference on Project Management / HCist - International Conference on Health and Social Care Information Systems and Technologies.
- Amgad Badewi, The impact of project management (PM) and benefits management (BM) practices on project success Towards developing a project benefits governance framework. International Journal of Project Management, Volume 34, Issue 4, Year May 2016, Pages 761-778.
- Anna I. Belaya; Ilya V. Tchancev; Maria A. Kossukhina, The selection of the corporate information system for innovative project management tasks, 2017 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (ElConRus)Year 27 April 2017, ISBN 978-1-5090-486.
- Eduardo Martins Serraa, Martin Kuncb, Benefits Realisation Management and its influence on project success and on the execution of business strategies, International Journal of Project Management, Volume 33, Issue 1, Year 2015 January 2015, Pages 53-66.
- Franco caron, Fabrizio Ruggeri, Beatrice Pierini, A Bayesian approach to improving estimate to complete, International journal of project management, Volume34, issue 8, 2013, Page-1687-1702.
- Harrison A. Mesa, Keith R. Molenaar, Luis F. Alarcón, Exploring performance of the integrated project delivery process on complex building projects Harrison, International Journal of Project Management, Volume 34, Issue 7, October 2016, Pages 1089-1101

- Gilberto Francisco de Oliveira, Roque Rabechini Jr, Stakeholder management influence on trust in a project A quantitative study, International Journal of Project Management, Volume 37, Issue 1, January 2019, Pages 131-144.
- Jun Jie Ng; Kah-Hin Chai, A bibliometric analysis of Project Management research, 2015 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM) Year 21 January 2016.
- Laya Parvizedghy; Mohammad Hossein Sobhiyah, International projects risk management in the construction industry, 2011 International Conference on Business Management and Electronic Information, 23 June 2011, ISBN 978-1-61284-109-0.
- Maartina Huemann, Anne Keegan, Ralf Muller, Managing the project based organization, International journal of project management, Volume 34, issue 8, Nov 2016, Page 1670-1671
- Mas'ud Adhi Saputra, Arry Akhmad Arman, An Analysis of Software Project Management, Year 2015, Publisher IEEE, International Conference on Information Technology Systems and Innovation (ICITSI) Bandung – Bali, November 16 – 19, 2015 ISBN 978-1-4673-6664-9.
- Henry a. Hornstein, The integration of project management and organizational change management is now a necessity, International journal of project management, vol 33, Issue 2, Feb 2015, Pages 291-298
- Hoang, Nhat Minh, Project Management Software and Its Utilities, Year 2014, LAHTI UNIVERSITY OF APPLIED SCIENCES Degree Programme in Business Information Technology Bachelor's Thesis Winter 2014.
- Hong Long Chen, Wei Tong Chen, Ying Lien Lin, Earned value project management Improving the predictive power of planned value, International Journal of Project Management, Volume 34, Issue 1, Year January 2016, Pages 22-29

- Herb Saunders, P.E., Member, ASCE; and Ed DeSimone, Project Management Training and Community Service, Leadership and Management in Engineering, Vol. 3, Issue 4 Year (October 2003)
- Kadir Alpaslan Demir, A Survey on Challenges of Software Project Management, Department of Computer Science, Naval Postgraduate School, Monterey, CA, 93943, USA, 2009.
- Lavagnon A. Ika, Project Success as a Topic in Project Management Journals, International Journal of Project Management, Project Management Journal 40(4) page 6 - 19 Year December 2009.
- Mariska M.G. de Rooij, Martyna Janowicz-Panjaitan, Remco S. Mannak,, A configurational explanation for performance management systems' design in project-based organizations, Mariska M.G. de Rooij, Martyna Janowicz-Panjaitan, Remco S. Mannak, International Journal of Project Management ,Volume 37, Issue 5, year July 2019, Pages 616-630.
- Martina huemann, Anne keegan, Ralf Muller, Managing the project based organization. International journal of project management, Volume 34, Issue 8, 1670-1671.
- Michael Bommer; Renee DeLaPorte,.James Higgins Title Skunkworks Approach to Project Management Journal of Management in Engineering, Issue Vol. 18, Issue 1 (January 2002),
- Miguel LinharesPinheiro^a, PauloSerôdio^b, José CarlosPinho,^aCândidaLucas^c,Title The role of social capital towards resource sharing in collaborative R&D projects Evidences from the 7th Framework Programme, Volume 34, Issue 8, November 2016, Pages 1519-1536
- Mirosław J. Skibniewski, M.ASCE; and Gustavo A. Vecino, Web-Based Project Management Framework for Dredging Project, Journal of Management in Engineering, Vol. 28, Issue 2 (April 2012) Year April 2012.

- V.K. Narayanan, Martina Huemann, Title Engaging the organizational field The case of project practices in a construction firm to contribute to an emerging economy, International Journal of Project Management, Volume 7 issue 4, 778-780.
- Na Mi Nguyen, Catherine P. Killen, Alexander Kock, Hans Georg Gemünden, The use of effectuation in projects The influence of business case control, portfolio monitoring intensity and project innovativeness, International Journal of Project Management, Volume 36, Issue 8, Year November 2018, Pages 1054-1067.
- Michael Bommer; Renee DeLaPorte, James Higgins, Skunkworks Approach to Project Management, Journal of Management in Engineering, Issue Vol. 18, Issue 1 (January 2002) .
- Oladipo Awojide, Ian R. Hodgkinson, M.N. Ravishankar, Managerial ambidexterity and the cultural toolkit in project delivery, International Journal of Project Management, Volume 36, Issue 8, November 2018, Pages 1019-1033.
- Peter j. zipf, Technology-Enhanced Project Management, Journal of Management in Engineering, Year Volume 16, Issue 1 (January 2000).
- Raynold O. Folland, M. ASCE, Project Management Communication, Journal of Professional Issues in Engineering, Vol. 109, Issue 1 (January 1983) Year January 1983.
- Richard Peterson, Project Management Risks at Financial Backgrounds. International Journal of Information Technology Project Management, 2010.
- Shuangqin Liu; Cheng Liu, Management Innovation of IT Project Managers, 20 January 2011, Print ISBN 978-1-4244-8829-2, 2010 3rd International Conference on Information Management, Innovation Management and Industrial Engineering.

- Dr. Steven D. Eppinger, The Journal of Modern Project Management, 2013, Academic Journal Mundo Press – Mundo PM & JMPM Publishing House, Volume 8 , 966-971.
- Stuart D. Green,Natalya Sergeeva, Value creation in projects Towards a narrative perspective, International Journal of Project Management, Volume 37, Issue 5, July 2019, Pages 636-651.
- Sungmin Yun, Jiyong Choi, Daniel P. Oliveira, Stephen P. Mulva, Youngcheol Kang, Measuring project management inputs throughout capital project delivery, Volume 34, Issue 7, October 2016, Pages 1167-1182,
- Svetlana cicmil, Understanding project management practice through interpretative and critical research perspective, ISSN 8756-9728/034; volume 37, Pages 27-37, Year 2006 .
- Yajuan Wang, Yi Liu, Cem Canel, Process coordination, project attributes and project performance in offshore-outsourced service projects, International Journal of Project Management, Volume 36, Issue 7, October 2018, Pages 980-991.
- William M. Hayden, Jr., P.E., Fellow, ASCE , The Emerging Role Of Project Management, Leadership and Management in Engineering, Vol. 1, Issue 2 (April 2001) .April 01, 2001.
- Xin-hua Wu; Hong-jun Jia, Research on enterprise project management capability evaluation index system, Year 04 August 2011,Electronic ISBN 978-1-4244-9763-8,Print ISBN 978-1-4244-9762-1, 2011 International Conference on Computer Science and Service System (CSSS)

BOOKS

- Clifford F. Gray, Gautm V. Desai ,Project Management- The Managerial process, Information system management 2017.
- Brett Harned, Project Management for Humans Helping People Get Things Done, Information system management 2017.
- Daniel Coyle, The Culture Code - The Secrets of Highly Successful Groups, Information system management 2018
- Parth Detroja, Neel Mehta, Aditya Agashe ,The Primer on Technology and Business Strategy, Information system management, 2019
- Parth Detroja, Neel Mehta, Aditya Agashe, Managing Projects in a Complex World through Internet, Managing E- business 2018.

APPENDIX I- (QUESTIONNAIRE)
A STUDY ON EFFECTIVENESS OF PROJECT MANAGEMENT

1. Name

2. Gender : M / F

3. Marital Status Married / Unmarried

4. Age group : a] Less than 25 b]26-35 c]36-45 d] Above45

5. Experience (in Years)

 a] Less than 6 b] 6-10 c] 10- 15 d] 15-20 e] Above 20

6. Income level : a] less than 10000 b] 10000-20000 c] 20000-30000 d]
30000 & above

7.Educational qualification : (Mention highest level of education obtained)

- a) Undergraduate degree
- b) Master's certificate [Postgraduate]
- c) Technical course qualification

8. Designation

- a) Software developer_ project team member
- b) Project manager
- c) Team leader
- d) HR

9. What is the primary business activity you are working on?

- a) Application / Cloud computing services
- b) Cloud computing

10. Number of members in your project team

a) Less than 7

b) 7-15

c) 16-20

d) More than 20

11. What is the typical duration of the primary project(s) that you work on?

a) Up to 3 months

b) 3 to 6 months

c) 6 months to 1 year

d) 1 to 2 years

e) 2 years

12. What is the level of product or technical innovation in your projects?

a) High level of innovation

b) Low level of innovation

c) Standard product and technology

13. What kind of project management method is your preference in I mind Technologies?

a) Traditional approach

b) PRINCE2

c) Projects integrating Sustainable Methods

d) Critical chain project management

e) Event chain methodology

f) Agile project management

g) Lean project management

h) Extreme project management

14. What is your opinion about the project management activities in I mind Technologies?

a) Highly satisfied

b) Satisfied

c) Neutral

d) Dissatisfied

e) Highly Dissatisfied

15. Rank the major constraints of project management in your I mind

Technologies from 1-5

Constrains	1	2	3	4	5
Scope					
Time					
Quality					
Budget					
Performance					

16. Have you ever got training in project management related concepts in I mind

Technology?

- a) Rare
- b) Frequently
- c) Never

17. What is your opinion about the project managers with regard to recognition for outstanding work done in I mind Technology?

- a) Highly satisfied
- b) satisfied
- c) Neutral
- d) Dissatisfied
- e) Highly dissatisfied

18. Full support is given by the project managers to complete the project

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

19. Company's top managers are aware of the methodologies used for managing projects

- a) Strongly agree

- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

20. Do the projects you usually work on have many interfaces with other systems and services or projects?

- a) A very large number of interfaces
- b) A large number of interfaces
- c) A small number of interfaces
- d) No interface

21. Documentation work is necessary for project management in I mind Technology?

- a) Strongly agree
- b) Agree
- c) Neutral
- d) Disagree
- e) Strongly disagree

22. What is the effect of project management in your company?

- a) On time project delivery
- b) Short term projects are handled properly
- c) Organized work culture
- d) Good quality is achieved within the budget

23. Rank the project, portfolio performance

	1	2	3	4	5
a) Projects meet their operational performance					

b) Projects meet their technical performance goals					
c) Projects meet their schedule objectives					
d) Projects stay with budget limits					

24. Any suggestions to improve the project management activities in your company?

APPENDIX-II (ARTICLE)

A STUDY ON EFFECTIVENESS OF PROJECT MANAGEMENT

BIBIANA B, Ms. KAVITHA RAJAYOGAN

MBA Student, Sathyabama Institute of Science and Technology, Chennai

Assistant Professor, Sathyabama Institute of Science and Technology

Email Id: bibiana.bibo@gmail.com kavitha2984@gmail.com

ABSTRACT

The project success is the most mentioned topic of the project management, typically it's noted regarding the influence of project management success on the success of projects approaching. Despite the huge array of project management literature and trainings out there, project management methodologies fail to deliver a consistent project success. This analysis analyses the study of project management activities trained in IT sector and therefore, the information of project practitioners is collected. The collected information instructed that the key of prospering comes implementations, however they don't totally utilize modern project management tools and techniques to their capabilities. The influence of project management tools and techniques on project success depends on the practitioners coaching, the temporal order and level of implementation achieved, whereas the human issue plays a vital half for achieving project success.

Here, in this paper we have a tendency to discuss regarding the methodologies used and therefore, the practices and training for concluding the project success and delivery rates, the importance of documentations followed at certain IT sector.

Keywords: Project management, Effectiveness, management, data analysis, project, Information technology, Documentation, Project manager.

1.INTRODUCTION

Project management effectiveness is most necessary as it refers to the project success. Each the success of the project and also the career path of the project manager will rely upon the operating relationships and expectations established with superior management. to possess an improved management on the project, the project is has been split into totally different phases. every section defines the tasks

and activities that might to be completed inside specific period. It additionally outlines specific percentage team members are allotted in every section so all resources such that it achieves to their full potential. The implementation of efficient, efficient, and uniform method for manufacturing the key documents that needed to implement a replacement project with success of the project that the use of documentation of project is necessary as an example, these documents would possibly embrace, business cases, project standing reports, and project demand sheets. Thus, the project documentation method outlines a transparent approach for organizing these essential project documents. It says however necessary is project documentation and the way with success the project is enforced by technologies and innovation that can be driven by the team leaders and project managers. Initially, to coach the workers and eminent lead and support in effective completion of comes that however way they're with the project management activities. Here we are going to perceive the methodologies used, impact of project management activities to realize the goals inside the organization within the given time and budget.

STATEMENT OF THE PROBLEM

Software Project implementation success is about more than the mechanics of project-integration.

- To understand project management processes must and consider how to engage employees from the beginning.
- To find out the effect of project management on the productivity in software companies.
- To know the company's usage software development lifecycle and to achieve the goals within the given time and budget.

OBJECTIVE OF THE STUDY

PRIMARY OBJECTIVE

- To study on the effectiveness of project management followed at Information Technology, Chennai.

SECONDARY OBJECTIVES

- To identify the effectiveness of current project management process in Information Technology.

- To understand the most preferred project management methods by the employees in Information Technology.
- To know the impact created by the project managers in the project management.
- To find the necessity of project management software and the documentation process.

2. RESEARCH METHODOLOGY

This may be the foremost necessary variety of sample. A random sample permits a notable chance that every elementary unit are going to be chosen. For this reason, it's generally spoken as a chance sample. The target population is the collection of elements or objects of the Sector of people that process the information sought out by the researcher and about which inferences are to be made. My population for analysis is target on Information Technology employees.

The sample size for the study is 120 employees of Information Technology.

2.3.1 PERCENTAGE ANALYSIS

S.NO	PARTICULARS	NO. OF RESPONDENTS	PERCENTAGE
1	GENDER		
	Male	64	53.33
	Female	56	46.66
	Total	120	100
2	AGE		
	Less than 25	58	48.33
	26-35	46	38.33
	36-45	15	12.5
	Above 45	1	0.83
	Total	120	100
3	GRADUATION		
	Undergraduate degree	78	65
	Master's certificate [postgraduate]	30	25
	Technical qualification course	11	9.16
	Diploma	1	0.833
	Total	120	100
4	NATURE OF JOB		
	Software developer	72	60
	Associate/junior consultant	25	20.83

	Senior consultant	9	7.5
	Management staff /manager	14	11.66
	Total	120	100

2.3.2 CHI SQUARE ANALYSIS

Table showing the Duration of the primary project(s) that work on and Support is given by the project managers to complete the project

Chi-Square Tests

	VALUE	DF	ASYMP. SIG. (2-SIDED)
Pearson Chi-Square	1.586E2 ^a	12	.429
Likelihood Ratio	132.462	12	.895
Linear-by-Linear Association	62.537	1	.422
N of Valid Cases	120		

Hence, the null hypothesis [H0] is accepted. There is no relationship between Duration of the primary project(s) that works on and Support is given by the project managers to complete the project.

2.3.3 CORRELATION

Table Showing The Level of Product technical innovation and training.

		Level of product or technical innovation in projects	Training in project management related concepts in it
Level of product or technical innovation in projects	Pearson Correlation	1	.671**
	Sig. (2-tailed)		.000
	N	120	120
Training in project management related concepts in IT	Pearson Correlation	.671**	1
	Sig. (2-tailed)	.000	
	N	120	120

** . Correlation is significant at the 0.01 level (2-tailed).

$$r = .671$$

From the respondent's analysis it is observed that there is 67% positive relationship between the level of product or technical innovation in projects and training in project management related concepts in Information Technologies.

3. FINDINGS

53.3% of respondents are male and 46.6% respondents are female. So there is equal employment is prevailing in IT sector. 48.3% of respondents are between the age of less than 25. So mostly there are less than 25 age people working in this IT industry. 65% of respondents are under graduates. Majority people working are Undergraduate here and majorly 60% are software developers. There is no relationship between the work experience of the employees and Opinion about the project management activities in Information Technologies. There is a positive relationship between the level of product or technical innovation in projects and training in project management related concepts in Information Technologies.

4. CONCLUSION

Project management is that the discipline of designing, organizing, motivating, and dominant resources to realize specific goals. the first challenge of project management is to realize all of the project goals and objectives whereas procrastinating the create by mental act constraints. the first constraints scope, time, quality and budget. The secondary and a lot of bold challenge is to optimize the allocation of necessary inputs and integrate them to fulfill pre-defined objectives.

In this study concentrates all departments of project management and it reveals the execs and cons of implementing project management to the corporate. Through this study I recommend software system corporations to produce a lot of coaching to the workers. With this study it's clearly known that the corporate takes a lot of effort to implement project strategy.

5. REFERENCES

1. AbdallahLalmi,^aGabrielaFernandes^b,Sassi Boudemagh Souad. A conceptual hybrid project management model for projects management, International Conference on Project Management / HCist - International

Conference on Health and Social Care Information Systems and Technologies.

2. Amgad Badewi, The impact of project management (PM) and benefits management (BM) practices on project success Towards developing a project benefits governance framework. International Journal of Project Management, Volume 34, Issue 4, Year May 2016, Pages 761-778.
3. Anna I. Belaya; Ilya V. Tchancev; Maria A. Kossukhina, The selection of the corporate information system for innovative project management tasks, 2017 IEEE Conference of Russian Young Researchers in Electrical and Electronic Engineering (ElConRus)Year 27 April 2017, ISBN 978-1-5090-486.
4. Eduardo Martins Serraa, Martin Kuncb, Benefits Realisation Management and its influence on project success and on the execution of business strategies, International Journal of Project Management, Volume 33, Issue 1, Year 2015 January 2015, Pages 53-66
5. Franco caron, Fabrizio Ruggeri, Beatrice Pierini, A Bayesian approach to improving estimate to complete, International journal of project management, Volume34, issue 8, 2013, Page-1687-1702.