

ANALYSIS VARIOUS TYPES OF INFRASTRUCTURE PROJECTS WITH RESPECT TO ACTIVITY, COST AND TIME

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ABSTRACT

Indian is very fast developing country in compare to construction industry. In India Construction Industry have various type of working areas and different projects, all this projects have deferent activity, completion time and cost, in this project we try to compare Various Infrastructure projects with each other in simulation network and make some conclusions to make an organization more productive and more profitable which depends on selection of different or same project through which we can make organization specialized or Technically strong in same project. In this project Comparison of Construction Project with each other will take place and from that we will determine the Activity profit ratio with respect to time, determine the cost required during project completion with the help of Simulation network, the simulation network will again compare the relative projects each other depends upon practical input and give the Desired results, this results can help to organization to determine the project profit ratio with each other, decision making to commencement of project.

Keywords: Activity, Duration of projects, Cashflow, Profit and loss, Qualit, Economical work

1. INTRODUCTION

The Indian construction industries have various type of project. Example – A) Infrastructures- Road, Bridge, Building, Compound Wall, Telecom Infra Structure B) Irrigation Projects- Pipe line , Dam , Elevated Storage Reservoirs C) Earth Work – Earth Excavation and Transportation , Canal Lining and widening, , cement concrete Bandara. This various types of project have different Factor for Completion with time and cost.

To complete this project required well planning with respect to Activity, cost, time, quality of work and also organization profit. This factors depends on some Practical Measures and Construction management Study which will try to increase the organization Productivity and performance, it means keeping cat's eye on the technical performance, schedule of working within budgetary cost for maintaining the profit ratio.

In this project some simulation network create and give the some practical input on various factor

depend upon -project duration(Time) ,Process, Man power , Machinery (Quality), cost , profit and margin and I will also try to improve the performance and Profitability of organization and give some conclusion to selection of projects and repetition of project for improving performance and technical improvement in profitable area.

Infrastructure projects are associated to delays in time, and fail to get the expected values and profit. In order to bridge this gap between project stakeholder expectations and project outcomes this research attempts to map the success dimensions for infrastructure projects provide a wider understanding of project success. However, the definition of project get success varies from stakeholder to stakeholder. So the success of construction projects can be evaluated with focus on project success definitions from the project's own point of view.

Infrastructure projects are different from other Construction projects. In order to define their success, we need more dimensions to consider these differences for a wide range of stakeholders, and manage a high budget influenced by political decisions, long time span for planning and executing etc. In terms of project ownership and project investment claimed that "Project ownership was found to have nuances for the governmental projects". Furthermore, Turner & Zolin (2012) define the "Owner and sponsor as separate roles". The quality of infrastructure has a big influence on improving the economic conditions (Spang, 2016)¹. Improving economic conditions includes the organizational capabilities and business conditions.

In order to apply this approach on Infrastructure projects, this research relates with projects success dimensions as shown in Figure 1 as functional success, management success, investment and ownership success, organizational success, business success and strategic success.



These factors include required resources and their levels of utilization, the times of occurrence of major activities, and cost. Some of the parameters that normally change during a project working condition include costs, time estimates, interest rates, revenues, budget availability, and performance. The uncertainties associates with these parameters are a concern for project managers. Robust tools must be

develop to forecast next events so that effective decisions can be made. An important aspect of decision analysis involving risky projects is the choice of decision model to be used. A decision model provides the basis for the analysis and synthesis of information. It constitutes the platform over which competing projects are compared. To be effective, a decision model must be based on a systematic and logical framework for guiding project decisions. A decision model can be a verbal, graphical, mathematical, or numeric representation of the factors involved in the decision-making process. The use of simulated data to drive a neural network model is an example of an integrated decision model. A good decision model would possess the following characteristics:

- The actual situation.
- Explanation and prediction of the actual situation.
- Applicability to similar problems.
- Validity and appropriateness.

Use of simulation network in this study we try to make good decision model to analysis different infrastructure project to each other to determine the profit and loss. This will help to improving the organization productivity and Profit.

1.1 Aim :

The aim of this study 'Analysis Various types of types of infrastructure project Such as Rigid Pavement (Concrete Road), Flexible Pavement (Bitumen Road), Compound wall (Structure Work), Building Work with respect to Time, cost and Activity so we can make organization more Profitable with Maintaining Quality.

1.2 Objective :

- To find out the various infrastructure projects Activity, duration of completion and cost.
- To analyze the different infrastructure project Constraints with respect to Cash Flow at the time of work.
- To evaluate the productivity of various Infrastructure projects with respect to organization profitability.
- To evaluate methodology for increasing the profitability of organization with respect to road constructions.
- To evaluate actual Cost working of Project by live working in single project.
- To compare exact Cost required for with ANN Technique.

2. Literature Review:

3.

2.2.1 (Science Direct: Civil Engineering and Urban Planning: An International Journal) **“STRATEGIC COST MANAGEMENT FOR CONSTRUCTION PROJECT SUCCESS: A SYSTEMATIC STUDY’S-**

T. G. K. Vasista Ph D, March 2019 [1]

Large construction projects are complex and dynamic. Projects start with ideas, investments and efforts. However, most of them do not achieve success. Unsuccessful projects are lack of knowledge on time, cost, scope and quality. The objective of the research is to considering only the time, cost, quality and scope as process success parameters and how cost element influence the project success when all other factor or element other than cost are represented in terms of cost factor with the contract conditions as basic rules or constraints that drive the strategic cost based on apply the CRASP methodology concept. The concepts of benchmarking provide meaning of project success when allowing to distributing the meaning of customer profitability to the project providers (project owner and contractors).

A project has a fix starting and finishing point and must meet specified objectives. Broadly these objectives are required to be achieved by three fundamental criteria i.e.: (i) the project must be completed on specific time (ii) the project must be completed within the budget cost and (iii) the project must be prescribed quality requirements. There is no practical guideline for measuring such criteria. Therefore in this paper an attempt is made to measure and study the quality cost towards indicating the evaluation of technical performance in construction projects. Quality cost can play a medal role in project management from a cost of project and consequently contributes to the success of the construction project.

2.2.2 (Petrofac International)

ANALYSIS OF PROJECT SUCCESS FACTORS IN CONSTRUCTION INDUSTRY

Murat Gunduza 1, Ahmad Mohammed Ali YAHYAB 2, May 2015 [2]

The study focused on Middle East region. In order to achieve this objective, 25 project success factors were identified by reviewing related literature. The factors were assessed for their impact and contribution to the actual performance of the project on three criteria: schedule, cost, and quality. Then a questionnaire was developed and sent to different experts in the construction industry. The collected data of 111 responses was then analyzed statistically by using different tools such as: importance index, Spearman’s rank correlation factor and T-test. As a result, company’s technical capacity and scope and work definition were ranked the most important factors. The results of this research may provide a great assistance to professionals and researchers in identifying the critical factors in the construction industry.

The ranking of the factors based on the results of the Frequency Adjusted Importance Index. Company's technical capacity came out to be the most important success factor. This might be an indication that the technical skills whether they belong to a client or contractor would lead to a successful project. Scope and work definition is another important factor that contributes in finishing the project successfully. Having a clear definition about what is to be done and what is required from each party involved in the project play an important role in effective project management. Moreover, would avoid variations and disputes that may lead to major delays or increase in project cost. Control systems came out to be the third important factor. It is clear that better controlled projects will lead to success. This shows how important it is to identify deviations, evaluate possible alternative course of actions and take appropriate corrective actions to get back on track and finish successfully. Effective site management is ranked in the fourth place. In construction project, the site people are the key players in the execution of any project. Having the right people on site will help in pushing the project to be completed as planned. Project manager capabilities and commitment comes as the fifth most important factor. The project manager is the leader of the project who controls all aspects of the project, his/her experience, characteristics, and his/her commitment to project can lead at the end to success completion of a project. However, the unforeseen conditions which (natural disasters, wars, economic crises, sudden changes of laws and regulations etc.), political conflicts and corruption and harsh climate conditions and environment were ranked as the least important factors. This may be due to familiarity with the project location, its local economy, legislation and geographical conditions.

As the next statistical analysis, Spearman's rank correlation factor analysis was carried out. The data was grouped in various categories to see if there is statistical difference between groups for UAE vs. Middle East (excluding UAE), clients vs. contractors, and respondents with more than 10 years vs. less than 10 years' experience. The high correlation suggests that these three different categories think closely but there are still minor deviations. These deviations were captured by the t-test statistics for these three groups. The result of t-test statistics is represented in. As a result of the T-test, there are five significant factors for comparison UAE vs. Middle East (excluding UAE). It can be easily seen that the mean values for UAE is highest for all these five factors. UAE pays more attention to scope definition and clarity of project mission, adequacy of plans and specifications, project briefings and procurement and tendering methods.

It observe with the importance index that company's technical capacities, scope and work definition, control system, effective site management and project manager's capabilities and commitment were the top 5 success factors ranked by the respondents. It is recommended that the management team pays utmost attention to these 5 factors for a better project success.

2.2.3 (Science Direct : International Journal of Project Management)

SOLVING MULTIPLE-CRITERIA R&D PROJECT SELECTION PROBLEMS WITH A DATA-DRIVEN EVIDENTIAL REASONING RULE.

Fang Liu a 1, Yu-wang Chen 2, Jian-bo Yang 3, Dong-ling Xu 4, October 2018[3]

In this paper, a likelihood based evidence acquisition approach is proposed to acquire evidence from experts' assessments as recorded in historical datasets. Then a data-driven evidential reasoning rule based model is introduced to R&D project selection process by combining multiple pieces of evidence with different weights and reliabilities. As a result, the total belief degrees and the overall performance can be generated for ranking and selecting projects. Finally, a case study on the R&D project selection for the National Natural Science Foundation of China is conducted to show the effectiveness of the proposed model.

The data-driven evidential reasoning rule based model for project evaluation and selection (1) utilizes experimental data to represent experts' assessments by using belief distributions over the set of final funding outcomes, and through this historical statistics it helps experts and applicants to understand the funding probability to a given assessment grade, (2) implies the mapping relationships between the evaluation grades and the final funding outcomes by using historical data, and (3) provides a way to make fair decisions by taking experts' reliabilities into account. In the data-driven evidential reasoning rule based model, experts play different roles in accordance with their reliabilities which are determined by their previous review track records, and the selection process is made interpretable and fairer. The newly proposed model reduces the time-consuming panel review work for both managers and experts, and significantly improves the efficiency and quality of project selection process. Although the model is demonstrated for project selection in the NSFC, it can be generalized to other funding agencies or industries.

In this paper, we proposed a data-driven inference model to analyse multiple criteria R&D project selection problems. The relationship between likelihoods and basic probabilities was explored to acquire evidence from the subjective assessments of experts as recorded in historical data. The ER rule based inference model was constructed to generate the combined belief degrees for distributed assessment and also the funding probabilities for ranking of alternatives. It utilized experimental data to represent experts' assessments by using belief distributions over the set of final funding outcomes, and through this historical statistics it helps experts and applicants to understand the funding probability of a given assessment grade. It can provide a way to make fair decisions by taking experts' reliabilities into account, since it encourages experts to keep objective and provide fair evaluation for improving their reliabilities and reputations. To

illustrate the contribution of this research in a practical sense, a R&D project evaluation and selection framework was incorporated with the data-driven inference model for the implementation to a real-world case study. The effectiveness of the proposed model was validated by comparing the outcomes of the proposed model with the outcomes of the existing method in the NSFC.

The proposed multi-criteria and multi-experts decision making model can be a useful tool for funding agencies to tackle R&D project evaluation and selection problems when experimental data are available. In addition, the reliabilities of experts in the proposed model can be seen as a criterion to estimate the qualification of an expert and can be used to assign appropriate experts for evaluating a project. It should be noted that the calculation of the mapping relationships between the evaluation grades and the final funding outcomes under study in this paper is based on the historical data of all the experts instead of calculating them for each expert, since appropriate sets of historical data are required to obtain the reasonable outcomes. Moreover, the application to other funding agencies or industries can be conducted to show the generalization of the proposed model.

2.2.4. (Science Direct: International Journal of Latest Research in Engineering and Technology ISSN: 2454-5031)

EVALUATION OF SECURITY RISK ON CONSTRUCTION PROJECT COST IN NIGERIA

Nnadi E.O.E 1, Okeke F.N 2, Alintah-Abel.U 3 April 2017 [4]

The concept of security would be best understood by reflecting on some of the definition given on security. Security refers to “the situation that exists as a result of the establishment of measures for the protection of persons, information and property against hostile persons, influences and actions”, Awojobi citing Akin (2008) [1]. It is the existence of conditions within which people in a society can go about their normal daily activities without any threats to their lives or properties. It embraces all measures designed to protect and safeguard the citizenry and the resources of individuals, groups, businesses and the nation against sabotage or violent occurrence (Ogunleye [14]). According to Igbuzor [10] it demands safety from chronic threats and protection from harmful disruption. Security can be defined as being in total safeguard from the livelihood from unprecedented daily harm and protect them from unconditional stress. Security however, can be described as stability and continuity of livelihood (stable and steady income), predictability of daily life (knowing what to expect), protection from crime (feeling safe), and freedom from psychological harm (safety or protection from emotional stress which results from the assurance or knowing that one is wanted, accepted, loved and protected in one’s community or neighbourhood and by people around. It focuses on emotional and psychological sense of belonging to a social group which can offer one protection). This description structured the concept of security into four dimensions. However,

these dimensions can be weaved together to give a composite definition of security as the protection against all forms of harm whether physical, economic or psychological. It is generally argued however that security is not the absence of threats or security issues, but the ability to rise to the challenges posed by these threats with expediency and expertise. On the other hand, insecurity can be opined by different people according to how they were affected. Insecurity include: want of safety; danger; hazard; uncertainty; risk; want of confidence; doubtful; inadequately guarded or protected; lacking stability; troubled; lack of protection; and unsafe, to mention a few. All of these have been used by different people to define the concept of insecurity. These different descriptors, however, run into a common reference to a state of vulnerability to harm and loss of life, property or livelihood. Be land [2] defined insecurity as “the state of fear or anxiety stemming from a concrete or alleged lack of protection.” It refers to lack or inadequate freedom from danger.

2.2.5 (International Quality Conference)

PROJECT MANAGEMENT: COST, TIME AND QUALITY

BojanStojcetovic 1, DraganLazarevic 2,May 2014 [5]

In this studies investigating the reasons why projects fail, for example Morris and Hough and Gallagher, provide lists of factors believed to contribute to the project management success or failure. At the same time some criteria against which projects can be measured are available, for example cost, time and quality often referred to as the Iron Triangle, Projects however continue to be described as failing, despite the management. Why should this be if both the factors and the criteria for success are believed to be known? One argument could be that project management seems keen to adopt new factors to achieve success, such as methodologies, tools, knowledge and skills, but continues to measure or judge project management using tried and failed criteria. If the criteria were the cause of reported failure, continuing to use those same criteria will simply repeat the failures of the past. Could it be the reason some project management is labelled as having failed results from the criteria used as a measure of success? The questions then become: what criteria are used and what other criteria could be used to measure success? This paper takes a look at existing criteria against which project management is measured and proposes a new way to consider success criteria, called the Square Route. The paper has four sections The Iron Triangle success criteria to be almost inextricably linked with those definitions. Next, an argument for considering other success criteria is put forward, separating these into some things which are done wrong and other things which have been missed or not done as well as they could have done. In the third section, other success criteria, proposed in the literature is reviewed. Finally The Iron Triangle and other success criteria are placed into one of four major categories, this is represented as The Square Route. First a

reminder about how project management is defined, the thing we are trying to measure. Oilsen³ almost 50 years ago suggested cost, time and quality as the success criteria bundled into the description. Wright¹⁴ reduces that list and taking the view of a customer, suggests only two parameters are of importance, time and budget. Many other writers Turner,¹⁵ Morris and Hough,¹⁶ Wateridge McCoy,¹⁹ Pinto and Slevin,²⁰ Saarinen²¹ and Ballantine²² all agree cost, time and quality should be used as success criteria, but not exclusively. Temporary criteria are available during the delivery stage to gauge whether the project is going to plan. These temporary criteria measurements can be considered to be measuring the progress to date, a type of measurement which is usually carried out as a method of control.

It is further suggested that the early attempts to describe project management which included only the Iron Triangle and the rhetoric which has followed over the last 50 years supporting those ideas may have resulted in a biased measurement of project management success. Creating an unrealistic view of the success rate, either better or worse! The focus of this paper is project management success criteria. To shift the focus of measurement for project management from the exclusive process driven criteria, The Iron Triangle to The Square Route. It is further suggested that shift could be significantly helped if a definition for project management was produced which did not include limited success criteria. Defining project management is beyond the scope of this paper, but is a task which has been started by the definition by Turner art and science of converting vision into reality.

3. Problem Statement:

In Construction industry we have many types of Infrastructure project they have different or same activity to competition, for this different activity required, different material, machinery, Labours, cost and time of completion. Organizations have various opportunities to take different project but depend upon the time of completion, and cash flow it affects the productivity so for specialization and Profitability of company we compare various infrastructure project with each other.

Organization also improves the performance by selecting same types of project if it is beneficial to organization or not this will find in this study also cash flow requirement for all this activity and allocation of cash flow requirement also define. Depends upon the comparison we try to improve the organization performance, profitability and management strategies to specialization in same activity or project.

4. Methodology:

Both primary and secondary data have been used in this study. Primary data were collect from the interviews from a mini-survey and from conversations with supervisors at deferent project. In addition, documents from the four projects were use as primary data in order to describe the characteristics of the

project and also data was collected mainly from resulting in the literature study and books. The literature study made before and during the interviews.

The purpose of the literature review to get an understanding of project, success criteria, time and cost for activity for completion and how they are related in order to form appropriate interview questions. The results from the interviews brought up new subjects that were necessary to be included in the project.

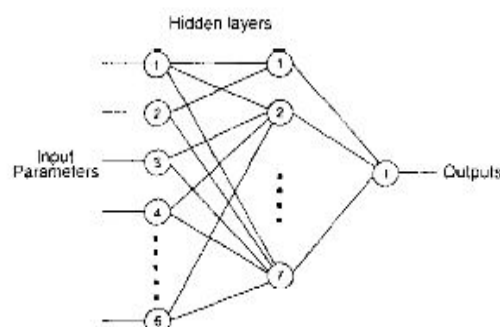
Roles	Case 1 Flexible Pavement (Bitumen Roads)	Case 2 Rigid Pavement (Concrete Road)	Case 3 Compound Wall (Building Work)	Case 4 Cable trench (RCC Drain Work)
Project Manager	1	1	1	1
Senior Engineer	1	1	1	1
Junior Engineer	1	1	2	2
Surveyor	1	1	2	1
Supervisor	2	2	3	2

Thus, the data from the interviews conducted are limited to the project management of the four projects.

Table 1: Number of managers and their roles

After the interview in Secondary data all project Activity ,required time are summarized then simulation network is created on Microsoft excel which gives the practical input related to Time , Cost and Activity of Project for all this four cases .In simulation network it depends upon the input some strategic calculation. Observation comparison is done on hidden layer and final output is given by simulation network this is more easily calculated in (figure No 2) which depends upon the output organization which can define the more profit on that project and also it show the capability of organization to handle the same type of the project and it also improve the productivity of project.

Figure 2: Simulation Network Diagram



5. Theoretical content:

In this study we have analyzed the various infra project with respect to Activity, time, cost and also cash flow for five years tenure which depends upon some observation with the various infrastructure projects who are having different activity, time and cash flow, also different profit and loss margins So, In this study we try to summarized all this observation by preparing on simulation network to find the best profitable project comparing to other infrastructure projects i.e. Road, Building, Drains etc.

To complete this project we required planning with respect to Activity, cost, time, quality of work and organization profit (Figure-1), it depends on some factors, Construction management Study which will try to increase the organization performance, it means study the technical performance, also calculation the schedule of working and within budgetary cost can improve the profitability of organization by repetition of project or by specialization of same type of project in the same area.

Artificial neural networks (ANN) is a branch of artificial intelligence (AI). Neural networks define the connection of simple processing units which is capable to processes the information using external realistic input. The processing units are called as neurons. Each neuron is connected to at least one neuron is called mesh. A network consist of the filters which passes the information from one layer to other layer in which the layers are consist of following, first input layer , second hidden layer, and third output layer The connection of neurons between layers are used as transmission of information between neurons. Neural networks learn by evaluating changes in input. Learning can be either supervised, unsupervised, or reinforcement. In supervised learning, each response is guided by specified parameters.

In this project simulation network is created and the projects are compare with each other by activity, time and cost by using the various practical inputs by using calculation and assumption practically by this various project are compere to each other in Hidden layer and final result are calculated depends upon final out put the more profitable projects are finded out which depended upon all the factors which we needed. By this the organization productivity can increase also the specialization of organization can define and the organization production process, management can finalized to minimize the losses and complication for completing all activity.

Project success criteria as the set of standards or by principles which project success can be summarized. Historically “Iron Triangle”, consist of quality, time and cost which has been used as project success criteria (Atkinson, 1999) and many authors are still referring to these criteria as a basic foundation for define project success (Han et al., 2012) In a similar vein, Stuckenbruck (1986) states that there are common success criteria that are generally applicable for the evaluation of any project regardless of project type. These are:

- Be profitable

- Be accomplishable
- Do not take unacceptable risk
- Produce useful end products with definable quality
- Be within the organization's capability
- Efficiently utilize available resources with available funds
- Be environment friendly
- Be socially acceptable
- Be politically acceptable

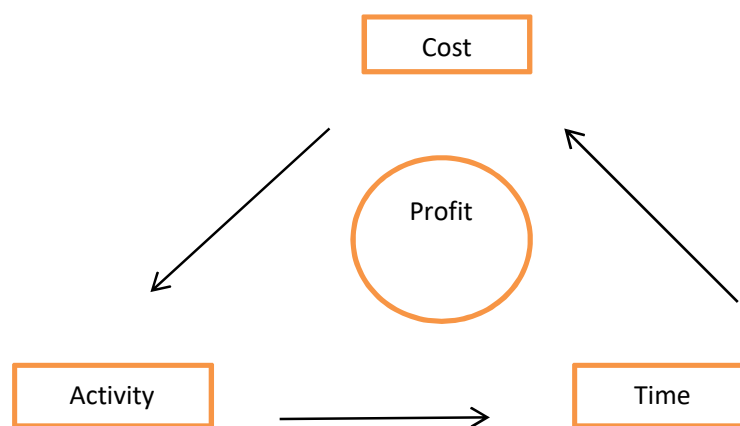


Figure 3 Iron Triangle

Every project has special criteria for success. In this project Time, cost, Activity with respect to profit are three specific criteria consider (Figure 3), though these could be dependent on the client, but are most usually characteristics of the specific industry. The Successful criteria are consists of four main component which are comfort, competence, commitment and communications. Successful factors ensuring that resources, efforts and leadership are well aligned for the implementation of the project. Competence requires having appropriated technology, experience and specialties available for the project. Commitment ensures that all parties concerned with the project and all levels in the management hierarchy of each participating organization are willing to manage, plan, design, construct and operate the facility harmoniously. Communication helps clarify and disseminate all necessary project information and status to all project stakeholders.

Any project can avoid the project failure by proper management, perfect calculation and proper working conditions also we can always avoid keeping ideal staff for better working using this elements before starting any project , The risk of project failure is minimize which helps to increase the confidence to ward project and get best results with more profitable.

6. Data Collection:

1. Primary Data:

In the First Primary Stage data is Collected of Four Project 1) Road Project – Bitumen Road 2) Road Project- Concrete Road 3) Building Project – Compound Wall 4) Concrete Project- RCC Drain, The Data is related to Activity, Cost and Time required for the work Completion. All the activity of project collects from tender set or Interview of above project. The activity cost required or basic cost calculated and collect from Mort&H, PWD Maharashtra DSR. The time or days required for completion of activity is taken by interview of various experts for this activity on site.

2. Secondary Data:

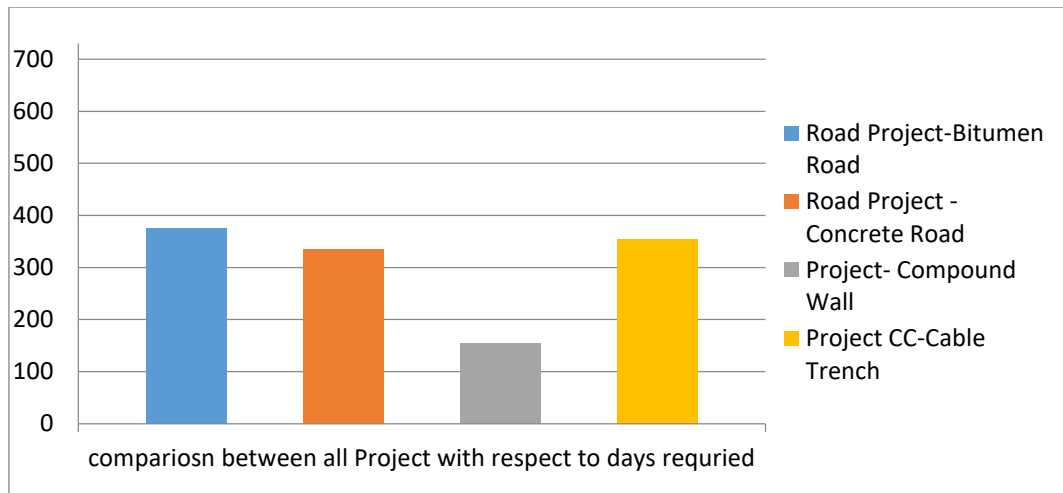
In the Secondary Data All the data which collected will inputted in excel sheet with various parameters in to the simulation network and compare all the project to each other with respect to Activity, time, cost required for completion and profit depends upon this comparison we can choice the best project for organization to increase the profit ratio for 5 year tenure.

7. Results:

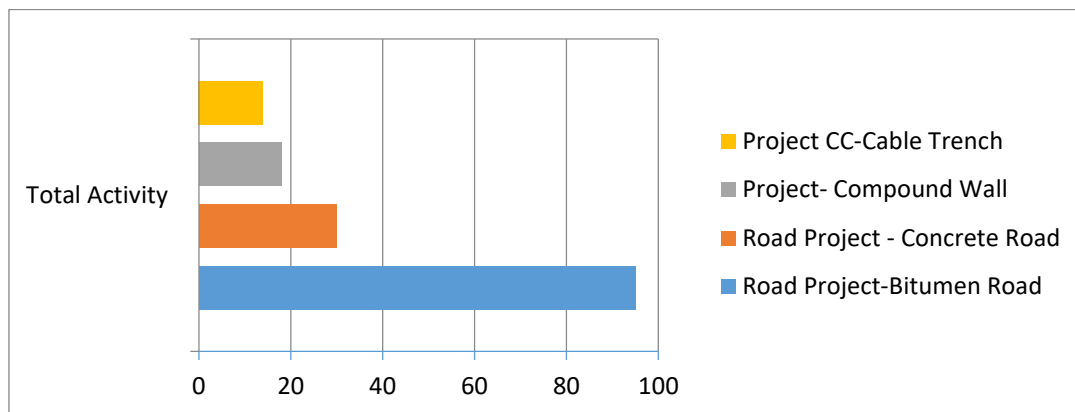
Compare these for project to each other and get some results

Table N0-2: Results Given By Artificial Neural Network

Sr. No	Project Name	Total Activity	Activity Duration	Total Project Cost (Rs)	Profit ratio	Profit in amount (Rs)
1	Road Project - Bitumen Road	95	375	291502835	10 %	29150284
2	Road Project- Concrete Road	30	334	269522105	10 %	26952210
3	Building Project- Compound Wall	18	155	53589536	10 %	5358954
4	Concrete Structure- RCC Drain	14	353	151951189	10 %	15195119



Graph 1.Comparison between all Projects with Respect to days Required for Completion



Graph 2.Comparison between all Projects with Respect to Activity forCompletion

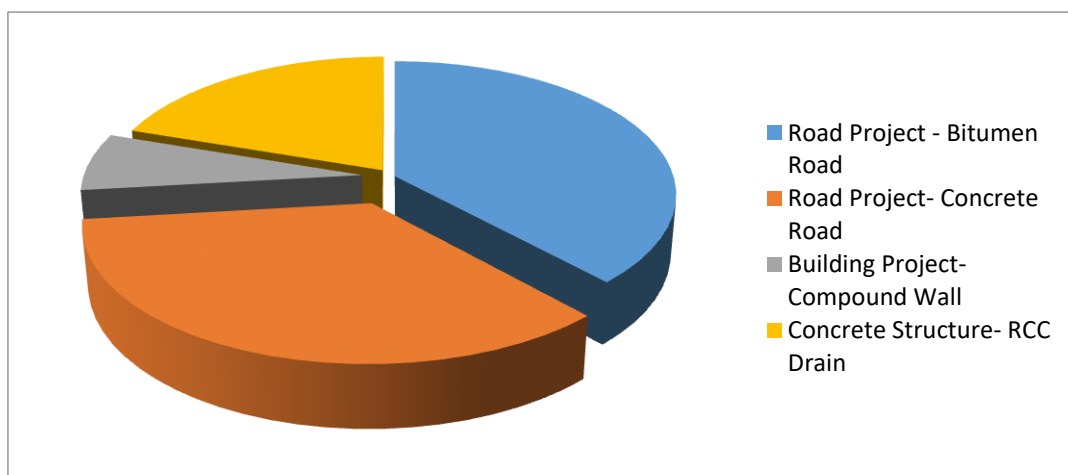


Figure 4. Comparison between all Projects with Respect to profit percentage

Sr. No	Project Name	Noof Project Complete in 5 year	Maximum Profit From 1single project (Rs)	Total Profit In 5 Year (Rs)
1	Road Project - Bitumen Road	5	29150283.52	141864713.1
2	Road Project- Concrete Road	5	26952210.45	147268814.6
3	Building Project- Compound Wall	12	5358953.592	63097356.8
4	Concrete Structure- RCC Drain	5	15195118.9	78558334.26

From simulation network Assuming 10% of profit we derive that,

1. Single **Road Project “Bitumen Road”** gives maximum profit **Rs.2,91,50,283.52**
2. But after comparing to the time required for completion which is related to total number of project complete in five years **Road Project “Concrete Project”** get maximum profit of **Rs.14,72,68,814.6** with respect to other infra projects.

8. Conclusion

This project has presented an artificial neural network model for Economic, Quality and timely completion for infra project and concludes that:-

1. The construction industries struggled a lot with inefficient processes which is must now a days to be desired. In order to meet the challenge for building a good construction industry we must become more efficient by using fewer resources like simulation Networks, actual Rates calculation, Small changes in the operational cost, completing the work in time, all the activities running smoothly without any issues , also increase the efficiency which will defiantly make changes in profit.
2. By using simulation network, we can increase the specialization of organization and increase the productivity of organization. Which directly effect on actual profit and loss sheet of organization.
3. After working on this Project cases it can be concluded that due lack of knowledge about simulation network techniques, many people in the construction industry are facing problems or not aware about the benefits of it, which is the main de-merit of implementing this techniques and gaining profit from it.

4. Increasing the profit of organization using simulation network and Initial proper knowledge and information should be provided among the management team and other people in organization to gain maximum profit in minimum productive time.

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