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PLANNING OF FACILITIES AND ASSET MANAGEMENT FOR AN INTEGRATED TOWNSHIP

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ABSTRACT

Indian Construction projects suffer from cost and time overruns that are typically a symptom of wastage and productivity problems which directly affect overall industry profitability and economy. Today's economically developed nations had also faced these problems as a result, researches and methodologies have been developed to reduce the risk of overruns and improve project outcomes. Deregulation and an increasing competition in construction markets urge energy suppliers to optimize the utilization of the facilities, focusing on technical and cost-effective aspects. As a respond to these requirements utilities introduce systems formerly used by investment managers or insurance companies. It describes the usage of these methods, particularly with concern to asset management and risk management within electrical grids. The essential information wanted to set up an appropriate asset management system and differences between asset management systems in planning and implementation stages are discussed. The objective of the life management process is the optimal consumption of the remaining life time regarding a given reliability of service and a constant distribution of costs for reinvestment and maintenance confirming a suitable return

Key words: Asset management, Facilities, Project outcomes, Time and cost overrun.

INTRODUCTION

Integrated towns are clusters of housing and commercial properties with associated infrastructure such as roads, hospitals, convenience shopping, villas, drainage and sewage facilities. Townships typically contains of residential, commercial, entertaining and other elements required to create a conducive environment for living. Facility management is subject to incessant innovation and development, under pressure to reduce costs and to add assessment to the core business of the public or private sector consumer organization. Facility managers have to operate at two levels-strategic-tactical and operational. In the earlier case, clients, customers and end-users need to be informed about the potential impact

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of their results on the provision of space, services, cost and business risk. Infrastructure asset management is the integrated, multidisciplinary set of approaches in sustaining public infrastructure assets such as water treatment facilities, roads, utility grids, bridges, and railways.

EXPERIMENTAL

Literature review

Kayis MA Abuzayan (2014): Asset-management technique capable to take account of the full range of factors in less constant environments require to link contributory variables including: dynamic user-needs analysis, life-cycle investigation, national plan specifications, building codes, prefabrication opportunities & project management tools towards retro-fitting. A asset-management model needs to address key activities, communicate corresponding interconnectivities, and appreciate best practice.

Suwaibatul Islamiah Abdullah Sani (2012): The assets and facilities were established especially buildings, constructions and infrastructures to fulfil the necessity of society and organization. The assets particularly public buildings and infrastructures are not preserved properly because of the absence of maintenance culture. Thus, developing the maintenance culture is important to increase the awareness about maintenance action on public facilities and assets.

Aghahowa Enoma: Facilities management is a new discipline, an stimulating profession that embraces many essential areas of the built environment. This study looks at the role of facilities administration in the procurement of a facility. The methodology for this study is through consultations of professionals in construction and facility providers as well as facilities managers and designers.

Methodology

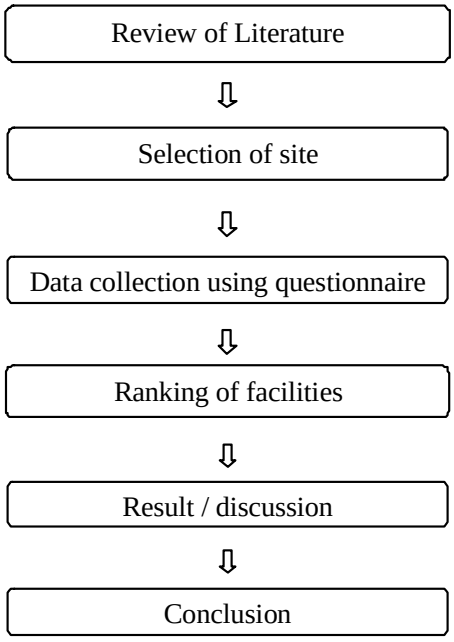
Objective

To develop a strategic asset management framework. To maintain functionality and comfort of the space. It creates the responsibility to manage and operate infrastructure assets through careful planning. To effectively manage the available infrastructure assets for the benefit of the society and provide the most required facilities.

Methodology

This part describes about the type of research methodology for literature study from

journals, selection layout and planning of site, collecting suggestions from both company's and client's point of view and give a result through rank-weight age analysis.



Analysis techniques

The technique used in this project is rank-weightage analysis. Each question is given 4 options and each option is allocated a mark. The same set of questionnaire is circulated to the developers and customers and their views are taken in account. The number of votes for each option is multiplied to its allocated mark and the total is arrived and average is acquired.

Site details

The project is carried out in padur village in Kancheepuram. The total duration of the project is two and a half years. DLF has quoted the contract work for 75% of the project. My project is done under the supervision of Mr. R. Ramesh, (Project Manager) and Mr. L. Satyanarayanan (Site Supervisor). The overall cost of the project is 200 crores.

Data collection

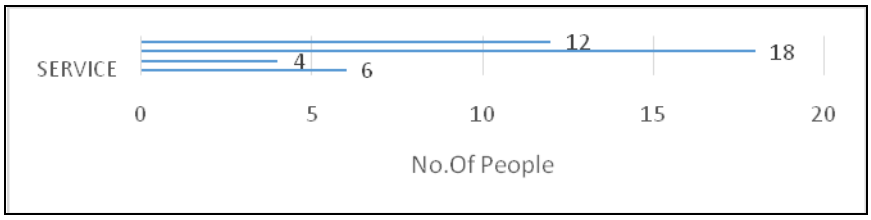
Data collection is the process of gathering and measuring information on targeted variables in an well-known systematic fashion, which then enables one to answer relevant

questions and evaluate outcomes. The main goal for all data recording processes is to capture quality evidence that then translates to rich data examination and allows the building of a convincing and credible answer to questions that have been posed. Likewise data recording has been done in the form of questionnaire survey and is discussed through rank-weightage analysis method.

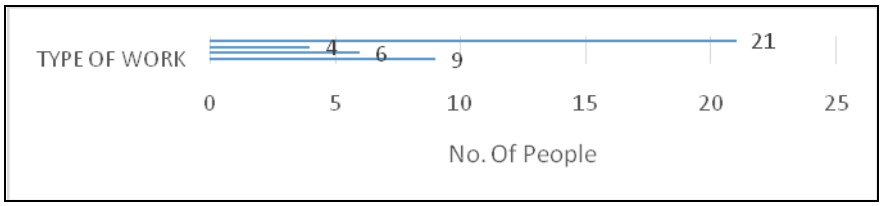
Questionnaire survey

A questionnaire is a enquiry instrument consisting of a series of questions and other prompts for the purpose of meeting information from respondents. Questionnaires have benefits over some other types of surveys in that they are cheap, do not require as much determination from the questioner as spoken or telephone surveys. Following are the questions asked in 40 companies and their view about the 4 important factors, time, cost, quality and maintanance.

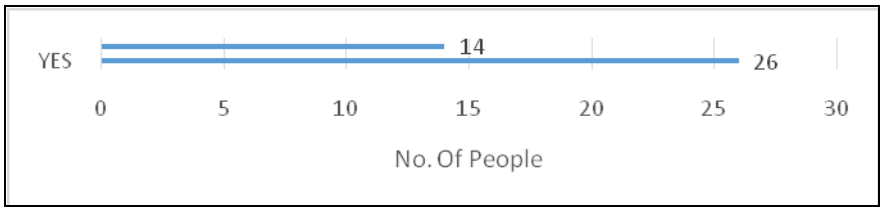
1. Which class do you select to prioritize in your project ?



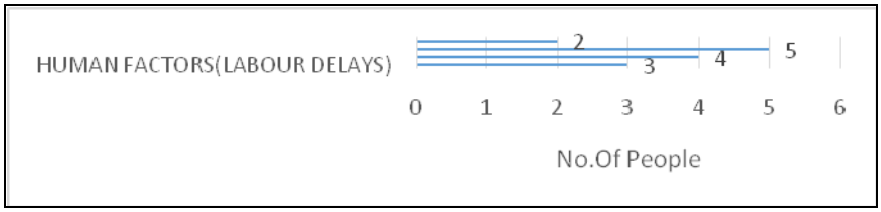
2. On which basis are you finalizing the cost of your furnished flats.?



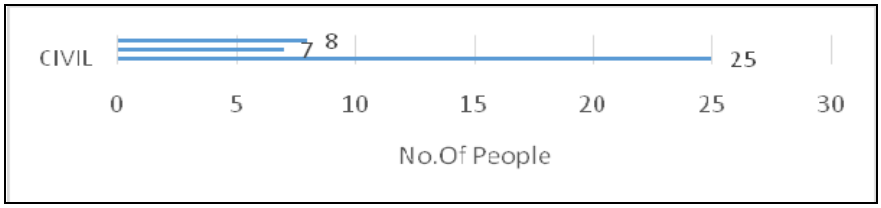
3. Have you completed your project in the estimated time ?



If No, what is the purpose behind the delays ?



4. Which maintanance will you prefer for the betterment of your project in a long time basis ?



Rank-weightage analysis method

Model calculation

Q. Whats your view of having a lift in each block.?

a. Mandatory(4)[14] , b. Not mandatory(3)[10] , c. Useful(2)[15], d. Not useful(1)[1]

The values in round brackets are the marks given for both option and the numbers in square brackets are the number of people suggesting the option.(14x4+3x10+15x2+1x1) ÷ 40 = 2.92

RESULTS AND DISCUSSION

Like wise each facility is analysed by rank weightage method and the ranking is given which facility is desired the most by the developers and the customers and which facility would increase the asset cost. The internal amenities and external facilitieswhich play a major role in asset management.

After the survey from developers and customers through a questionnaire , the results are arrived and based on the weightage, facilities are ranked and priority is given for the higher ranked services. On unity with the ranking of internal facilities, they are prioritised in the following order.

Ranking of internal facilities

Car parking, Lift, Power backup, Fire service, Security cameras, Wifi hot spot, Club house, Sports centre,Food court &Conference hall.

Ranking of external facilities

Shopping market, Hitech Hospitals, School/Colleges, IT Parks, Mall, Recreation centres.

CONCLUSION

In this project, from the above chapters discussed, we selected the site totally 113.33 acres to create a township with providing all amenities and good infrastructure arrangement. The preparation of a township for the urban knowledge industry enlargement plan at high lands. The approach towards the projects was to ensure a high-end residential and knowledge industry with emphasis on uphold the natural elements within the site. Management of infrastructure is a varying result of growing complexity trigged by technical/ software-input expectations economic-imperatives, stabilization after disaster, socio-political difficulty and conflict and resources challenges in conditions of skill shortage and greater asset/facility need. It includes the shelter unit in terms of floor area, habitable rooms & type of construction, but also its plot area, public utilities, community services & its access to the place of work. This type of housing has a higher population density and intensity of land use as compared to that of a plotted housing estate. The development of group housing has become increasingly important in urban areas in the country, especially in metropolitan cities due non-availability of land, high land costs, high degree of facilities within a complex etc.

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