

REVIEW OF SOFTWARES USED IN CONSTRUCTION INDUSTRY

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ABSTRACT:

The use of softwares and information technology in every field has been growing since last two decades. Earlier softwares were used to be effective in designing field only, later on integration of different modules of business made industries to focus on other relevant applications of softwares. This led to innovation of new softwares for underrated domains of industry such as construction management etc. The paper reviews various softwares used in the construction industry across globe. Special focus is on project planning of various construction types.

KEYWORD: Softwares, construction industry, project management.

INTRODUCTION:

Project Manager's now a day's are required to facilitate the integration of work of all project team. And the organizations are geographically separated beyond national boundaries or in context of large countries like India, within the national boundaries. In doing so, there is adverse need to make better use of information and knowledge generated in all stages of development.

Hence communication plays an important role in integrating such different agencies. Information technology is now is a very strong tool to achieve such kind of effective integration.

Better communication can be achieved by using computer tools for effective data processing and information management, through ICT. As the maximum number of the construction organizations is small and medium enterprises, the communication management research is required to address management and communication processes adopted by these organizations. These issues can be addressed by valued research, but also require clear understanding of the management and communication processes followed by organizations of each distinct regional area or country.

LITERATURE REVIEW:

M.F. MOHD MUKELAS , E.M. AHMAD ZAWAWI , Z. ALIAS , K. MOHD. SUKUR

In their paper "The effect of construction cost estimating software on job performance: An

improvement plan" presented a comprehensive statistical research on the effect of construction cost estimating software's features on estimating job performance. They identified cost estimating software features, analyzed the significant relation of cost estimating software's features towards job performance, and explored the problem faced during the implementation. The study revealed four features of cost estimating software that significantly impacted towards changes in cost estimating job performance.

A.P.CHASSIAKO

In his paper "Use of ICT technologies in construction" Provided an overview of recent researches and industrial developments on Information and Communication Technology used for improving the efficiency of the construction process. They listed out ICT applications in construction viz.

- ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS (EDMS),
- WEB-BASED PROJECT MANAGEMENT SYSTEMS (WPMS),
- APPLICATION SERVICE PROVIDERS (ASP),
- E-WORK AND E-BUSINESS APPLICATIONS,
- VIRTUAL REALITY (VR) APPLICATIONS,
- MOBILE COMPUTING, AND
- WIRELESS COMMUNICATION

They stressed that ICT, when appropriately used, can significantly contribute effectively to the timely, economical, and successful deployment of construction projects. Main problems in its use are the resistance of the construction industry to adopt new technologies in conjunction with a difficulty in identifying clear benefits of ICT use, the limited budget, the need for computer-skilled staff, issues of ICT standardization, and technological and financial constraints.

P M WALE, N D. JAIN, N R GODHANI , S R BENIWAL , A MIR

In the paper "Planning and Scheduling of Project using Microsoft Project Case Study of a building in India" has differentiated between the Microsoft Project (MSP) and the traditional planning techniques which speeds up construction and also make the project very cost

effective with proper planning with the help of the case study on the single wing of project executed in Pune, Maharashtra, India.

They adopted different methodologies and for finding out various aspects that proves efficient planning & execution of the project, also to find out remedial measures, various research papers were referred. Methodology adopted includes defining of problem statement, insinuating the objectives from the data collected in two part viz. Primary data and secondary, analyzing the data and finally coming to the conclusion.

**MLADEN VUKOMANOVI, MLADEN RADUJKOVI ,
ZLATA DOLA EK ALDUK**

In their paper "The use of Project management software In construction Industry Of Southeast Europe" Revealed that limited attention has been paid to the Project Management Software (PMS), particularly in the transitional countries. They conveyed to a deeper understanding of the needs of the transitional economies by providing new insight into deficiencies of implementing the Western PMS in the construction industry of Southeast Europe. Thus, while the construction industries of the developed economies use PMS for a wider range of project management processes, the SEE construction industry still practices management mainly through financial procedures and material planning. Therefore, the PMS originating from developed countries, in the present form, is of little use in transitional economies.

BO-CHRISTER BJÖRK

In his paper "Information technology in construction: domain definition and research issues" discussed in brief on the scope of research on the application of information technology in construction. He represented a model of the information and material activities which together constitute the construction process are presented, using the IDEF0 activity modeling methodology.

Also he compared scope of ITC with the scopes of research in related areas such as design methodology, construction management and facilities management. Health care is proposed as an interesting alternative, as an IT application domain to compare with. Some of the key areas of ITC research in recent years; expert systems, company IT strategies, and product modeling are shortly discussed. Also a short discussion of the problems of applying standard scientific methodology in ITC research, in particular in product model research was made in this paper.

T. SUBRAMANI ET AL

In their paper "Analysis of Cost Controlling in Construction Industries by Earned Value Method Using Primavera" discussed the use of industrial engineering technique named Earned value management EVM which has been adapted for application in project management.

The paper discussed the main parameters involved in the calculation of Earned Value Analysis (EVA) in the cost management of civil construction projects. Also they concluded that the software could be used in a wide range of projects for Earned Value Analysis calculation

CONCLUDING REMARKS:

The review of various research papers reveals that using Information communication technologies and various softwares in construction industry makes effective project management, effective implementation; effective planning which in turn gives benefits to the organisation as whole.

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