

How Should Expertise Classification be Evaluated Within Construction Planning?

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Abstract

During my professional career which started on 1972, I have witnessed that "Planning Technical" personnel is judged by nothing else but his/her Primavera/MS Project skills. Most of the terms and functions in the scope of "Construction Management" should be reconsidered in line with the technology of the new millennium. It should be identified as a profession/expertise and it should be ranked or categorized. The term "Planning" is elementary component of construction management. Expertise level should be identified on CV documentation of the technical personnel who gained experience and marked a career path in accordance with this content.

In order to create a brain storming within this context, my personal opinions are presented, as follows.

Keywords

Construction planning, Construction management, CPM Software, Primavera, MS Project

1. Introduction

The word "Planning" always causes a similar perception to almost every business segment. This term has a stronger and much more important content for the construction business which is counted as one of the most complex and the one with the most extensive coverage for production business segment. Occasionally construction projects do not resemble each other. The geographical conditions vary almost on each project, the staff and teams are different and the client differs each time.

Based on the reasons mentioned above, the term "Planning" should be handled with much more extensive coverage in terms of construction business.

On the other hand we should comprehend and interpret "Planning" terms and methodologies as pre 2000 and post 2000 periods, within construction management.

Just like the way it is on "Construction Management", there are major differences between the past and the present of the "Planning" feature in terms of execution. Ease of data processing, analyzing and reporting thanks to information technologies of the new millennium along with the easy access to data and better connectivity options via internet technologies, provided smooth feasibility and execution of know-how regarding to this area.

During the pre 2000 period; the term Planning was limited to (Critical Path Method) CPM software systems such as Primavera and MS Project. In accordance with this fact, the evaluation of planning technical personnel was based on their competency on these software systems.

In the new millennium; ERP system tools which were enhanced by the facilitation of information and internet technologies delivered firms much more collective working environment along with deeper content. Tools providing momentum and ease of command over data have triggered an inevitable formation of institutional identity. Collective achievements gained importance over personal skills.

In the new millennium, planning expertise can not be considered as a personal skill within the body of the enterprise. It should be taken into account as an outcome of a collective work of an organization.

From now on, we can not evaluate planning term and planning technical personnel working within this content, by their personal skills or competency for CPM software. We should evaluate them by their ability for command over data as a requirement of their technical responsibilities within the institutional and operational structure of the firm.

2. Where Does Construction Business Take Place in This Development?

It is obvious that Human Resources Management Firms mostly prefer underlining “Planning, Budget Management, Cash Flow and Cost Control” terms on their advertisements while seeking for Planning Professionals. And generally it is mentioned that a user of CPM software such as Primavera or MS Project is required.

We can easily comprehend that functions of CPM software systems are regarded as more extensive than the basics of these systems and also we can realize that much more functional content is expected from the Planning Supervisor personnel by checking these HR advertisements.

Besides, functional terms like “Planning, Budget Management, Cash Flow and Cost Control” cannot be resolved solely over CPM software systems. This content is not covered in a convenient way suitable for current technological environment during the training progress of technical personnel of construction business. Engineers and architects come across to these terms when their work career kicks off.

If we take a look at the overview of the construction companies, we notice that personal abilities remain forefront in management issues and there is no evidence of transition to data sharing network, ERP systems. A vast majority of construction firms, it is almost impossible to expect a common sense of planning culture despite huge expectations from “Planning”. Mostly single technical personnel or maybe 2 planning engineers are assigned to the functions of planning and expectations for resolutions are handed to these personnel’s skills and experiences.

Considering all of the mentioned above, we recognize that there has been a chaos for the concepts of these subjects. Both from the perspective of construction firms and the planning personnel, it is evident that the content which is imposed to these terms has to be defined in a much more detailed way.

The major misbelief of the main popularity within construction firms and technical personnel is reckoning CPM software such as “Primavera” or “MS Project” as the perfect solution for these subjects and assuming that “Planning, Budget Management, Cash Flow and Cost Control” issues would be resolved through “CPM” software and its commander.

If we handle the content of “Planning, Budget Management, Cash Flow and Cost Control” subject comprehensively from the point of view of a construction firm, based on conditions of our time, it is hard to execute the mentioned services properly unless providing data sharing.

First and foremost, these matters require the presence of an ERP system that will provide interoffice data sharing.

Supported by a multi-modular structure, ERP is an industrial term which defines enterprise management planning, assist to manage all units and operations of a company.

In the absence of the ERP systems, taking place on various phases of construction management, subjects like “Tendering, Planning, Execution, Budget Management, Cash Flow, Cost Control and Procurement Management” cannot be resolved in a healthy way.

Additionally, during the (CITC-V) Convention; I depicted the planning subject and illustrated how it is handled through ERP system in my paper entitled “A Solution for Creating the Algorithm of Transferring Cost Estimation Data to CPM Software via Construction Management ERP System”. As it is obviously seen in this example, planning requires a system rather than personal skills.

Most of the terms and functions in the scope of “Construction Management” should be reconsidered in line with the technology of the new millennium. It should be identified as a profession/expertise and it should be ranked or categorized. The term “Planning” is elementary component of construction management. Expertise level should be identified on CV documentation of the technical personnel who gained experience and marked a career path in accordance with this content.

In order to create a brain storm within this context, I preferred to bring my personal opinions forward as follows. I believe this review shall be in benefit of technical personnel while determining their goals and objectives on their planning career.

3. How Should Expertise Classification be Evaluated Within Construction Planning?

If we were to classify the planning expertise level of technical personnel within a ranking system like 7 degrees of Judo belts (i.e. white, yellow, orange, green, blue, brown and black) which is based on experience and expertise:

1. Degree Planner (Planning Apprentice)

This kind of planner is the one who comprehended fundamentals of CPM methodology following an education in construction planning at the university or a Primavera/Microsoft Project Training Course.

A planner of this level can be assigned as “Planning Data Input Personnel”.

2. Degree Planner (Planning Assistant)

This one is kind of a Technical Personnel who established a Work Schedule, mostly not exceeding 1000 activities, thanks to directions from the Project Manager on a few construction projects after completing prior education.

A planner of this level can be assigned as Planning Engineer Assistant.

3. Degree Planner (Planning Engineer)

a- This type of planner is capable of lecturing people during seminars or at universities/private education centers within the content of construction planning.

b- Or Technical Personnel who has worked on international projects and executed more complex planning works under the control and demand of international consultants.

c- Technical personnel experienced in construction firms which prefer using partial solutions or Excel-Primavera for BoQ-Tender documentation data transfer and somehow managed to execute work in line with the schedule.

There are only a few companies in Turkey who actually achieved this. A planner of this level can execute “Planning Engineer” duties.

4. Degree Planner

To reach this level of planner, it is required to work for a company equipped with the culture of planning besides reaching Planning Engineer degree. There should be the existence of system to provide data sharing between modules such as defined below:

These are; Quantity Measurement – Unit Price – Analysis – Tender – Production Monitoring – Budget – Primavera or MS Project. It is not quite possible to obtain reports properly for terms like “Planning, Budget Management, Cash Flow” when there is no “Data Management” between the modules mentioned above. If you pay attention “Cost Control” term is not attached to these 3 subjects.

A planner of this level can execute Technical Office Supervisor duties successfully.

5. Degree Planner

On a level of planning like this where there is a chance to manage and monitor the term “Cost Control” it is absolutely needed to work through ERP systems. It is not possible to talk about the 4 terms as known as “Planning, Budget Management, Cash Flow and Cost Control” in the absence of an ERP system which provides sharing of data regarding to quantities, cost and time information.

At this point we can list the modules that require data sharing and control as follows:

Quantity Measurement – Unit Price – Analysis – Tender and BoQ – Production Monitoring – Budget – Primavera or MS Project – Cost Accountancy – Timesheets – Production – Stockings – Fixtures – Procurement Orders.

The commandment of Planning Expert on a level like this began covering not only the technical content but also the financial and cost control accountancy subjects. A planner of this degree can easily work as a Project Manager.

6. Degree Planner (Planning and Cost Data Management Consultant)

On this level we can mention about a firm, a professional development not solely a single person anymore. A Planning Expert of this degree should take place in a formation with his/her own team to provide the professional consultancy service for investors and/or construction firms.

7. Degree Planner

We can speak of a “Planning Veteran” instead of a professional development.

4. Conclusion

As a result, during the new millennium, administrative skills depend on efficient access and use of data rather than personal skills. The criteria determining the success of professionals in management does not consist of talent and experience anymore. Competency for data access and familiarity of technology prevail over personal talent. Achievement of a professional is both related to the structure of the organization and the presence of ERP which is considered as operating system of the firm. I believe this approach shall assist technical members of construction business along their career pathway.