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Collaboration – Excellence in Execution

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Abstract: As projects are getting more challenging & demanding day by day in terms of cost, schedule and quality, all round collaboration is the need of the hour today to execute a project efficiently. In this unpredictable & volatile industry, consolidation of diverse talent within the whole trade map is essential. The potential of these diversities will give way to innovative methods to execute and help us to cope up with challenges. Looking at the complexities of various projects in terms of process, technology, geographical or political environment, schedule, cost, competitive market etc., it becomes virtually impossible for a single contractor to execute the project in line with the client's aspiration. Collaboration enables individual parties to work together to achieve a defined and common business purpose. This can be achieved by a various combination of project stakeholders: clients, EPC contractors, sub-contractors or vendors, as long as their business purpose is common and well defined. Market demand and competitiveness, force all parties associated with the project (or proposal) to join hands, despite some being competitors in their own field. A healthy collaboration with highest level of ethical standard between concerned parties paves the path to the success of the project.

Keywords: collaboration, EPC project execution, client, contractor, sub contractor, vendor

1. INTRODUCTION

This paper focuses on multiple equations of collaboration relevant to execute the project in cost effective manner within stipulated time. This equation is nothing but different types of partnership between stakeholders like Client-EPC Contractor, EPC Joint Venture partners, EPC Contractor-Vendor and Package Vendor- Sub Vendor. Promoting collaboration is the key to success to improve the quality and productivity. Collaboration is thus a ‘Win-Win’ formula. At the same time, as professionals we must demonstrate highest level of ethical standards which the strongest foundations for collaboration. When we collaborate among our competitors or with clients, being ethical and trustworthy is of paramount importance. As an ethical company, all parties must be familiar with handling of confidential data, usage of software/tools, security of project information, intellectual property etc.

2. WHAT IS COLLABORATION

Collaboration enables individual parties to work together to achieve a defined and common business purpose. Therefore, it can be with any combination among clients, contractors, sub-contractors, vendors as long as business purpose is common and well defined. Complex situations in terms of technology, execution means, commercials, geographical or political environment yield different types and mechanisms of collaboration.

3. DIFFERENT TYPES OF COLLABORATION

3.1 CLIENT- EPC CONTRACTOR COLLABORATION

Many service industries today strategically shift themselves towards solution delivery entity for the Clients. Service is something which is relatively silo-centric execution of a project, however solution is something which addresses the challenge through holistic way and prescribes something which is more comprehensive and makes broader sense. When a contractor moves towards solution delivery company for their clients, involvement in communication and co-ordination become more close and compact which essentially results in Collaboration. When a client approaches a contractor to build a plant or to revamp the existing plant, contractor goes into further detail by asking larger goal, market drivers, strategic need of the client. By knowing the ultimate purpose, it will be more convenient for the contractor to provide the solution which is actually desired by Client. Today, there are many international clients in Energy & Chemical industry who are adopting collaborative models among various international contractors. Clients are becoming more and more participative, involved, physically close with the contractors right from beginning of a project (including conceptual phase) to ensure proper collaboration exists to achieve the ultimate business objective. Clients are not only the mere approver, reviewer of contractor's deliverables – they are becoming more and more partner of the contractors. Project decisions are through more consensus-building approach among client and contractor, rather than binary button of accept/reject resulting in contractual fights later. If a single contractor is not capable of providing the complete solution, client-contractor collaboration may result in another set of

collaboration like Contractor-Contractor collaboration in view of bringing all expertise needed on one table.

3.2 EPC JOINT VENTURE PARTNERS COLLABORATION

Generally contractors are competitors to each other. Therefore this is an interesting combination. Some projects are very large in size, diverse in technology or process, unique in terms of weather or geography, having very tight schedule and demand lowest possible cost with highest quality. One single contractor may not be good enough to meet all of the above demands under all such variances. Hence, it makes sense for multiple contractors to join hands to overcome the challenge, where all of them share the success both in terms of commercial and reputation.

In such kind of collaboration, each contractor is involved based on their expertise, competencies and resource availability so that they can leverage their strength in optimum way to enable the client competitive enough in global market through successful execution. Let me give some examples what is happening around. In one of recent Middle East refinery project executed through Joint Venture model among three global contractors by leveraging expertise and competency of their own on different aspects of the project. Another giant project in Kazakhstan being executed through again another Joint Venture model between two world class contractors. In all these cases, projects are being executed by leveraging expertise and competency of multiple global contractors for different aspects of the project (like engineering, procurement, construction etc.).

3.3 CONTRACTOR – VENDOR COLLABORATION

Collaboration between contractor and vendors is also a critical success factor for the project. It is not something new today, however it arrives in a new dimension and possibly it is essential to strengthen further. It was not that common to get vendors involved in conceptual phase of the project, as vendors are commonly perceived as a serious entity in ordering stage only. Those days are over and in fact getting over very fast. Vendors also want to be part of the team right from conceptual phase, which gives following benefits:

Vendor can forecast their business in days ahead better

- a) Vendor can educate / advise the contractor the optimum solution of the project in terms of technology, design, material, procurement / sub-contracting strategy etc.
- b) Contractor can present feasible solutions to the client based on confident buy-in from vendors
- c) Contractors can present better certainty / accuracy of cost estimate to the Client which is the Key for Final Investment Decisions in most projects

- d) If project gets financial approval, execution becomes smooth due to advance understanding between contractor and vendor
- e) Main Instrumentation Contractor or Main Automation Contractors are the outcome of that kind of prior dating between contractor and vendor.

Let me again pick an example where an outstanding collaboration to enhance Contractor-Vendor Interface has paid a significant dividend by gaining construction schedule for one of the Fluor’s recent projects. Approximately sixty responsible engineers for various packages were proactively engaged in expediting the orders – through physical presence of contractor’s engineers in vendor premise which results in quick fix of technical issues, faster vendor document review and approval – as these are instrumental for timely quality input of Construction. Yes, it required more travel and more engineering co-ordination work hours – however improvement in construction schedule with certainty of vendor data gives much better return on investment – project total installed cost (TIC) drops down. Unless contractor and vendor are in collaborative mindset, this implementation of this initiative would not have been successful.

3.4 VENDOR – VENDOR COLLABORATION

It is similar type of collaboration as Contractor-Contractor. Depending on the quantity of items or in view of single point responsibility, contractors many times reduce the number of purchase orders which results in ease of procurement handling and in turn efficient project management. This exercise cannot be unilateral; there should be enough business attraction for the vendors to fall in that line. Sometimes, big vendors may not be interested to quote if order value is very less – in that circumstances, clubbing few packages and giving the room to the vendor to choose from list of sub-vendors for other packages which are not their own product with a single point responsibility makes business sense. In that case, collaboration between vendors for the same purchase order is the key to success. There are projects where a particular vendor has the single point responsibility of one purchase order clubbing electronic transmitters, temperature gauges, thermowells, level gauges, level switches, orifice plates. Some of the items like orifice plates, temperature instruments and few specific Emergency Shutdown (ESD) transmitters are the bought-out item for that particular vendor from other vendors who can indigenously supply those items. Few of them are competitors in the same field even. However, understanding comprehensive picture of procurement which is more commercially and technically sensible has brought them under same umbrella.

4. ROLE OF ETHICS

Ethics is one of the strongest foundations for collaboration. When we collaborate among our competitors or with clients

who signs our pay cheques, or dealing with vendors or sub-contractors being ethical and trustworthy are of paramount importance. Collaboration does not mean to intrude others' business confidentiality or proprietary. There should be proper understanding of information sharing, usage of softwares/tools and exposure of commercials etc. As an ethical company, all parties must adhere that. Otherwise, foul play begins and projects will be in jeopardy and business will be undoubtedly polluted. Therefore, not only from organization's perspective but also from individual professional's angle maintaining highest level of ethical standard and integrity must not be compromised in any manner; it may look sometimes challenging – however, actual strength of professionals must uphold this greatest business value.

5. EXCELLENCE IN EXECUTION

Collaboration is one of the core skills which becomes increasingly essential and gaining its importance in the domain of excellence of execution in business landscape today and tomorrow. Business becomes more unpredictable; volatile which requires certainty of cost and schedule with highest possible return of investment. Unleashing the true potential of diversities will give extra mileage to transform the business in more innovative way to execute and help us to cope up with day-to-day challenges. Diversities cannot be constructively tapped unless we have collaborative approach. Despite competitors are in fierce competition, maturity of the competitive world triggers everybody how best they can collaborate to win business (be it limited manner even). Collaboration is 'Win-Win' formula today – irrespective of the equation between client, contractor and vendors.

6. CONCLUSIONS

Project Execution gets increasingly complex and challenging, particularly when world economy having so many interdependencies on various global dimensions. Clients are thinking not once or twice, rather multiple times before giving Board's approval on Final Investment Decision to truly convince them targeted return of investment. This kind of cautious and calculated approach pushes the whole EPC industry in an unprecedented challenge where Collaboration can sail through all stakeholders of the project during this rough weather. In fact, collaboration among all parties involved in project expands the definition of 'Project Team' which sometimes called 'Integrated Project Team' also. Collaboration thus is a great attribute to embrace among intelligent project entities to see smile on everybody's face.

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REFERENCES

- [1] Fluor executed projects in domestic and international sites
- [2] Guideline for Ethical Practice in the website of Association of Professional Engineers and Geoscientists in Alberta (APEGA). <https://www.apega.ca/pdf/Guidelines/GuidelineEthical.pdf>.