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Project Supply Chain Management Best Practices and Success Factors

Effective Supply Chain Management is a key success factor in Projects. From our observations, we have identified several best practices that help make Project Supply Chain a success. Some may be counter-intuitive. In this White Paper we examine in detail those specific practices that make Supply Chain successful in Projects.

The importance of Supply Chain on projects

On Large, Complex Projects Supply Chain can represent 30 to 60% of the total project value depending how fabrication and construction subcontracts are counted.

Not only is the amount significant, but the timeliness and quality of delivery on-site is also decisive, because of the consequential impact of a failure on the entire project: the construction phase is the phase in which the rate of expenditure is the highest.

The issue of timeliness is essential, and it is often inadequate to spend time to save a few % on the buying price when the consequential impact of quality or schedule can be several % of the entire project budget. And because project success lies a lot in holding the schedule, a lot of best practices will revolve around an absolute priority given to schedule.

Organization best practice

When the SCM manager needs to be part of the project team

There need to be a strong representation of the SCM function within the Project team so that the proper coordination is achieved. Whether or not the SCM function handles the key awards centrally or whether everything should be embedded within the project depends on the organization. Factors that lead to including the SCM function fully within the project involve:

- Limited quantity of standard and bulk material,
- Low volume effect that can be gained between projects,
- High number of subcontracts,
- Complicated and project-specific logistics.

Budget all necessary SCM positions

Effective Supply Chain Management come with the right people and skills to manage all responsibilities under SCM. The right team needs to be budgeted initially and positions like Subcontract Engineer, Expeditor or Logistic Coordinator need to be identified when required.

Recognize the difference between supplier and subcontractor

One of the key success parameters is to have distinct processes and approaches for suppliers and subcontractors. Organizations often have one single way of dealing with all purchases which will depend on their history. It is not rare to find organizations that treat subcontracts like Purchase Orders or vice versa, organizations that treat each simple Purchase Order like a contract to be negotiated line by line. This is a recipe for failure.

Pre-award best practices

Proper procurement planning

A complete procurement plan needs to be developed latest at the start of the project, listing all packages to be supplied, and all the necessary dates for availability up to award and

sending out the Request for Quotation. Once aligned with the baseline schedule, this plan will be a key reference.

As a note we need to reinforce that this procurement plan must be realistic and fit with the available resources and constraints (such as unavoidable client approval processes for certain critical packages). It is not rare that procurement constraints influence the actual realistic schedule.

Long-lead items

Long-lead items are specific items in the procurement plan which manufacturing duration is critical path for the project. They often need to be awarded as a matter of priority soonest in the project. Often everything will have been prepared in advance so that the award can happen at the actual decision to proceed with the project. An issue that is important is to make sure that proper terms and conditions are applied that are aligned with project prerequisites and that the design of the facility is mature enough to avoid late changes to these items.

Tight interface with engineering

A strong interface with engineering needs to be maintained during the first phase of the project to cover the requisition, bid clarification and start of manufacturing phases. It is highly recommended to implement weekly meetings between the engineering and SCM teams to ensure a close coordination and action tracking.

Do not take the lowest bidder – take the bidder that gives the best delivery confidence

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A mistake that is amazingly repeated stems from the cost-driven mindset which is actually not applicable in project execution. Taking the lowest bid is not necessarily the cheapest option if there is a risk of delay that may affect the project and have huge consequential effects. Therefore, it is required to arrange a supplementary total cost comparison including some possible risks or loadings and it is sometimes preferable to stick to suppliers and subcontractors that have a well-known delivery track record even if they are slightly more expensive. The confidence in the timing of delivery is a major parameter to consider when comparing offers.

Post-award best practice

Avoid losing time before starting manufacturing

It is common to lose a lot of time between award and start of manufacturing because of delays in the production, submission and approval of relevant documents by the vendor. It often takes more time to agree on the documentation than the production of the item itself! Sufficient focus needs to be put on this phase and appropriate dashboards setup to follow performance.

Do not mix expediting and inspection activities and their accountability

It is essential that inspectors and expeditors check the actual situation in the supplier's plant. That means that they actually set foot on the work floor and check the accuracy of reports. At the same time, it can be dangerous to rely on inspectors to do expediting reports: they don't have the time or the focus and can be easily swayed by the vendor. Expediting and inspection needs to be kept separate and redundant to ensure accurate data reporting.

Proper package management on complicated procurement and subcontracts

On complicated procurement and on subcontracts, cross-discipline supplier management (not just contractual) is required. A package lead has to be designated to follow-up the contract from award to closure, which role will be:

- to coordinate all disciplines
- act as a Single Point of Contact for the supplier/subcontractor and the client
- keep the full history and manage all contractual aspects with the supplier/subcontractor

This role will be further expanded in a subsequent White Paper.

Logistics and receipt best practice

Include actual logistics schedule in the plan
Logistics durations can be difficult to guess in particular in certain circumstances or countries. There might also only be periodic regular transports available, and customs clearance can reserve surprises. Logistics durations need to be initially considered prudently and then be adapted once there is sufficient feedback available on the actual situation.

Focus sufficiently on logistics to avoid losing items (risk management)

Many events that create havoc on projects involve the disappearance or the damage of items during their transportation. One of the reasons is that logistics is not considered as a key activity and is not sufficiently risk assessed. Sometimes malevolent acts must also be considered such as theft, piracy. Here again, the lowest price solution might not be the best if the project can be stopped when items get missing or damaged.

Receive and report immediately

The receipt process on site is critical to assess the conditions of the items received. Unfortunately,

it often happens that crates are only opened a number of weeks after arrival on site. This should not be the case, receipt should be immediate so that any problem can be addressed as soon as possible.

Preserve properly

It is not rare that items that have been shipped to site in proper condition become degraded because of poor preservation and have finally to be scrapped. This is often a double whammy in terms of delay because such situation is only detected when the items are about to be used. Proper planning needs to be implemented if specific preservation investments have to be built in advance (waterproof or air-conditioned stores, etc.)

Conclusion

Supply Chain success in a project mainly lies in planning properly and then keeping the schedule. This often means to be careful with promises regarding delivery dates, and taking the safe road of proven suppliers and subcontractors that have a track record of keeping schedule.

Working as a project team is also a key success factor, requiring the Supply Chain team to be deeply embedded within the project team to address as a team the daily challenges of project execution.

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