

Working in complex supply chains

The problems and pitfalls below can apply to anyone involved in complex supply chain deals. I am using specifics in the spray nozzle business because that is the niche I know best. But swap the word spray nozzle for valve, flange, pump, or any one of a 1000 widgets and the message below still applies.

Working in complex supply chains

Our business, the spray nozzle business, can be very simple but can also be very complex. Every day customers will call us up and ask for replacement products or will ask for advice on nozzles that will solve x,y or z problem. We will give the necessary advice, specify the correct product and then supply it. The whole sales cycle can take a matter of hours. This is all nice and easy to manage and if everything in business were so simple we would probably all be a lot poorer because the larger, juicy contracts simply cannot be such easy transactions. Like it or not complexity is a feature of bigger deals.

The larger contracts we deal with are at the completely other end of the buying cycle complexity. As a business, we also need to be able to handle very long and complex buying cycles involving projects for the world's largest companies. This requires a specialist skill set and it is one the value and importance of is often overlooked. Moreover, successful supply of components in a complex engineering project often involves collaboration with other companies within the distribution network. This is especially true when the purchasing company changes over time and moves around over international borders (see below).

The bigger picture

A large project, say the provisioning of a new chemical plant, may involve various applications that require spray nozzles. The nozzles will be one of many thousands of components that need to be supplied in the project. This is, of course, a headache for the end customer and so typically the project will be parcelled into various elements each dealt with by specialist subcontractors.

It is unlikely that we will ever deal directly with the plant owner direct and, instead, will be supplying our components to one of the sub-contractors. Initial contact may occur when several engineering companies are bidding for the same project. These firms may be located in one country or, as is oft the case, in multiple different locations. So, we immediately have the problem of managing quotes in different countries, currencies, languages, times zones and quite possibly involving multiple competing distributors of the same product. For clarity, when I say "the same product" I mean the same manufacturer's product i.e. it is being potentially supplied by distributors in different territories. We can, of course, take it as a given that other manufacturers and their distributors will also be involved. So, we have both "internal" and "external" competition.

Who's the customer?

Often exactly who the "customer" is will be hard to establish. The initial request for a quote may come from a design engineer in one company but the actual installation may be carried out by another sub-contractor and neither of these are the end user.

So, who our customer actually is often shifts throughout the deal cycle. There is a certain ambiguity to this seemingly basic question that does not exist in simple deals.

When does the sale happen?

The adage that a deal is not a deal until the money is in the bank is very true but the company that ultimately buys the product may not have had very much involvement in our sales process. It is very often the case that we will spend a year or more working with design engineers specifying our product only for the final order to come from a sub-contractor whose only knowledge of the product is the part number written in the spec sheet. So, when did the sale occur? When did we as a company actually "win" the deal. Was it when we got the signed PO, or did it occur a year before when the product code was entered onto the design drawing? I would posit that it is the latter when we successfully concluded our work.

Whose deal is it anyway?

Complications on deal ownership can often occur if the supply chain is international. We, as a distributor, have set territories for the products we sell. It is entirely possible that the design engineering company we initially start dealing with in our turf does not actually end up buying the product. If another company ends up buying the product and that company exists in another distributor's turf, whose deal is it?

As mentioned above the hard work of specifying the nozzle may well have been done and dusted many months before an order is placed. If the order is placed by another sub-contractor outside our territory then that hard work is now, effectively, picked up by another company who had almost no input or influence on the deal. Their customer simply places an order for the specified spray nozzles on the drawing supplied by our customer. Nice work if you can get it, but hardly fair.

Now, this should all come out in the wash eventually. One should receive these bonus "gift from the gods" orders as much as one gives them away. But working in this way has many dangers. Obviously, it creates hard feelings, bruised emotions and disharmony within a distributor network. No one likes working hard on a deal to have it gifted away by the whims of fate. If you have ever met a sales person who does not get emotional about such matters then you have just met a sales person who does not care enough to be good at their job. But more important, perhaps, then even the disharmony this causes is that handling a potentially large deal where you have no specific knowledge of the design process is full of risks. It should be obvious to anyone that it is far preferable that we understand exactly what we are selling and why.

A good manufacturer will have in place the mechanisms to bypass some of the territorial rules that govern which of its distributors gets the deal. Oversight of large deals and end-to-end ownership, regardless of which territory the deal ends up being placed from, makes sense. Of course, the downside of this is having a confused supply chain with customers not knowing which distributor to buy from. These are not simple problems to solve but key to managing them is good communication and, above all, a mutual trust between the distributors in the network.

Documentation

Another issue that is often overlooked is the importance of documentation in these large deals. No one really writes a specific specification document for just the spray nozzles. As noted above, the nozzles will be but one component in 1000s so a standard spec is generally sent with all request for quotes (RFQs). The bit relevant to nozzles will be buried in an often 100 page plus scoping document.

Within these documents the general testing, compliance and certification requirements will also be stated. Again, most of these will be irrelevant to the nozzle but some will and knowing which are and which to ignore or ask for exemptions on really comes down to understanding the product. As the customer will not really understand the nozzle part of the spec, especially if they are simply reading from a design spec sheet (see above) they may, for example, be insisting on testing that really is not required but, because it is in the scoping document then they erroneously insist on it.

The classic example of this is the European Pressure Vessel (PED) directive. We often get asked to provide PED testing on spray lance assemblies. This is because the overall vessel which they are going into is a pressure vessel. The problem with PED testing a nozzle is that the only way you can do it on a spray nozzle is to bung up the nozzle and then test it. A spray lance is an open system so in its normal state you can't pressure test it. Providing PED test certs on a spray lance that has been artificially sealed just so a pressure test can be conducted provides the customer with no information about the quality of the item. It's a complete waste of money. A bit of knowledge and experience can, therefore, save the customer pointless testing costs. Having a company that really understands these things is of great value especially when the company purchasing the item was not involved in the initial RFQ and may erroneously insist on a PED test just because the overall spec sheet says so.

These documentation problems are only exaggerated when the deal globetrotts and moves around between different sub-contractors. An already complex documentation regime becomes even more confused as it changes hands. Without end-to-end oversight, the potential for misunderstandings should be obvious. Again, this is a strong reason to sometimes buck the official distributor network and allow company that started the deal to finish it even if the order is eventually placed outside of "their" turf.

Managing the maelstrom

All the above presents a significant headache for manufacturers and value-added resellers alike. There are no easy solutions that will solve all the problems, but the following key factors will help:

1 Consistent pricing structure

The manufacturer needs to ensure consistent pricing for all distributors. Differentiated pricing will only cause confusion and strife in the supply chain. This will also only fuel any internal / inter-distributor angst and mistrust.

2 Communication is important

Good communication between the manufacturer and its distributor network. Large deals need to be tracked and sometimes, when they shift borders at the last minute, the official distributor for that territory may not be the best one to take the order. A common sense and fair approach should be taken.

3 Trust is vital

Trust between distributors. This is a big one. If it can be established, then many of the problems can be solved with the aforementioned common sense approach. If the deal swaps borders, then trust will allow exceptions to the normal territory rules to be applied so the most appropriate distributor carries on with the deal. A lack of trust, in contrast, will result in tribalism and inter-distributor conflict which, in the end, will lead to confusion for the customer and a lack of trust in the manufacturers brand. There is almost nothing worse for a buyer seeking clarity on a complex project than dealing with squabbling distributors.

4 No one wins a civil war

Often wily buyers will “distributor hop” playing one distributor off against another for better pricing on the same product. The hope is that an internal price war will occur resulting in reduced costs. But these price wars, like all civil wars, are ultimately bad news for all involved, including the end customer.

All that happens here is that margin is eroded. If margins get squeezed too much the softer costs, such as those associated with documentation and testing, may end up being forgotten about in the desperation to win the business. In order to win the civil war there is a temptation to low ball pricing. What one then ends up with is unprofitable business and some awkward conversations with the end customer about how the quote is no longer valid because x,y or z was missed out.

Good communication between the manufacturer and the distribution network should allow for a standard pricing model for the deal that takes in to account the soft costs as well as the hard costs. This standard pricing means distributors will not be competing with each other. Ultimately, it will result in the deal happening properly with all costs accounted for rather than a scrap about who can offer the cheapest price.

Conclusion

The complexities of navigating large international and border hopping deals can be high. There is plenty of room for confusion, infighting and error. Unmanaged, these will ultimately damage the manufacturers brand as they will result in poor service to the end user. It is, therefore, vital to establish a connected and trusting distributor network. The manufacturer will be vital in this process but each distributor in the network also bears responsibility for their part in building the trusted networks that are necessary to navigate the chaos.

For our part, we are happily part of a strong and trusting distribution network. Our principal supplier of nozzles, Bete Fog Nozzle, have worked well with us and our global partner companies to establish good working relationships between us. We meet and talk to each other regularly. Sometimes there are tensions on deal ownership, this is inevitable, but the mutual trust we have means common sense will always prevail. This means our end customers involved in highly complex projects get what they need most, namely, a swift and hassle-free supply of key products. This way everyone wins.

SPG, March 2019.