

Deal! - Simulate cost prices and negotiate based on facts.

Buyers: The facts are there for the taking!

By Jan Valkhof and Robert Driessen

Negotiating is inherent to buying, but does that mean that all buyers are good at it? And, if so, what is the quality of this competence based on?

The ritual mating dance

Experience shows that most negotiations still start from a defective preparation with meaningless goals like 'let's see how I can get the price as low as possible'. This is strange because nowadays we have all the information to perform a good and professional fact based negotiation. Try to stay away from the most painful part of the process; margin. There are at least 15 other cost drivers that could be the topic of your conversation. Think about the (development of) commodity prices, energy, wages, stock and transport. But also office costs, overhead, waste processing, location of production and the depreciation of buildings and machines.

Soon, everyone can see everything

How amazing, professional and righteous would it be to do business on the basis of transparent data. But unfortunately, because this still feels like a disadvantage for the selling party, it is an exception to see negotiations with open-book calculations. But all this data is available and it is just a matter of structure and interpret. Many industries are way ahead. Just look at the financial industry, the medical sector and leading online companies. Everything is data. The bank has become an IT-company, computers mutate data and algorithms are predicting my needs before I even know I have them.

Procurement is late, but the digital transformation has finally made its appearance. This is resulting in an improvement of processes and structure, but there is one discipline that is stuck behind: should costing.

What is should costing?

Literally: what should something cost. There are several ways to get insight in a cost price. The most simple way is to ask your supplier. “Hi partner, show me how your cost price is structured. Together we will try to see if it can be done more efficient. We both take responsibility off the supply chain and we both gain something. And if we can’t improve anything, at least we have insight in each other’s businesses which creates better understanding.” But okay, if this doesn’t work, the buyer can make his own calculation. Should costing is possible in two ways: bottom up or top down. The most common way is starting bottom up with a blank piece of paper. What things are part of manufacturing a specific product? The analyst will study the process and the market, gather data and calculate and simulate. Depending on the complexity of the product, such a study can take several days to several weeks. Regular buyers rarely have the time to do this. Besides, it also requires some competences to build a good cost analysis. In reality, bottom up should costing is often only applied by very passionate professionals (=positive) or external advisors (=expensive). This is why WTP (What’s The Price) has tilted the process and performs top-down should costing. It helps to simulate a product (development and cost models) within a few minutes. It’s matter of combining the right data and subsequently let the software do its work to determine the cost.

WTP uses four databases:

- Company data (266.000 companies)
- Wages (within 55 countries)
- Commodities (800 commodities with 10 years of history)

- Currencies (44 different currencies)

Within the software, a user can then fill in four things:

1. What industry manufactures my product?
2. What country manufactures my product?
3. What are the most important commodities in my product?
4. What is the weight of these commodities?

As soon as a buyer has (part of) this information, simulating the cost price only takes a few minutes. Disclaimer: we are talking about direction and not perfection. Experience show that the simulation approaches 90 percent of the actual cost price.

Why should costing?

Savings that are caused by should costing, are in no way comparable to traditional negotiation results. Fact based arguments are incredibly strong and almost impossible to disprove. This ensures short term or immediate results. Here are three examples:

Case 1: a pillow from China for an interior shop

An interior shop outsources the production of pillows to China. The wages in this industry are relatively low so a shift towards different countries with lower wages will probably yield little. The focus should be on the choice of material because this determines 58% of the cost price. The average profit margin within this industry is fair: an ebit (earnings before interest and tax) of almost 19%.

If we look at price development, the following is noticeable: commodity price have dropped 20% since 2015. Because commodities determine 58% of the cost price, the price should be 12% lower. The polyester cover represents €1,36 of the total material costs of €1,57; so basically the buyer just has to follow this material.

Commodity	30-04-2015	30-04-2018	Change	% Change
<input checked="" type="checkbox"/> Polyester 100% 60S Combed Spun Yarn (Karachi) (PAK)	1,759	1,360	-0,399	-23%
<input checked="" type="checkbox"/> Polyester 100% 45S Carded Knitting (Qiangqing) (CHN)	1,247	1,109	-0,139	-11%

Source: WTP should costing tool

Let's say we make the cover slightly thinner by using 45S instead of 60S and we buy our fabric in China instead of Pakistan. In my pillow, this can make a difference a whopping €0,15. This is 10% material costs and 5,8% decline in the total cost price. This department store buys 126.000 pillows a year and has a saving of €18.900 within reach.

Companies spend an average of 45% of their production costs on materials. The remaining 55% goes to profit and other costs. Needless to say, the differences between industries are huge. For example, in the production of pleasure articles like tobacco, syrup and distilling liquor, ebit reaches a percentage above 60%! In contrary, hardly any money is earned in slaughterhouses. The cost share of the animal determines 80% of the cost price. So when the buyer makes a mistake and the meat processor is stuck in a large contract with a retailer, this has a huge impact...

Case 2: A metal valve for water distribution

Within the industry 'industrial valve manufacturing', 36% of the price is determined by material. Many price increases are substantiated with commodity price increases, but in this case the impact of a price modification is only slightly more than a third. The impact of wages in contrary is very high. Production related earnings in Italy represent 11% of the cost price in this industry and the other staff represent another 10%, so together 21%.

Industrial Valve Manufacturing	% of sale	Values based on material costs
+ Direct Materials	36,21%	22,585
+ Direct Labour <input type="text" value="Italy"/>	11,01%	6,867
- Manufacturing Overhead	6,96%	4,341
Contract Work	1,74%	1,087
Depreciation charges on CAPEX	2,27%	1,416
Energy costs	0,82%	0,511
Maintenance and Repair	0,76%	0,474
Purchased Professional /Technical Services	0,57%	0,358
Rental cost buildings	0,42%	0,265
Rental cost for machines	0,17%	0,107
Waste removal cost	0,19%	0,122
Cost of Sales	54,18%	33,794
- General Services & Administration	18,20%	11,352
Total fringe benefits	2,24%	1,399
Salaries	7,76%	4,841
Total other expenses	5,38%	3,358
Cost of Resales	2,81%	1,755
Ebit	27,62%	17,227
Total Price (ex works)	100,00%	62,373

Average cost price structure in the 'industrial valve manufacturing' industry.

Source: WTP should costing tool

Let's say the same production process takes place in Poland, then wages represent just 7% of the cost price. That is a difference of 14% compared to Italy. Within this industry, the buyer is better off focusing on location than the development of commodity prices. In this example, production in Poland leads to a potential decrease of €15 per valve. That reduces the price by 24%. For a technical wholesaler that buys 1.500 of these valves, this means saving €22.500. Another noticeable thing is that the average ebit in this industry is quite high, with 27%. The negotiation can be started with a little less compassion.

If we focus purely on wages, Norway is the most expensive country to produce. They have an average hourly rate including secondary conditions in production above \$60. Switzerland and the other Scandinavian countries pursue with an average hourly rate between \$40-\$60. The Netherlands are slightly above America and Canada with \$40. On the bottom of the list is India, still 40% lower than China. Hourly rates in the countries in eastern Europe are three times higher than in the far east, but a country like Taiwan is more expensive than Poland.

Case 3: a semi-professional video camera

With the AV-industry, material costs determine only 39% of the cost price. Other than commodities it consists of bought components. An important part of the costs is fixed: depreciation of buildings and machines, R&D and overhead. The percentage of fixed costs in the cost price is 41,55% (Overhead +GSA)

This means that the buyers volume has a large impact on the cost price. Many elements are fixed and the variable costs are relatively irrelevant. In this case, the buyer should focus on the development of buying volume or bundling volume. Material and labour costs (4,5% in Korea) are less relevant in this industry. If you increase you buying volume from 100 to 125 camera's, you can make an appeal to a price decrease of 7%. Your growing buying volume doesn't make the manufacturer build another factory, a lot of costs stay the same. You contribute more to fixed costs and should therefore benefit from the volume advantage. And in this case, the benefit is quite sufficient.

Current quantity				100
Future quantity				125
	Share in industry	Fixed	Fixed Overhead	Growth Share
Manuf. Overhead	8,58%	70% ▼	6,01%	
Gen. Services & Admin.	32,97%	90% ▼	29,67%	
Total fixed overhead			35,68%	x 0,20
▲ Overall price change			-7,14%	
Old WTP cost price			691,159	
▲ New WTP cost price			641,839	

Source: WTP should costing tool

Simulation growth on the basis of fixed and variable costs within the AV-equipment industry

Assuming 70% of the overhead costs are fixed and 90% of GEA, we're talking about €50 benefit. Your price decreases from €691 to €641. For this buyer, we're talking about saving €6.250. Volume is often underestimated in a negotiation. Regularly there is a contractual growth bonus, but this bonus is about promilles rather than percentages. This is in addition often only applied to the extra volume and not to the total volume. Most of the time, you can assume that when material costs and labour costs are low (or the other way around: development costs and overhead are high) volume has a large impact on the price.

And now?

Let's turn it around: what reasons could there be to not use data and start fact based negotiating:

1. The buyer doesn't have information
2. The buyer doesn't have time
3. The buyer is not that analytical
4. The buyer doesn't dare to confront the supplier with facts

The first obstruction is solved by smart software. And because there is little time for preparation and data collecting (point 2), the challenge is within classis time management: the shifting of priorities from operational to tactical, enlarging capacity, asking for help and learning how to delegate. Within the case of point 3 and 4, the buyer has a different challenge. These points mean it's time to ask yourself the question if buying connects with your competences. A procurement professional owes it to the speciality of buying and owes it to its employer to use fact-based data as a priority within his/her job.

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