

Digitalization, chemical distribution and the chemical value chain – Part I

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Do you still remember ChemConnect, CheMatch, cc-chemplorer and the like? More than 15 years after these companies set out to disrupt the chemical value chain, the topic is back. While most of the then startups have failed (Elemica being the notable exception), today's efforts might fare differently. In our series we focus on distributors who link producers and (usually) small customers. However, some of our thoughts affect the complete value chain.

We start setting the scene for digitalization, then step back a little to discuss some common misconceptions on the role of a distributor, followed by ideas on properly managing the relationship principal/producer vs. distributor. Finally, we come back to digitalization by discussing electronic marketplaces and their impact on the chemical value chain.

Digitalization in Chemicals – Getting rid of distributors for tail-end customers and unknown territories?

When talking about digitalization, disruption is all the rage. Disruption of business models, disruption of value chains, disruption of everything that has to do with customers. So, with all major chemical producers talking about digitalization projects in the range of two- or three-digit millions, disruption of the chemical value chain is already underway. But what will be affected and – focus of our thoughts – is that the end of chemical distribution?

First let's start with the good news for all the companies that produce, distribute or process chemicals. We will continue to live in houses, eat whatever we like (or what an influencer promotes), dress up and use interfaces with the digital world. In our modern world all of that requires chemicals. Hence, whatever digitalization is going to change – chemicals as building blocks or as ingredients that improve performance, safety and durability of things of our physical world are going to last. And thereby its producers as well as processing companies. But what about distributors?

Digitalization will definitely change all processes (and businesses) which deal with information. Whatever can be digitized, surely will. For the market side of the chemical value chain this translates into direct communication between chemicals processing enterprises (customers) and producers. Whenever a customer's tank or warehouse space runs empty, in a completely digitized world this (already existing) piece of information could directly feed the production (and marketing) plan of the producer, cutting out all the intermediaries, i.e., the chemical distributor. This idea probably resonates well with many a business head who regards distributors as a necessary evil with no other purpose than pocketing the (rightful) margin of the producer.

However, if we take a closer look at the value chain AND at the wishes of the customers, there is more to a distributor than just passing through information.

- Firstly, the distributor not only acts as demand bundler in the above sense towards the producer, rather it bundles the demand for various chemicals/supplies towards the

customer. Accordingly, a customer is not interested in getting chemicals from several producers (meaning several deliveries at its warehouse), if he can get them bundled in one delivery from one distributor.

- Secondly, the distributor takes care of the physical delivery of the chemicals, if required including repackaging in unit sizes smaller than the producer offers.
- Thirdly, with some specialties, the distributor acts as technical “first level support”, freeing time of technical sales staff of the principal.
- And fourthly, a distributor can and should act as a trend scout and service provider (e.g. customs clearance) in markets too small for a producer/principal to serve. This latter function makes sense, if the distributor is already present in a certain market the principal wants to enter.

In a first and quick assessment, the market scout function and the technical “first level support” could indeed fall victim to digitalization:

- Market scout to artificial intelligence which systematically collects all data on a certain market and then comes up with predictions on which sectors will grow at what speed and with which demand of certain machinery, chemicals, financing etc. However, this kind of information will then be available to ALL interested buyers and no longer confined to a one-to-one distributor/principal relationship.
- “First level support” to artificial intelligence and/or augmented reality. In case of problems with the use/application of a chemical, there might be solutions coming up with no human staff involved. E.g. an artificial intelligence interface with search options for solutions of the problem within a huge database of reported problems. Or, if machinery or the like is involved, augmented reality might guide through the problem-solving process.

For the two other roles of a distributor in the value chain there is no digital replacement in sight – the bundling of products for the customer and its physical delivery. That’s the good news. The bad news is, there are different players operating in these areas which might qualify as the future winners, hence have to be watched: chemical distributors, (chemical) logistics companies, amazon/Alibaba or similarly powerful internet giants.

We do not reckon incumbent chemical companies as serious competitors in this arena, due to the customer need of bundled deliveries (often more than one supplier) and physical delivery. While the information flow from customers to producers/principals will work seamlessly, the complexity of managing all the product needs in addition to one’s own products is going to kill any business case. Especially since the logistics requirements usually differ in size and volume, asking for infrastructure investment at the wrong (tail) end of the customer base.¹

If a business head of a producer still thinks the chemical distributor a redundant money-grubber, a different understanding of the business model might help. But that’s topic of our next piece.

¹ Part III of our series is going to deal with the future of distribution.