Disintermediation-Activity Matrix: A Framework for Adoption in the Chemical Industry

Kin Bee Tay, Business Consultant, Singapore
Dr. John Chelliah, Corresponding Author, Faculty of Business, University of Technology Sydney, Australia

ABSTRACT

There is evidence to show that chemical distributors are being disintermediated by their suppliers. Extant literature has only touched upon where, when and the extent to which disintermediation is occurring. This article examines the drivers that can trigger suppliers to disintermediate their distributors or to leave the distribution channels intact on a country, business unit or product-wide basis. The paper concludes with a proposed Disintermediation-Activity Matrix framework that can serve as a guide for suppliers and distributors to determine strategies for a variety of situations.

This article is based on a review of the literature on current and recent trends in chemical distribution channels, complemented by the vast chemical distribution experiences of the main author. The article critiques the extant literature and contributes further understanding of the disintermediation phenomena by proposing a practical framework.

Chemical distributors are evidently being disintermediated by their manufacturers. However, manufacturers and distributors diverge in their views of why disintermediation occurs, and often there is miscommunication by the manufacturers to their distributors. The factors that could influence manufacturers to take over the roles of their distributors are analyzed and systematically laid out in the Disintermediation-Activity Matrix (DAM) framework. In analyzing the marketplace either as a country, business unit or product-wide basis, the matrix will show whether distributors can be disintermediated and the level of difficulty in disintermediating for each type of activity.

Keywords: Business Strategy, Chemical Distribution, Disintermediation, Chemical Manufacturers, Disintermediation-Activity Matrix.

INTRODUCTION

The chemical sector world sales were estimated at US$3.6 Trillion (€2,744 Billion) in 2011 (CEFIC 2012). The Boston Consulting Group (BCG) estimated that for the Asia Pacific region the chemical distribution business accounted for 6% of the chemical market as against the global average of 9% (BCG, 2010). At 6%, the chemical distribution market would have been worth about US$216 billion in 2010. BCG expects growth to be in the region of 10 to 13% per annum over the next five years. The top ten international chemical distributors are estimated to control about 23% of market (BCG, 2010). 20 to 40% of the chemicals are consumed by small companies which are defined as companies consuming <€100,000 of chemicals per annum (BCG 2010) which are mostly serviced by chemical distributors. The top six global chemical distributors are Brenntag, Univar, Nexeo Solutions, ICC, Azelis and IMCD which have sales turnover of about €8.7billion, €7.5billion, €3.1billion, €1.7billion, €1.3billion and €1.0billion respectively for 2011 sales (ICIS, 2012). These six global chemical distributors handled about 12% (based on a total estimate of €260 Billion) of the global chemical distribution business value in 2012.
The chemical distribution sector is undergoing a tremendous change in its market landscape with private equity firms (PEFs) acquiring many chemical distributors (Tay and Chelliah, 2013). Today many of the top global chemical distributors are owned by PEFs.

Traditionally the chemical distribution business was driven by scale and network density and chemical manufacturers typically give the small and medium sized customers to their distributors to service. However, there is evidence to show that chemical manufacturers are disintermediating their distributors, regardless of the size of customers. This raises several questions:

1. Why are chemical manufacturers disintermediating their distributors?
2. At what point do chemical manufacturers decide to disintermediate?
3. Do chemical manufacturers have a systematic approach towards disintermediation?

This paper will attempt to answer these questions through content analysis of existing academic and practitioner literature across various industrial disciplines, with a focus on solely on the chemical industry. We searched for articles in ABI/INFORM, Business Source Complete (using EBSCOHost), Emerald, and JSTOR with disintermediation in chemical industry as key words for articles published between 2000 and 2013. The search resulted in only 6 papers (see reference list) after elimination of articles not related to chemical industry.

<table>
<thead>
<tr>
<th>Author</th>
<th>Journal/Conference Papers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Datta, 2005</td>
<td>European Conference on Information System.</td>
</tr>
<tr>
<td>Braithwaite, 2002</td>
<td>EPCA Logistic Meeting, Monaco.</td>
</tr>
</tbody>
</table>

This shows the dearth of knowledge in this area in the literature. Therefore, to strengthen this paper we have also drawn on the work experience of the lead author who has worked in the chemical industry for 30 years of which the last 14 years as a senior manager for a major chemical distributor in South East Asia.

**Distribution Roles and Possible Areas of Disintermediation**

The various key roles of chemical distributors are presented in-depth in Tay & Chelliah (2010) within the constructs of “Matching of Buyers and Sellers”, “Facilitation of Transactions” and “Institutional Infrastructure”. Figure 1 below shows a macro version of the different activities and roles of distributors within the supply chain distribution channel from the time the goods leave the manufacturers’ warehouse until the goods arrive at the customers’ warehouse. It also lays out the traditional roles that distributors perform for and on behalf of the manufacturers. In essence, disintermediation means manufacturers take over intermediary services provided by their distributors. Naturally, there is no process within the supply distribution channel that the manufacturers cannot do or are unable to take over from the distributors. However, manufacturers will have to ask themselves whether they could do it more efficiently and effectively by taking over.
Evolution of Disintermediation

Perchthold & Sutton (2000) describe disintermediation as a situation in which two parties no longer require an intermediary for the transaction. Sampson & Fawcett (2001) define disintermediation as a situation in which consumers are allowed to have direct access to manufacturers without using any intermediary. Li & Fung (2009) simply define it as the removal of intermediaries in a supply chain.

One common theme in all these definitions is the removal of the intermediary which in essence is disintermediation. There is a growing body of evidence that shows that disintermediation of distributors is ubiquitous in the chemical industry (Tay and Chelliah, 2010; Datta, 2005; Day and Bens, 2005; Lee, Lee and Larsen, 2003; Hammer, 2000) both in the physical supply chain as well as in the e-Business-to-Business (e-B2B) e-marketplace. Disintermediation could reduce the bargaining power of the distributors and threatens the survival of distributors in their present roles (Li and Fung, 2009). This is especially true for traditional intermediaries who act between manufacturers and customers with minimal value-added services.

Much has been written about the roles of e-B2B (e.g. Bull, 2010, Smith, 2009) and how it disintermediates the traditional distributors’ roles (Tay and Chelliah, 2010). The e-marketplace mainly cuts informational transaction costs with little impact on the physical distribution roles (Sharman, 2000). Research by Tay & Chelliah (2010) shows that traditional distributors do face partial disintermediation from e-B2B exchanges; although there are roles that a traditional intermediary could play to stay in the supply chain channel saving them from total disintermediation. Chemical distributors are facing disintermediation from many fronts. Chemical manufacturers are moving toward serving their key customers (especially global companies) directly thereby disintermediating distributors (Tay and Chelliah, 2010). BCG (2010) in their research estimated that 79% of manufacturers outsourced their chemical distribution business to distributors for customers buying less than €100,000 of products per annum. This would effectively mean that big customers would be buying directly from the chemical manufacturers eventually.

![Figure 1: Distribution Activities and Possible Disintermediation Areas](source: Developed by authors)
This paper will not focus on disintermediation by e-B2B as this was well covered by Tay and Chelliah (2010) previously. Instead the focus will be on disintermediation of distributors in physical goods supply chain by chemical manufacturers.

**DIVERSE PERSPECTIVES**

**Customer Perspectives**

In the BCG (2010) survey, purchasing managers of chemical customers were asked to determine the criteria that are important when making their purchasing decisions. The survey was taken from 2 categories of companies, that is large companies (companies with greater than €5 million annual sales) and small companies (companies with less than €5 million annual sales). Their responses are summarized in Table 1 below:

Table 1: Survey results when customers are being asked “Which criteria are important in your purchasing decisions for chemical products?”

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Large companies (companies &gt; €5 million annual sales)</th>
<th>Small companies (companies &lt; €5 million annual sales)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Price</td>
<td>77%</td>
<td>64%</td>
</tr>
<tr>
<td>Product Quality</td>
<td>52%</td>
<td>62%</td>
</tr>
<tr>
<td>Speed of Delivery</td>
<td>48%</td>
<td>62%</td>
</tr>
<tr>
<td>Flexibility of Delivery</td>
<td>43%</td>
<td>46%</td>
</tr>
<tr>
<td>Additional Services</td>
<td>30%</td>
<td>27%</td>
</tr>
<tr>
<td>Global Reach</td>
<td>16%</td>
<td>25%</td>
</tr>
<tr>
<td>Technical Support</td>
<td>14%</td>
<td>18%</td>
</tr>
<tr>
<td>Breath of Product Portfolio</td>
<td>10%</td>
<td>9%</td>
</tr>
<tr>
<td>Application Expertise</td>
<td>9%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Note: % exceeds 100% because multiple responses were accepted.
Source: BCG 2010

Table 1 indicates that Price, Product Quality, Speed of Delivery, and Flexibility of Delivery were high on customers’ priorities. Although the order of preferences was different for the large and small companies, by and large, the top four roles identified were the same for the both categories.

Tay and Chelliah’s (2010) results of a One-Time T-test showed that the top five significant preferences of chemical buyers on the roles of distributors were: 1) On-Time Delivery; 2) Product Availability; 3) Trust Partner; 4) Aggregating; and 5) Credit Payment. If “On-Time Delivery” and “Product Availability” from Tay and Chelliah’s (2010) research could be equated to “Speed of Delivery” and “Flexibility of Delivery” from BCG (2010) survey then these two pieces of research return similar findings. Unlike the BCG survey, the Tay and Chelliah (2010) did not offer them “Price” factor as an option to the respondents as it was assumed that naturally buyers will nominate “Low Price” as one of the key preferences of customers and hence omitted it from the list of choices. Braithwaite (2002) in his investigation into supply chain systems for the chemical industry summarized the major tensions in economic preferences found between the manufacturers and the customers as shown in Table 2.
Table 2: Major Tensions in Economic Preferences between Manufacturers and Customers.

<table>
<thead>
<tr>
<th>Conflict Zones</th>
<th>Manufacturers</th>
<th>Distributors</th>
<th>Customers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prices</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Variety</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Lead Time</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Lot Sizes</td>
<td></td>
<td>?</td>
<td></td>
</tr>
<tr>
<td>Inventory</td>
<td></td>
<td>?</td>
<td></td>
</tr>
</tbody>
</table>

Source: Constructed using data extracted from Braithwaite 2002

The study covered five factors: prices, variety, lead time, lot sizes, and inventory. In the hope of increasing profitability, it is normal for manufacturers to desire price increases. However, customers naturally pursue price reductions. This inverse relationship is present in the other four factors in Table 3. Clearly the wants of the customer conflict with those of the manufacturers. Conflicts can potentially arise from this mismatch of preferences. Distributors are sandwiched in-between whilst attempting to provide services to both stakeholders with opposite preferences. Under the column of “Distributors”, question marks have been inserted to ponder the issue of how distributors would react to each a situation. What roles can the distributors play in such a challenging business environment? Distributors would be able to operate in a niche if they could find ways to align the preferences of manufacturers with those of the customers, thereby securing their position as intermediaries.

Manufacturers’ Perspectives

Lauria and Kauke (2006) surveyed chemical manufacturers by posing the question “What do manufacturers want from their distributors?” They grouped the responses into three categories under “Trust and Transparency”, “Competency” and “Volume Growth”. The responses are summarized in Table 3 below.

Table 3: Responses to the questions: “What do manufacturers want from their distributors?”

<table>
<thead>
<tr>
<th>Trust &amp; Transparency</th>
<th>“Enough time for my line”</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>“Full disclosure of sales information”</td>
</tr>
<tr>
<td></td>
<td>“Consistent market feedback”</td>
</tr>
<tr>
<td>Competency</td>
<td>“Broad access to the right customers”</td>
</tr>
<tr>
<td></td>
<td>“Technically competent distributor staff”</td>
</tr>
<tr>
<td></td>
<td>“Sales performance”</td>
</tr>
<tr>
<td>Volume growth</td>
<td>“Gross profit growth”</td>
</tr>
<tr>
<td></td>
<td>“Target account growth”</td>
</tr>
</tbody>
</table>

Source: Lauria & Kauke, 2006

From manufacturers’ perspective this survey indicates where in the value chain the activities of distributors fit in and the key roles expected of them. Broadly the key competencies sought in distributors are marketing, sales and distribution.
Distributors’ Perspective

In the study carried out by Tay and Chelliah (2010), the results of a One-Time T-test revealed that chemical distributors perceived that their role yielded the following primary benefits to the customers: 1) Product Availability; 2) On-Time Delivery; 3) Trust Partner; 4) Aggregating; and 5) Credit Payment. BCG (2010) affirms that distributors do indeed add significant value in the supply chain by managing complexity for producers and customers, physical handling of chemicals and providing financing and support. Chemical distributors could adopt the roles of being pseudo-manufacturers thereby creating the perception that chemical distributors are chemical manufacturers as well. Chemical distributors can buy in bulk and re-package or get products produced under their own specification and brand it under their own name or require chemical formulators to come up with blended products (Tay and Chelliah, 2013). However, chemical distributors have to be careful with this strategy as chemical manufacturers may perceive these distributors as competitors. Manufacturers could retaliate by cutting supply to distributors.

Arnold (2000) examined eight US companies over a two-year period covering the consumer, industrial and service business segments, which included a chemical company where distributors were involved. He studied the life cycle of companies and found that generally distributors started off well in the initial phase and after a certain period stagnation set in and sales plateaued, leading to subsequent decline in business. This point becomes the trigger for manufacturers to start their own subsidiaries to do distribution transitioning from an indirect to a direct sales channel. This often proved to be costly and disruptive and eventually proved to be inefficient (Arnold 2000). Further, Arnold evinces that companies appoint distributors to reduce risks associated with unfamiliarity of local business practices, regulatory requirements, gain introduction to local customers as well as manage local personnel.

Conflicts between Chemical Suppliers and Distributors

In a study conducted by Arnold (2000), the CEO of a chemical company commented that “many MNC (multinational companies) want to control their own operations through directly owned subsidiaries”. The CEO ventured further to add that “local distributors have merely been vehicles for market entry forming temporary partnership”. Any CEO harboring these kinds of thoughts certainly would view distributors with a biased outlook and when the circumstances arise they will seek to disintermediate their distributors. Arnold posed the question “Is there a future for Distributors?” and added that “Independent distributors are an endangered species”. The feedback that Arnold (2000) received points towards a gloomy future for distributors. The findings show that a great majority of MNC bought or fired their distributors at some point. It would be reasonable to assume that these relationship problems will further contribute to disintermediation. In Arnold’s survey, many negative comments emerged from manufacturers’ managers in relation to their distributors and vice versa. We have extracted some of the feedback from distributors and the manufacturers’ managers and presented them in Table 4.

Table 4: Comments from Manufacturers’ Managers on their Distributors and vice versa

<table>
<thead>
<tr>
<th>Comments from Distributors on their Manufacturers (Arnold, 2000)</th>
<th>Comments from Manufacturers’ Managers on their Distributors (Arnold, 2000)</th>
</tr>
</thead>
<tbody>
<tr>
<td>“They didn’t give us enough support for growing the business”</td>
<td>“The distributors didn’t know how to grow the market”</td>
</tr>
<tr>
<td>“They expected the impossible”</td>
<td>“The distributors didn’t invest in business growth”</td>
</tr>
<tr>
<td>“Their company politics were too complicated”</td>
<td>“The distributor just wasn’t ambitious enough”</td>
</tr>
</tbody>
</table>

Source: Compiled by authors from Arnold’s (2000) research data
These comments are very useful because they give an indication of what could be key drivers of disintermediation.

**DRIVERS FOR DISINTERMEDIATION BY MANUFACTURERS**

Is it possible for distributors to create value for the customers as well as for the manufacturers? Distributors exist as long as their roles fit the business environments in which they operate. The disintermediation concept is by no means a modern concept as in 15th century Spain Queen Isabella and King Ferdinand by-passed traditional intermediaries and went directly to the source to get spices (Sampson and Fawcett, 2001). This process has been in motion ever since. Going direct, bypassing the distributors, is simply intuitive, as the parties to the transaction believe that by cutting off the intermediary it will lower the cost of the transaction. At least on the surface it would appear to be so.

Traditionally, intermediaries enhance their distribution service offerings significantly enough to create a differential advantage that appeals to manufacturers and customers (Stern and Sturdivant, 1987). Westerfield (1915, cited in Fingleton, 1997) showed examples of how intermediaries in the nineteenth century used their market power to maintain their position in the intermediated trade and delayed the disintermediation process. They can only delay it but they cannot prevent it from happening. If distributors do not or cannot offer services more efficiently and more cost effectively than manufacturers, there is no reason for the relationship to exist (Rosenbloom, 2007). Disintermediation inevitably will occur.

Fingleton’s (1997) publication on “Competition between Intermediated and Direct Trade and the Timing of Disintermediation” studied the concept of intermediated trade and direct trade borrowing the concept of “bid-ask spread” from the finance discipline. The supply and demand in intermediated markets is modelled as a function of both the “bid” and “ask” prices, that is, intermediaries welfare cost is kept low so as to keep the total cost of the product competitive. With costs ever increasing and shareholders demanding better returns from their investments, intermediary’s welfare costs would be a decisive factor in the process of disintermediation. The concept may be easy to follow but the welfare cost components that make up the differences in prices between the “bid” and “ask” prices are not so easily defined nor the costs components static.

King (1999) postulated that the main drivers for disintermediation are where manufacturers attempt to derive higher profit margins from sales and to gain access to valuable information from customers. In a highly competitive industrial segment, companies are looking at all ways to reduce payments to distributors in order to achieve higher margins (McCubbrey & Taylor, 2005), no matter how small. Thus, disintermediating the distributors would allow the manufacturers to eliminate payments to distributors altogether and this could possibly achieve cost reduction. This would be a naïve assumption on the part of the manufacturers as there are still costs involved by the manufacturers servicing the customers directly even without the intervention of the distributor. Manufacturers can disintermediate their distributors but this does not mean that parts of the functions previously handled by the distributors are going to disappear altogether.

Berghel (2000) relates disintermediation to two mechanisms: Symbiotic Disintermediation and Predatory Disintermediation. Symbiotic disintermediation complements the existing business activities of the manufacturers to reach out to previously untapped markets. Predatory disintermediation adds value to establish direct contacts with customers. Naturally, it would be seen as a hostile action by the distributors and a cause of friction in the relationship. Neither symbiotic nor predatory strategies favour the distributors as they eventually lead to disintermediation, thereby threatening the very existence of distributors.
More recently, Sampson and Fawcett (2001) identified four motives for disintermediation: cost reduction; responding to competitors actions; improving value for customers efficiently; and forming new productive relationships which were not previously possible. Further, opportunistic behaviour on the part of manufacturers often displayed by contracts with inadequate contract compensation or not awarding longer-term contracts to distributors can lead to disintermediation (Rosetti and Choi, 2008). Could disintermediation be the ultimate outcome if manufacturers push distributors into accepting unreasonable conditions? This possibility exists and it could offer an explanation for disintermediation. Shunk et al. (2007) warn that disintermediation means that manufacturers have to replicate all the core competences of the distributors as well as all the information, material, knowledge, and cash flows of the supply chain channel. The manufacturer now effectively becomes the ‘distributor’ and faces a whole host of new supply related issues ranging from damaging the relationships with the previous distributors, having to create new customer services centers to replace those eliminated in the disintermediation process and struggle with low order sizes and arranging their own shipment to customers.

THE CHEMICAL INDUSTRY/PRODUCTS LIFE CYCLE

Every industry, business unit and product has life cycle characteristics which could accelerate the disintermediation process. An evaluation of the life cycle characteristics may offer some insights into disintermediation. The S-curve typically signifies how the life cycle of a product, business or industry progresses and evolves over time. The chemical industry and its products life cycle can also be represented in the S-curve. Chart 2 shows the four phases of industry/product life cycle and attractiveness factors for manufacturers, distributors and customers which was adapted from Sharman (2000). Mills and Camek (2004) also put forward a similar four-stage product life cycle of “Introduction”, “Growth”, “Maturity” and “Decline” much as Sharman (2000) did for the industrial equipment sector, and these characteristics are incorporated into Chart 1.

![Chart 1: Industry/Product Life Cycle and Attractiveness Factors](image)

*Source: Created by authors incorporating Sharman (2000) and Mills & Camek (2004) models.*
During the “Initial Phase” products are in demand in small volumes by a small segment of the market and much of the effort here is in dissemination of product documentation, getting product approved by companies and by the approving authorities (Mortelmans and Reniers, 2012). The growth rate at this stage is relatively low. At this stage chemical manufacturers will be expecting the distributors to provide significant information on the applications and about the customers. Risks are high and returns are low at this stage. This situation does not incentivise either manufacturers or distributors to invest much effort (Sharman, 2000).

In the “Growth phase” the products/industries are starting to show rewards as the applications and innovations pick up (Mortelmans and Reniers, 2012). The growth rate is the highest at this stage as shown in Chart 1. Higher demand will lead to economies of scale resulting in improved profit margins for manufacturers. Obviously, manufacturers and distributors interest in the product increases.

During the “Maturity phase” the growth rate starts to taper off as shown in Chart 1. Once the product/industry reaches the “Maturity phase” the manufacturers will still be able to sell large volumes of their products but the growth rate will slow. Manufacturers’ interest begins to dwindle at this phase. As products/industry are well established in this phase, less is required by way of customer information, marketing services and exclusive relationships from distributors to the point of not being needed at all (Mortelmans and Reniers, 2012). With lower growth in business both manufacturers and distributors will lose their enthusiasm, thus resulting in a decline in attractiveness for both parties.

At the end of the life cycle in the “Declining phase”, both manufacturers and distributors will start to lost interest as sales and margins decline. The “growth” and “maturity” phase are highly attractive phases. Neither party will be looking to disintermediate. The most likely phases where disintermediation could occur will be at either the “initial” or “declining” phases, probably more likely so at the “declining” phase than at the “initial” phase. At the “initial” phase even though the business maybe slow, both parties are probably willing to stick to each other for a longer period. In contrast, the “declining” phase would likely be the trigger for eventual disintermediation.

Proposed Disintermediation-Activity Matrix Framework

The literature review reveals that some form of disintermediation is inevitable. However, the evidence by way of manufacturers’ feedback and also from observations of the continuing strong growth by industry experts, it does not seem that chemical distributors will become extinct anytime soon. Steel (2009) forecasted that complete disintermediation is not something that will happen in the near future. The obvious gap in the literature is the lack of identification or prescription of specific methodologies or frameworks that could guide chemical manufacturers in the process of full or partial disintermediation from their distributors. It could be expected that some manufacturers will implement this on a trial-and-error basis and amend their strategy as they go along. This disorderly approach of disintermediating distributors could possibly tarnish the image of manufacturers, negatively contributing to a decline in market share. Needless to say, disintermediation through a carefully considered plan is necessary to minimize the risks.

This paper makes a contribution in plugging the gap in the literature by proposing a framework that could guide manufacturers in disintermediation. The paper draws from the expertise of the authors, particularly the lead author who holds a very senior position in a regional chemical distribution business and has been observing and researching the disintermediation phenomena (Tay and Chelliah, 2010) very closely over many years. Utilizing this knowledge and experience, the paper proposes a practical
framework for disintermediation which could be usefully implemented by chemical manufacturers. We call this framework Disintermediation Activity Matrix (DAM) framework (Chart 2) and is useful in the following ways:

- Exploring the feasibility of disintermediation;
- Where feasible (partial or full disintermediation), the formulation of an action plan; and
- The execution and monitoring of the action plan.

![Chart 2: Disintermediation Activity Matrix](image)

Source: Developed by Authors

DAM’s horizontal axis is ‘Disintermediation’ while the vertical axis is ‘Activity’. Each axis is divided into four zones i.e. ‘Very Easy’, ‘Easy’, ‘Not So Easy’ and ‘Not Easy at all’ and this applies to both the ‘Disintermediation’ and ‘Activity’ axes. DAM can be used to evaluate manufacturers’ distribution networks and direct supply businesses on a country, business unit or product basis. For example, where the current distributor acts as an indenting agent and the manufacturer accepts order directly from the customer, this is located at the ‘very easy’ sectors for both ‘Disintermediation’ and ‘Activity’. The manufacturer ships the goods directly to the customers, invoices them directly and collects payment from the customers. The activity is very easily accomplished by the manufacturer. Similarly, disintermediation is also ‘very easy’ as the manufacturer can service the customers without the presence of the distributor. Intuitively, the distributor will face disintermediation in this area of activity, if the manufacturer has not already done so. This area is located at the top left hand corner of Chart 2.

On the bottom right hand corner are activities that are considered ‘Not easy at all’ like importation of highly regulated products which require local import permits, storage permits, import licenses, just-in-time (JIT) deliveries, long payment terms, compounded products (mixtures of 2-3 products together), and vast cultural differences between exporter and importer countries. These activities are not easily
disintermediated as manufacturers may not be equipped to handle these activities and further they may not be able to perform it more efficiently than their distributors. In such situations manufacturers may want to hold back their disintermediation plans, even though they would like to do so early, until they are ready to do it. For manufacturers wishing to disintermediate their distributors in relation to these activities, they need to seriously consider all the implications thoroughly before they act on it.

Whilst DAM is useful in guiding disintermediation decision making, it must be acknowledged that supply channels in the real world may not neatly fit under the categories in the DAM. For example, between the two extremes (‘very easy’ to ‘not easy at all’) there may be variations of activities being performed at differing levels of complexity. The decision to disintermediate or otherwise is one which manufacturers will have to determine based on the appropriateness for a specific variation. Certain activities in these two categories may be “easy” for the manufacturers to take over. There may be activities that are “not so easy” for manufacturers to take over, but they could do so if they are willing and able to develop their downstream distribution network. A tool such as DAM allows manufacturers to systematically analyze the various situations and then come to a logical decision as to what would:
- enhance their distribution network;
- give better market coverage; and
- generate higher returns for the company.

**CONCLUSION**

The proposed DAM presents a holistic view of the intermediated roles for the chemical industry. Ideally this can offer to the players in the chemical industry a useful tool for them to systematically evaluate the market situations and positions to determine their future strategies. DAM is also flexible enough to be adapted for other industries as well and not applicable just for the chemical industry. The finer details on the various variables may differ from each industry but the DAM model should be robust enough to withstand the scrutiny through practical applications.

**REFERENCES**


