



VIRGO

PERSPECTIVES FROM A CHEMICALS EXECUTIVE: VALUE OF A GROWTH CAPITAL PARTNER

OCTOBER 1ST, 2019

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DISRUPTION IS NOW THE NEW NORMAL

AGENDA

- Digital Transformation
- Innovation
- Impacts of the China–U.S. Trade Dispute
- Expected Slowdown in the Overall U.S. Economy
- The Value of a Growth Capital Partner

DIGITAL TRANSFORMATION

PROCUREMENT / SUPPLY CHAIN

- Past: often intransparent and under-supervised
- Stronger focus on other parts of a company
- Realization with respect to the value of cost leadership
- Digital transformation offers unique opportunities to streamline procurement steps
- Key suppliers can be made aware of trends to improve their product offering
- AI and IoT will further enhance and optimize procurement processes such as RFP, platform trading, just-in-time delivery, etc.

DIGITAL TRANSFORMATION

R&D AND PRODUCTION

- Already advanced with regards to AI and IoT adoption
- Multiple areas, such as developing new and improved chemical formulations, will gain speed
- Long-term quality and time to market can be significantly improved
- Process controls and optimization can be further enhanced through the support of digital transformation
- Costs and environmental impact can be substantially reduced

DIGITAL TRANSFORMATION

FINANCE & ADMISTRATION

- Digital transformation has already covered a large portion of the finance and administration area
- Even though it's some of the largest CapEx items for a company, it's also an area with the least resistance towards digital transformation
- Further cost improvements and better yields to the bottom line should be the result

DIGITAL TRANSFORMATION

SALES & MARKETING

- Yet another area that has already seen a good amount of digital transformation
- Most notably in terms of CRM and e-commerce tools
- Challenge: only a smaller number of SME's have embraced digitalization
- Corporate culture/behavior and leadership acceptance of increased transparency are key success factors

INNOVATION

THERE IS A HISTORY/TRADITION OF INNOVATION WITHIN THE CHEMICAL INDUSTRY, WITH A FOCUS ON PRODUCT INNOVATION AND PROCESS INNOVATION

- Speed of innovation between 1950's and 1970's was very high
- Constant flow of new products and new processes to produce better products faster
- Since the 1980s, the speed of innovation has slowed down
- In particular, larger chemical companies turned their focus to emerging markets
- Increasingly, returns from emerging-market businesses have outpaced the earnings generation capabilities of new products and processes requiring cost-intensive/extensive R&D

INNOVATION

TURNING POINT: 2008 GLOBAL FINANCIAL CRISIS

- More and more, the chemical industry shares in the volatility of other economies around the world
- Cyclical industries (e.g., the polymer industry) have become harder to predict, and even the specialty chemicals segment is facing disruptive elements that can threaten the existence of businesses almost instantaneously
- Majority of new innovations come from outside the chemical industry, oftentimes the off-spring of university research programs, paired with venture/growth capital funding
- Large chemical players now invest in start-ups, outside of their regular R&D facilities and/or spin-off product groups/businesses not considered core, to yield earnings

INNOVATION

BUSINESS MODEL INNOVATION

- The changes and volatility in past years have led chemical businesses to re-evaluate their business models
- Legacy business models are predominantly based on cost-plus or value-based methodologies
- Chemical companies are now looking at new models such as outcome-based, risk-sharing with customers in implementing new materials and products
- Creating partnerships or ecosystems will increase differentiation, reducing the negative commodity effect, and subsequently improving margins

IMPACTS OF THE CHINA – US TRADE DISPUTE

GENUINE IMPACTS OF THE TRADE DISPUTES FOR THE CHEMICAL INDUSTRY

- \$ 15 billion impact on imported chemicals & plastics from China*
- \$ 11 billion on U.S. exports of chemicals & plastics to China*
- The ACC has stated, if this becomes a war of attrition, it has the potential to last for years, only doing more harm than good for both sides*
- The positive intention is to level the playing field from a global perspective
- Nevertheless, someone (namely, consumers) will have to pay for the \$15 billion and \$11 billion, which will have impacts on U.S. chemical manufacturers and their competitive capabilities.

*According to C&EN News as of 8/26/2019

IMPACTS OF THE CHINA – US TRADE DISPUTE

POTENTIAL POSTIVES

- U.S. chemical manufacturers have taken precautionary measures and added in the costs of the tariffs with notifications regarding potential credit notes, should an agreement be reached
- Many companies have switched their supply focus, from China to India or Europe; however, pricing and capacity constraints have diminished the success of this move, given the sheer volume of capacity erected in Chinese chemical manufacturing over the past few decades
- Subsequently re-establishing U.S. chemical manufacturing capacity, in conjunction with the abundant availability of energy (based upon shale gas and downstream raw materials), makes for a compelling story

IMPACTS OF THE CHINA – US TRADE DISPUTE

THE RENAISSANCE OF U.S. CHEMICAL MANUFACTURING

- Today, U.S. chemicals & plastics manufacturing accounts for over four million jobs and more than 25% of U.S. GDP
- According to the ACC, there are currently 334 projects announced, with accumulated \$200 billion of value, 50% completed/underway and 40% in the planning phase
- Although the majority of these projects are upstream in basic chemicals or polymers (inorganic chemicals, petro chemicals, plastic resins, etc.), a substantial portion lies within specialty chemicals, growing in-line with industrial sectors at 2% or more per year
- Even if there were to be an agreement on tariffs between China and the U.S., the chemicals industry seems to be confident about further investment

EXPECTED SLOWDOWN IN THE OVER US ECONOMY

IS U.S. ECONOMIC GROWTH COMING TO AN END AFTER 10 CONSECUTIVE YEARS OF EXPANSION?

- U.S. GDP, according to the Fed, will slow down: 2.1% in 2019, 2% in 2020, and 1.8% in 2021
- However, the U.S. manufacturing industry is expected to grow above GDP. The MAPI Foundation says increased capital growth and higher exports will boost manufacturing in coming years: 3.9% in 2019, 2.4% in 2020, and 1.9% in 2021
- The bottomline: the overall U.S. manufacturing industry is bullish about its outlook and expected performance, taking a certain degree of slowdown into consideration, but still considering this to be a good investment from a growth and returns perspective – in spite of the uncertainty the trade dispute creates

THE VALUE OF A GROWTH CAPITAL PARTNER

LEADING AND MANAGING THROUGH BUSINESS TRANSITIONS DEMANDS A HOLISTIC APPROACH AND A GROWTH CAPITAL PARTNER

- The landscape of specialty chemicals has changed – however, the fundamentals for success remain
- Creating new business opportunities, whether new products, molecules, or new processes of commercialization, has not changed at its core
- Understanding and analyzing business opportunities from a holistic perspective remains key to building successful, sustainable businesses for all key stakeholders

THE VALUE OF A GROWTH CAPITAL PARTNER

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A growth capital partner can genuinely support achieving these goals:

- ... by leveraging a team's experience
- ... by further enhancing its growth-centric perspective
- ... by nourishing a team's creativity to help companies navigating these business opportunities



THANK FOR YOUR ATTENTION!

I LOOK FORWARD TO SPEAKING WITH YOU
ABOUT YOUR OPPORTUNITIES!

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