THE NEXT INDUSTRIAL REVOLUTION

HOW E-COMMERCE IS TRANSFORMING B2B

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How e-commerce is transforming B2B

A DHL Express White Paper by
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PREFACE

Over the last two decades, the face of retail has been dramatically changed by the internet and the emergence of new digital technologies. Electronic commerce has brought new standards of customer service, convenience and choice for the consumer. For retailers, it has opened up new opportunities to make their operations more efficient, to better understand their customers and to target new customer segments around the world. It has allowed any business, however small, to go global overnight and to enjoy growth rates that are among the highest of any industry segment.

We at DHL Express have also seen our business change as a result of the e-commerce phenomenon. Our rapid global expansion since 1969 was fuelled in the main part by business-to-business customers, whether this was banks expanding to provide the financing mechanisms for international trade, oil and gas multinationals taking their expertise and technologies to new fields overseas, or technology companies sourcing components via a global supply chain. Banking, energy and technology, as well as life sciences and automotive, have traditionally been significant verticals for our business, accounting for a large share of our revenue. However, over the last five years, we have seen a significant proportion of our growth coming from businesses selling direct to consumers. This has included major e-commerce platforms, as well as major retailers of premium fashion and technology goods, but also small businesses and entrepreneurs trading niche products to customers overseas. B2C has grown from around 10% of our volumes in 2013 to more than 20% today.

At the same time, we have recently seen the emergence of another phenomenon. More and more of our traditional B2B customer base – whether in search of new business opportunities or as a response to competitive forces – have begun to increase their online presence, their use of digital tools and the adoption of practices typically employed by B2C e-commerce players. We are beginning to see, for example, large industrials trying to transact with suppliers and customers exclusively via digital platforms, and small, niche manufacturers of engineering components receiving ad hoc orders from private hobbyists who have found them online. In all cases, the B2B companies are being forced also to adapt their supply chains to respond faster and more flexibly to the opportunities that are arising. Learning more about this new trend was the inspiration for this white paper that you are reading today.

We are very grateful to Professor Michael Bourlakis, Dr Denyse Julien and Imran Ali of Cranfield School of Management's Centre for Logistics and Supply Chain Management for contributing their expertse to authoring this white paper and providing fresh insights into how B2B companies are taking advantage of e-commerce. We hope that this paper can provide B2B companies with a better understanding of how far they have taken their own customers on the e-commerce journey and food for thought on how they can benefit from this next industrial revolution. And of course, we are on standby to help these B2B e-commerce companies make their supply chains more flexible, get their products to market even faster and reach new customers throughout the world.

Best regards,

John Pearson
CEO, DHL Express Europe

1. INTRODUCTION

Forrester Research estimates that cross-border B2B e-commerce transactions will reach US $1.2 trillion by 2021.[1] With the advent of the internet and digitalization, the opportunity for companies to boost revenues by tapping global markets and to drive down costs through greater efficiency has also opened up new prospects for earnings growth. This huge potential is forcing B2B companies to adapt their supply chains to be more like a business-to-consumer (B2C) channel i.e. flexible, agile, scalable, quicker, mobile and global. More significantly, digitally-aware B2B customers are expecting 'Amazon-like' experiences including seamless commercial transactions when buying, receiving and returning products.[2] Businesses have shifted their purchasing research and transaction activities towards online[3] especially when customer expectations for a full spectrum of services and support that are hosted online have continued to increase.[4] Despite these customer expectations, there are fundamental differences between B2B and B2C commercial transactions which need to be understood and managed. Some of those are presented below:

1. In B2B, the sale takes place between two business entities while in B2C, goods and services are sold to a customer for their personal use.[5]

2. In B2B, the decision and approval process is complex and lengthy, involving the input of technical, financial and operational departments while in B2C the decision is made by a single customer.[6]

3. In B2B, the size, value and frequency of transactions are large and high while in B2C, they are smaller and often one-off, although repeat purchases are also a feature of particular products and retailers.[6]

4. In B2B, the terms and pricing are customer-specific. which reflects customer relationships while in B2C it is most likely to be fixed.[6]

5. The relationship horizon in B2B is long-term while in B2C, for many products, it can be short-term.[6]

6. In B2B, payment is in the form of credit sales while in B2C it usually involves direct sales without any credit being accumulated.[7]

7. In B2B, product assortment and catalogs are customized with unique segmentation to meet each business customer's requirements while in B2C it's generally the same for all.[8]

This white paper will illustrate numerous developments in relation to the emergence of B2B cross-border e-commerce and provide guidance on how a B2B company can successfully expand its e-commerce positioning. The next two sections will show the B2B customer journey and the key barriers and challenges involved. Next, three archetypes will be presented, representing different levels of e-commerce maturity, followed by examples of various B2B e-commerce companies. The last section will highlight specific practical recommendations which can be taken up by companies to capitalize on the B2B e-commerce opportunity.

2. B2B CUSTOMER JOURNEY FEATURES

The major features of B2B e-commerce platforms impacting on the customer journey have been grouped into five categories (Figure 1). To shed light on these categories (and the other key issues under examination), the research team conducted extensive desktop research analyzing numerous secondary data sources including company and trade reports, research and consulting reports, articles published in company websites and in business periodicals. This material was supported by primary, qualitative data. Specifically, in-depth interviews were conducted with senior managers from a global express logistics company and a leading logistics association. Both primary and secondary data were analyzed by the research team. A major finding was the identification of the key trends and technologies which drive increasing levels of sophistication in the functionality of e-commerce platforms. Leading companies focus on customer experience and flawless execution. This drives value for the customer, and increased profitability through higher market share and operational excellence in the supply chain. The five core categories are outlined below. The customer journey starts with digital infrastructure and the remaining categories appear as the main building blocks without any specific sequential ranking.

FIGURE 1
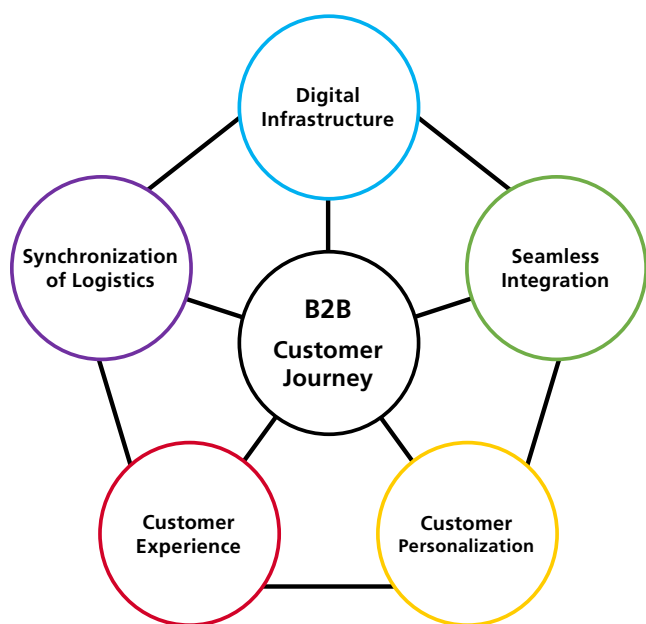
DIGITAL INFRASTRUCTURE

The development of a B2B e-commerce platform must take into account the typical customer journey and incorporate functionality and technologies that enhance customer experience.

In B2B, digital connectivity must encompass the end-to-end business processes. Here, a digitalization of the product catalog and the inclusion of a 'simple to use and powerful' search engine are viewed as necessary. Additional features such as; mobile/tablet-enabled connectivity, good data protection and secure online payments have become standard expectations for most users of e-commerce platforms, including those offered by B2B companies. The most sophisticated B2B providers also drive real value for their businesses and customers by incorporating technologies such as artificial intelligence, machine learning algorithms, big data analytics and business intelligence insights. These technologies allow the streamlining of internal and external business processes and improve the accuracy of demand planning and forecasting. One final important difference observed within leading B2B providers is the integration of the cloud-based e-commerce platform with their Enterprise Resource Planning (ERP) and operational systems. This integration facilitates better real-time visibility and alignment across the supply chain. As a result of these enhancements, it can become easier for B2B companies to exploit new business opportunities, including capturing 'difficult to reach low-volume customers.'[9]

CUSTOMER EXPERIENCE

Based on their experiences as a private consumer, more and more customers are expecting an 'Amazon like' shopping experience from B2B companies with an e-commerce offering i.e. simple, flexible and convenient. For organizations at the early stage of the B2B e-commerce platform implementation, the provision of a simple but effective on-site search engine is essential to enable the customer to view the products on offer. As we move to more sophisticated B2B players, we observe a comprehensive suite of tools available to help the customer to navigate the site and find detailed information about the products, including mega menus, video libraries, website tutorials and competitor comparisons. Some e-commerce platforms incorporate live online support to assist with any queries or issues which can lead to improved conversion levels and facilitate buying decisions. Research by Gartner has shown that more focus on information systems (IS) and online support results in increased customer satisfaction.[10] This research also evaluated customer satisfaction on the basis of efficiency, technology and budgetary guidelines; the collective perception of customer satisfaction is depicted in Figure 2.
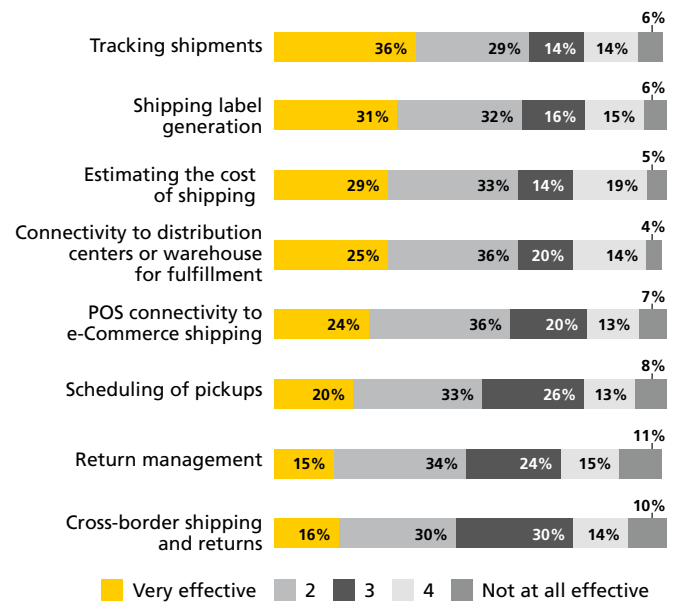
CUSTOMER PERSONALIZATION

Customer personalization is a growing trend in B2B cross-border e-commerce companies.

Customers want personalized solutions and B2B e-commerce companies are offering those via a customer portal with content organized around a number of parameters: past purchase history, price optimization algorithms that meet customized product price requirements, configure-price-quote (CPQ) software to make online quotes and prices that are adjusted on the basis of the relationship. Some examples of price optimization and configure-price-quote softwares are Vendavo[11], Navetti[12], JDA[13] and Oracle[14].

Most advanced B2B companies use the latest technologies from their platform to combine knowledge from both human and machine in order to identify patterns of human behavior. This moves them into the Cognitive

FIGURE 2:
CUSTOMER SATISFACTION BY GARTNER

	Very effective	2	3	4	Not at all effective
Tracking shipments	36%	29%	14%	14%	6%
Shipping label generation	31%	32%	16%	15%	6%
Estimating the cost of shipping	29%	33%	14%	19%	5%
Connectivity to distribution centers or warehouse for fulfillment	25%	36%	20%	14%	4%
POS connectivity to e-Commerce shipping	24%	36%	20%	13%	7%
Scheduling of pickups	20%	33%	26%	13%	8%
Return management	15%	34%	24%	15%	11%
Cross-border shipping and returns	16%	30%	30%	14%	10%

Source: [11]

Commerce space where the platform is able to predict and anticipate future behaviors of customers and apply that to personalize the experience of specific customers. IBM Watson[15] and Cognitive scale[16] are some indicative examples of cognitive commerce platforms with wider application across sectors.

In many instances, buyers can also customize the final configuration of purchased products but this customization can cover the packaging, handling and loading of products.

Customer Relationship Management (CRM) systems can deliver dynamic pricing and support customers by offering commercial credit. Finally, B2B e-commerce platforms can improve customer satisfaction and retention by providing clarity around the potential hidden costs to the transaction such as taxes and customs. 21st century customers are looking to source globally and B2B e-commerce platforms must be able to handle payment in any currency whilst the smooth integration of front and back office business processes facilitates the B2B customer journey.

SEAMLESS INTEGRATION

The right mix of tools in B2B e-commerce is needed to deliver a seamless integration. This integration is mostly done through B2B omni-channel commerce which is a multi-channel sales approach i.e. combining online, bricks and mortar store, tablet and/or smartphone options.[17] This seamless integration increases customer engagement and helps B2B companies to amplify their business goals and targets by reaching business customers globally.[18]

Web rooming is another interesting customer behavior that most B2B customers are practicing and it is generally called ROBO (Research Online Buy Offline). The different touch points with the customer need to be managed so that the overall customer experience right through to the final purchase is seamless irrespective of the channel used.

To ensure a truly seamless end-to-end process, B2B companies have to improve the delivery and collection options for their customers. Based on the experience of the B2C sector, there is also clear recognition that the customer experience can be damaged by poor management of the last-mile delivery process. B2B companies are therefore investing to ensure that the final touch point with the customer is also a positive one. One example of approaches taken is the introduction of solutions such as 'Click & Collect'.

SYNCHRONIZATION OF LOGISTICS

As mentioned in the last section, logistics will play a critical role in any B2B cross-border e-commerce offering. This is not just about last-mile delivery, but also the overall fulfillment strategy.[19] Business customers want speed, reliability, traceability and convenience in delivery, supported by an effective returns and exchange policy for damaged items/products.[20]

To increase their competitiveness and address different customer requirements, B2B companies with an e-commerce offering can emulate the strategy of online retail platforms by providing multiple transport and delivery

options, dependent on respective cost, transit time and/or service requirements. Thanks to integration with the systems of transport providers, customers can select their preferred solution with full visibility of the costs involved.

Additionally, simply making your product offering available on the internet can open up your potential marketplace to include customers from anywhere in the world. Building into your supply chain the capability to serve even ad hoc or latent demand (for example, by shipping non-consolidated shipments on a door-to-door basis to overseas markets where the company does not have an established distribution network) can help businesses to tap into potential new revenue streams.

Synchronization of logistics operations in a cross-border context can be adopted as an add-on service, such as an application to be hosted on a B2B company's e-commerce website. The application provides secure and simpler transactions to B2B customers whilst an integration of e-commerce with technologies and systems such as ERP and CRM facilitates an end to end connectivity with the selling process. Research by Forrester identified that most companies in Canada use e-commerce effectively by providing end-to-end shipping/logistics solutions. (Figure 3).[20] Hence, these technologies and applications are vital in today's competitive world, enabling B2B companies to offer end-to-end, cross-border solutions with the flexibility to meet diverse and changing customer demands. Leading B2B companies understand customers' journeys and place high value on customer experiences which are not limited to the e-commerce front end platform. Therefore, a significant aspect in any successful cross-border B2B e-commerce offering is ensuring the operational excellence to manage physical movements in the end-to-end supply chain, i.e. from the origin to the customer site. Efficient, effective logistics are critical to a successful e-commerce offering.

FIGURE 3:
E-COMMERCE AND SHIPPING INTEGRATION BY FORRESTER

Overall Satisfaction Scores (Mean = 3.19)
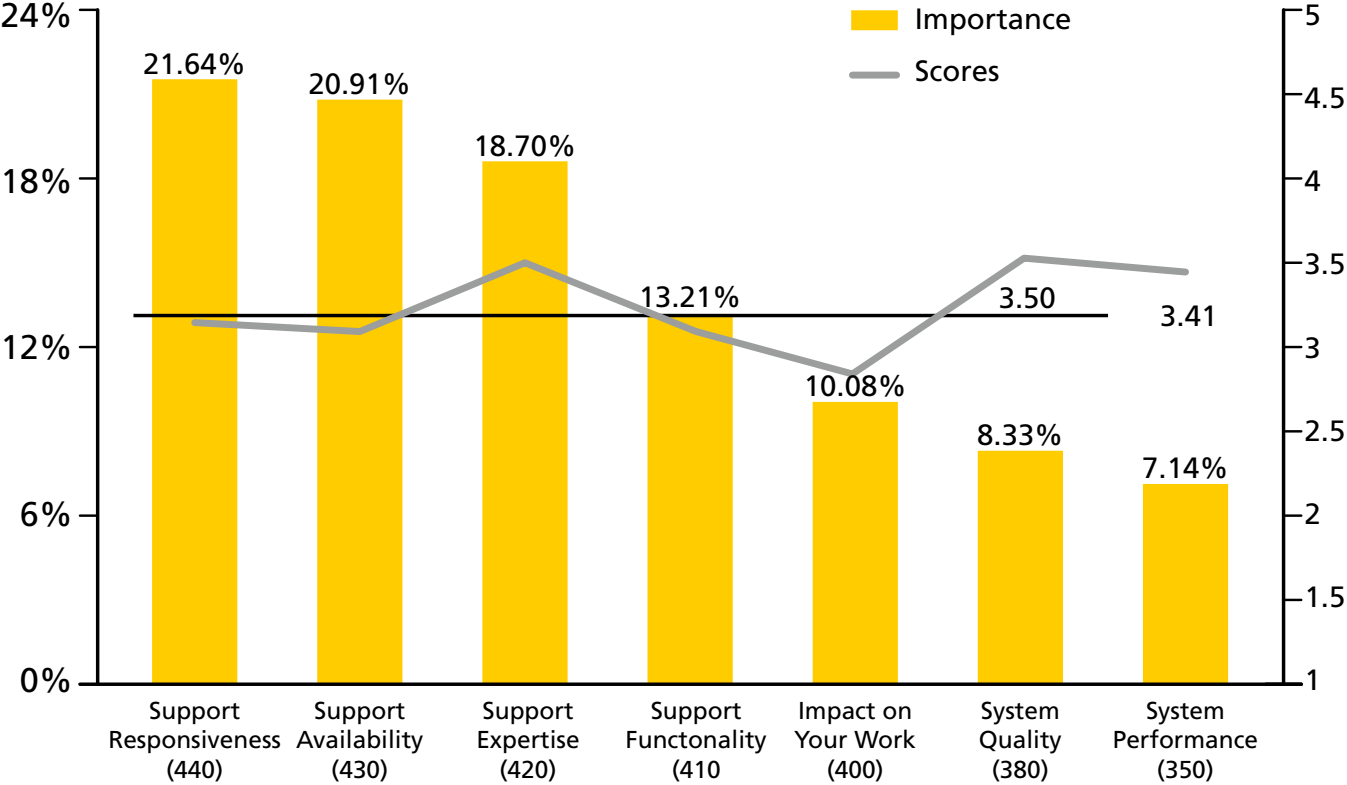
Source: [21]

3. MAJOR BARRIERS & CHALLENGES

The key barriers and challenges influencing B2B e-commerce growth were identified by supply chain experts during interviews (see Appendix for the interviewees) including:

- Exchange rates, customs and duties and less developed infrastructures can be challenging to deal with especially when operating outside Europe. Supply chains will need to adjust in the future considering that they will be more information and data-driven and less based on physical activities.

- Transport networks will need to be agile to accommodate new logistics demands and pressure to offer increased customer satisfaction.

- New skills from employees will be urgently required (e.g. IT-related, supply chain analytics etc.) to accommodate this changing business and supply chain landscape. Business mindset, mentality and culture will need to change and adjust to the new supply chain dynamics.

- It will be challenging for every sector operating in the new B2B e-commerce environment. Some sectors (e.g. fashion, apparel) will adapt quicker whilst it will take longer for others (e.g. pharmaceutical).

- It will be also challenging for large companies with well-established B2B platforms to compete with agile, start-up companies. They could fall behind and will need to react fast to competition by these entrants, while not putting profitable legacy business at risk.

4. ARCHETYPES OF B2B COMPANIES

E-commerce is being adopted by B2B companies from various sectors (e.g. manufacturing, plumbing, steel, luxury fashion). To understand the application of B2B cross-border e-commerce, the research team identified three different archetypes (Figure 4) aiming to capture different B2B e-commerce development levels witnessed in the marketplace. Initially, there are companies starting out on the journey to develop their B2B offering. These are followed by companies which are becoming more experienced in e-commerce and embracing more comprehensive offerings. Finally, we have innovative companies which have developed and leveraged technology to drive unique value propositions in the marketplace. It is possible to find companies at various levels with slightly different combinations of features; these archetypes are presented to indicate the scope and diversity that exists and to help B2B companies better understand their own level of e-commerce maturity.

The most basic level is 'Novice.' This represents companies that have taken their first steps in adopting e-commerce technology and capabilities. They typically have very limited functionality embedded on their platform and may also be using legacy systems to support an online offering (which could be difficult to scale and leave them exposed to competition from newer, more agile entrants). They may still be at an experimental phase, building the understanding of where their business can benefit from e-commerce technologies. They are also most likely to see a large proportion of interest from cross-border customers coming in the form of speculative enquiries and ad hoc orders.

'Intermediate' companies have recognized the critical role of customer experience, personalization and seamless integration. However, they have not created fully integrated front and back office systems to enable them to improve the operational efficiency in their operations. So, they are offering an enhanced customer experience as compared to the 'Novice' level and embracing more features and functions within their business, also at a higher level of investment.

At the 'Innovator' level, companies have clearly defined their digital strategy, their business model and their value proposition. They have invested in an e-commerce platform and in an end-to-end integration with ERP and operational systems to allow them to achieve excellence in business operations. Their digital strategy also encompasses the use of many new technologies such as Artificial Intelligence (AI) and machine learning. These technologies support the provision of unique value-adding services to customers while simultaneously decreasing costs in the supply chain. A brief outline of the common features identified from the research is provided in Table 2. These are mapped onto the three archetypes and are also color coded to align them to the customer journey features (from Figure 1).
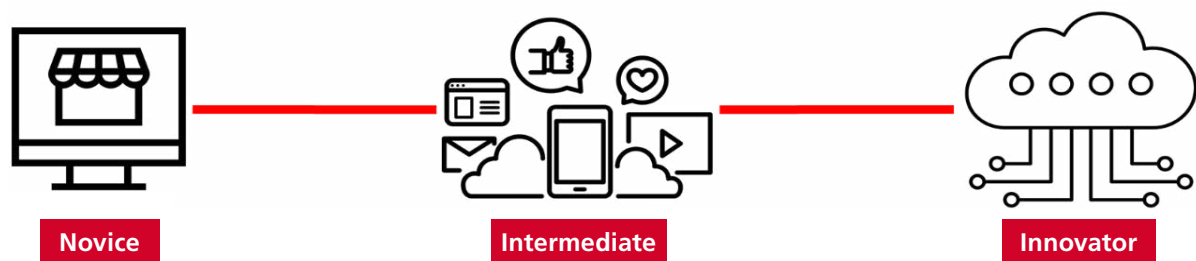
FIGURE 4
ARCHETYPES OF B2B COMPANIES

Novice   Intermediate   Innovator

TABLE 2
B2B ARCHETYPES

Key Features	Novice	Intermediate	Innovator
e-procurement portal	✖	✔	★
Customized portal functionality for key customers		✔	★
Machine learning			★
Artificial Intelligence			★
Virtual Reality functionality			★
Cloud technologies			★
Search Engine Optimization (SEO)		✔	★
Data analytics functionality embedded			★
Business intelligence mining			★
Mobile/Tablet-enabled website	✖	✔	★
Automation of activities			★
Data protection and security	✖	✔	★
Secure online payment system	✖	✔	★
Integration of platform with ERP systems		✔	★
Integration of platform with operations systems		✔	★
Active presence on social media		✔	★
Scalable platform			★
Simple & powerful search engine on website	✖	✔	★
Online interactive support team		✔	★
Mega menus			★
Website usage tutorials			★
Video libraries			★
Detailed product catalogs with categories	✖	✔	★
Competitor Cross Reference			★
Real-time stock availability check		✔	★
Reorder processing with effective inventory management		✔	★
Real-time/online tracking and visibility of shipments			★

Key Features	Novice	Intermediate	Innovator
Customer Relationship Management (CRM) features		✓	★
Product customization		✓	★
Online Bills of Material (BOM)			★
Favorites/Frequently purchased list	✗	✓	★
Intelligent cross selling options			★
Price transparency & immediacy		✓	★
Price optimization			★
Configure-price quote (CPQ)			★
Dynamic pricing			★
Commercial credit		✓	★
Taxes and customs calculation		✓	★
Foreign currency payments accepted		✓	★
Omni-channel touch points managed			★
Web rooming (look online buy in store)		✓	★
Seamless Integration		✓	★
Click and collect options		✓	★
Ship from store options		✓	★
Focus on last-mile delivery to customer			★
Focus on the customer experience			★
Shipping options	✗	✓	★
Quotation services for transport alternatives	✗	✓	★
Delivery windows options			★
Cross-border shipping management			★
Flexible returns and cancellation policy	✗	✓	★
Loss and damage protection	✗	✓	★

■ = Digital Infrastructure   ■ = Customer Personalization   ■ = Synchronization of Logistics

■ = Customer Experience   ■ = Seamless Integration

In order to elaborate on the application and relevance of these three archetypes, we have identified seven B2B companies that are active in cross-border e-commerce. A brief description of these companies, with their sector-specific market presence and the prominent e-commerce features that they have adopted, with the potential to add value to customers, is below.

W.W. GRAINGER

W.W. Grainger Inc.[21] is one of the first B2B companies to develop an extensive e-commerce offering in the United States. Its main operation is focused on industrial supplies. The total e-commerce sales of W.W. Grainger in 2016 were US $4.7 billion.[22] Its key customers are multinational companies, the manufacturing/support industries and industrial wholesalers. Some of the prominent e-commerce features adopted by the company include Search Engine Optimization (SEO), on-site search, competitor cross reference, detailed product catalogs, omni-channel and a customer e-portal for personalized content. Other e-commerce features include real-time stock availability tracking, web-rooming, worldwide shipping with standard and express options, tax and customs calculation, loss and damage protection and an online customer support team.

MSC

The MSC[23] industrial supply company is a B2B company with an e-commerce platform in the United States with operations all over the world. The total e-commerce sales of MSC in 2017 were US $450.8 million.[24] Its key customers are multinational companies, maintenance companies, the manufacturing/support industries, engineering companies and industrial wholesalers. Some of the prominent e-commerce features adopted by the company include on-site search, detailed product catalogs with high quality product images and descriptions, a customer e-portal for personalized content, omni-channel services, real-time stock availability tracking, web-rooming, and standard and express shipping options to the USA, Canada and Mexico.

FERGUSON

Ferguson plc[25] is an innovative, modern and professional B2B company active in e-commerce with headquarters in Switzerland. Its main business is plumbing supplies. One of the main reasons for its success is its product-specific focus on content. Its e-commerce website is professionally designed to target specific groups such as builders, mechanics, plumbers and facility supplies. The e-commerce sales of Ferguson plc in 2017 were US $3 billion.[26] Its key customers include construction, building supplies and plumbing wholesalers. Some of the prominent e-commerce features adopted by the company include on-site search, mega menus, website usage tutorials, video libraries, detailed product catalogs with a special focus on content, an interactive customer support team, an active presence on social media and a customer e-portal for personalized content. Other e-commerce features include omni-channel, real-time stock availability tracking, web-rooming, reorder processing, multiple shipping options, commercial credit, quotation services, tax and customs calculation, and an effective returns and cancellation policy.

INTERNATIONAL HAAS AUTOMATION

International Haas Automation Inc.[27] is a B2B company with an e-commerce offering in the United States with a worldwide supplies operation. It is an innovative CNC (Computer Numerical Control) manufacturing company making state-of-the-art big machine tools such as lathe, taper, mould, drill mill etc. The revenues of International Haas Automation Inc. in 2017 were US $311.5 million.[28] Its key customers are dealers and wholesalers of big machine tools. Some of the prominent e-commerce features adopted by the company include on-site search, video libraries, detailed product catalogs, a customer e-portal for personalized content, omni-channel services, real-time stock availability tracking, web-rooming, shipping options, quotation services, tax and customs calculation and an interactive customer support team.

KLÖCKNER & CO.

Klöckner & Co.[29] is a B2B company in Germany with worldwide supplies and a growing e-commerce focus. It is a steel and metal company providing innovative metal solutions. Klöckner & Co. group online sales in 2016 were € 5.7 billion.[30] Its key customers are multinational manufacturing companies, dealers and wholesalers of steel and metal products. Some of the prominent e-commerce features adopted by the company include on-site search, detailed product catalogs, a customer e-portal for personalized content, omni-channel services, real-time stock availability tracking, web-rooming and quotation services.

KRONES GROUP

The Krones Group[31] is a B2B company with an e-commerce offering, headquartered in Germany. It is a manufacturing company that produces machines and parts/components for the process, filling and packaging industries. The net sales of Krones Group in 2016 was €3.391 million.[32] Key customers are from industries such as automation, sealing, bearing, process and wholesalers. Some of the prominent e-commerce features adopted by the company include on-site search, detailed product catalogs, a customer e-portal for personalized content, facilities to display and update complex, customized bills of materials at the touch of a button and a content management facility that merges product content and master data from different channels. Other e-commerce features include omni-channel services, real-time stock availability tracking, web-rooming, reorder processing, shipping options, automated quotation tools, tax and customs calculation, an effective returns and cancellation policy and a customer support team

VAN DE VELDE

Van de Velde is a leading designer and manufacturer in the fashion sector with luxury and fashionable women's lingerie. Its headquarters are in Belgium. In 2017, its annual revenues were €208.6 million.[33] It recently opened its first e-commerce website for its owned brand Rigby & Peller[34]. Its key customers are luxury fashion industry distributors and retailers. Some of the prominent e-commerce features adopted by the company include on-site search, detailed product catalogs, high quality product images and descriptions, omni-channel services, multi-currency and multi-language facilities, web-rooming, shipping options, an effective returns and cancellation policy and a customer support team

5. PRACTICAL RECOMMENDATIONS

Investment in the digital transformation of B2B cross-border e-commerce businesses will continue to play an increasingly important role in the evolving and highly competitive world of business. B2B cross-border e-commerce can only be implemented successfully by streamlining culture, processes and technology.[35] This will enable a digitally enabled sales force and omni-channel commerce approach to enhance the prospects for cross-border sales and to reshape the future of B2B. Many of those issues are analyzed below incorporating relevant material from secondary data sources and thoughts expressed from the interviewees. Therefore, to drive a B2B cross-border e-commerce digital transformation, B2B business leaders should aim for:

- **Seamless Integration:** This is achieved with the right mix of tools for integration i.e. omni-channel. Omni-channel is a sales approach driven by consumer demand for enhanced convenience and shopping experience. Considering its large growth within the B2C market over the past few years, omni-channel is expected to place significant stress on how supply chain managers manage logistics to meet the cross-border sales requirements of their businesses. Managers working for B2B cross-border e-commerce companies should consider the agile, customer-focused supply chain strategies followed by successful omni-channel operators such as the major retailers.

- **Digital Infrastructure Readiness:** An integrated, flexible and scalable e-commerce infrastructure is of paramount importance for cross-border business today.[36] The integration of front and back offices must be done in a unified way as this has a great impact on the demand-driven customer proximity that is expected to have an impact on the overall supply chain.

- **Client-based Customization:** A focus on customization to meet complicated and unique requirements (e.g. price negotiation, configure-price-quote [CPQ], complex product navigation, complex product customization etc.) All these are sales processes that need to be supported with effective calculation algorithms across channels.

- **Customer Experience / Customer Service:** Digital transformation to a B2B e-commerce business requires drastic changes including: top management interest, collaboration of business processes and having the right mindset and culture across the business/organization. An effective implementation results in simple, flexible and convenient business processes for improving customer experience. It also combines the best of human and machines, working in tandem to deliver personalized service, via online customer support and machine learning techniques to better anticipate customer needs. Customer service will be a key differentiator for B2B e-commerce companies, supporting a company's brand.

- **Business Intelligence:** B2B sales data could be of enormous potential for transforming businesses which are growing in volume, velocity and variety at an unprecedented speed. These data could be tapped by using business intelligence tools. These tools transform data into visualizations to help gain deeper customer insights for specific product demand and on products sold etc. This information will help to refine the direction for B2B businesses.

- **Synchronization of Logistics Operations:** Synchronization of logistics operations is critical for success in cross-border B2B e-commerce. Business customers want speed, reliability, traceability and convenience in delivery with an effective product returns and exchange policy for damaged items/products. Technology solutions nowadays provide orchestration with the add-on service or an application that is to be hosted on a B2B e-commerce website. The open standard in these applications facilitates information exchange that can enable real-time visibility for a seamless integration across supply chain stakeholders. For those companies looking to build flexibility into their networks to either address ad hoc demand or differentiate based on a faster speed to

market, international express logistics companies or integrators can also support B2B companies with direct and rapid door-to-door access to overseas markets even for smaller batch volumes, providing better conversion rates of latent demand and the opportunity to differentiate with a premium service offering. They also provide a number of additional indirect benefits related to an e-commerce offering, such as:

- Providing credibility and building trust for transactions between companies involved in that supply chain.

- Minimizing possible financial risks by enablng more reliable, safer payments systems including tracking and tracing of products.

- Offering a global network of local partners and consultants with the expertise and local knowledge to support companies in understanding the specifics of targeting overseas customers and navigating across borders.

The aspects mentioned above will guide 'Novice' level B2B companies as they start the e-commerce customer journey. Carefully designed, flexible digital infrastructure appears to be the basis of any B2B e-commerce company. Some of the key features that almost all B2B customers expect even from a 'Novice' level B2B company are personalized content, transparent pricing, interactive and detailed product content, buyer convenience in terms of buying process from multiple touch points and e-commerce automation (i.e. automatic reordering for repetitive purchases). These basic features will enable a smooth start for 'Novice' level B2B companies.

'Intermediate' level B2B companies should typically have all features of 'Novice' level companies as mentioned above. They should also adopt Search Engine Optimization (SEO) to increase their market presence and to engage in effective online staff engagement as well as customer-based personalization (e.g. e-portals, customer specific pricing and product customization). They will achieve multichannel seamless integration including

integration with ERP systems for real-time stock availability checks, flexible payment options and flexible checkout with shipping/logistics options. These features will enable an 'Intermediate' level seller to conduct business with increased efficiency and credibility.

Finally, 'Innovator' level B2B companies by definition have all the features of 'Intermediate' level companies. However, they also emphasize specific features to achieve differentiation such as content marketing, high quality product images and description, layout of pages and grouping of content, product videos, product reviews with social media integration. In addition, these companies focus on front and back office integration with the e-commerce platform, pay attention to the delivery management with multiple options for logistics/shipping including order tracking without login, automated dispatch messaging and an integration of business intelligence technologies. They also use apps for buyers with online and offline options from digital touch points. These features are what identify 'Innovators' as front runners and position them optimally to meet customer demands with an e-commerce offering.

The practical steps and B2B features mentioned above are designed to guide B2B business owners and managers embarking on a digital transformation journey. They will also support companies with established e-commerce activities who are aiming to move from one level to the next by incorporating different features. In this way, they can have a clear digital transformation strategy and be successful in the next industrial revolution – the dynamically growing cross-border B2B e-commerce business.

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APPENDIX – LIST OF INTERVIEWEES

John Bains, Vice President Sales,
DHL Express, United Kingdom

Markus Reckling, Managing Director,
DHL Express Germany

Kevin Richardson, Chief Executive,
Chartered Institute of Logistics & Transport, UK

Ted Söderholm, Managing Director,
DHL Express Sweden