DIGITAL DISRUPTION IN FREIGHT AND LOGISTICS

READY TO ROLL?

accenture
DIGITAL DISRUPTION IN THE LOGISTICS INDUSTRY THREATENS TRADITIONAL PLAYERS WITH IRRELEVANCE—UNLESS THEY TOO LEARN TO DISRUPT.

New, digital entrants are transforming traditional relationships in the freight and logistics business. Their offerings, built on big data, cloud and connected platform technologies, give customers the seamless experience they already enjoy as consumers: ease of access, price transparency, and swift, near real time integrated service. Still mired in largely manual and heterogeneous processes, supported by a variety of different tools, most of the industry’s incumbents simply can’t compete.

Accenture research clearly shows that if they persist with “business as usual”, traditional players can expect to lose both competitiveness and value. If, however, they were to harness the power of digital technologies and build new, digital business models, they could significantly enhance their competitiveness, boosting earnings before interest and taxes (EBITDA) by approximately 13 percent annually.[1]

FIRST, HOWEVER, THEY NEED TO RECOGNIZE THE URGENCY OF THE DIGITAL DISRUPTION CHALLENGE.

[1] Based on a third-party logistics provider (3PL) whose portfolio includes freight forwarding, carrier and contract logistics with an industry average of €15 billion in revenues and €536 million in EBITDA.
BY CHERRY-PICKING THE MOST PROFITABLE PARTS OF THE FREIGHT AND LOGISTICS VALUE CHAIN, AGILE NEW ENTRANTS TOUTING DIGITAL, CUSTOMER-CENTRIC BUSINESS MODELS ARE STEADILY FRAGMENTING IT.

Their incursions threaten to leave incumbents with such relatively low-margin activities as transport preparation and consolidation, while undermining their traditional end-to-end advantage—the buying power that comes with in-market transparency—and intensifying the rivalries between them.

Take freight forwarders and carriers. Platform-based, online marketplaces can now connect shippers directly with both Logistics Service Providers (LSPs) and carriers. By enabling instant freight quotes, rate management and business intelligence to manage contracts and automate the quotation and sales process, these models are developing capacity spot markets that threaten the freight forwarders’ position as the system’s main capacity brokers. Shippers with less complex shipments can easily switch to the new, platform-based services. Carriers, meanwhile, can use the online marketplaces to conduct business directly with shippers. And that gives them more control over pricing and the chance to eliminate the freight forwarders’ mark-up—as well as the higher asset utilization that leads to higher margins.

Right now, the new offerings are playing most successfully with small and mid-sized customers. But they’re becoming increasingly attractive to larger customers as well. After all, if you could make your own shipping arrangements on one, Web-based central platform, without recourse to a broker, why would you hesitate to do so?
As the digital disruptors continue to penetrate the value chain with customer-centric services that consolidate logistics activities, incumbents urgently need to raise their game—by leveraging digital technologies to change pricing structures and drive insurgents out of the market.

Digitizing their operational processes will help incumbent players rise to the challenge posed by platform-based pricing models and remain competitive. But they also need to seize the value-generating opportunities that the application of new technologies delivers.

Accenture believes that eight digital technologies, at varying stages of maturity, are especially disruptive (see Figure 1).

**EACH TECHNOLOGY CHANGES THE CURRENT INDUSTRY IN ITS OWN WAY.**

All these technologies offer incumbent players struggling to adjust to digital disruption the keys to a variety of new, customer-centric business models, each of which could unlock significant value-generation opportunities (see Figure 2).

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**BLOCKCHAIN**

Secure data distribution and validation technology that improves shipment visibility and brings trust into the sale and movement of international cargo.

**AUGMENTED REALITY**

Augmented reality will revolutionize the picking, packing and commissioning processes in warehouses and crossdocking areas. If the technology is not applied, handling costs won’t be competitive and lead to margin decrease.
Robotics Process Automation will increase the automation level to almost 100% in the transport planning and customer invoicing processes leaving almost no activities to human beings anymore.

**ROBOTICS**

A driver-less way of bringing goods from A to B will revolutionize the industry by eliminating dependency on the human factor. Data collected via sensors, RFID, barcode and remote devices along the entire value chain will be a make or break capability.

**AUTONOMOUS LOGISTICS**

Digital platforms change the revenue mix by enabling both physical and virtual product offerings that not only handle products from one point to another, but also, by giving clients insights along the supply chain, enable the optimization of other parts of the business.

**DIGITAL PLATFORMS**

Big Data Analytics with data from the entire ecosystem will provide a whole new set of information that enable 3PLs to strongly drive operational efficiencies through a higher utilization of assets.

**BIG DATA ANALYTICS**

3D printing will significantly boost the decentralization of finished goods production, not only changing today’s transport volume, but also allowing the horizontal integration of additional value chain activities, thereby extending the product portfolio.

**3D PRINTING**

Standardized and easy to deploy and parametrize applications replace monolithic bespoke core applications that were used for ages in Freight & Logistics, driving operational agility into the business.

**SAAS CORE SOLUTIONS**
These digital technologies enable seven new business models that unlock opportunities arising from prevailing market challenges.

**Figure 2**

**External Focus**

1. Digitize Customer Experience
   - +3%

2. Partial Digitization
   - +4%

**Internal Focus**

3. New Business Models

4. Digitize Operations
   - +6%

5. Digital Enterprise

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Business as usual
- -3%

Relative EBITDA opportunity in % points of total revenue, including cost savings and revenue growth opportunities.

Relative EBITDA threat in % points of total revenue.
1. **DIGITAL SALES**
Actively engage and leverage existing freight online platforms with differentiated service offerings to get access to new clients and spot market. Use internal sales and customer analytics to analyze existing client's shipping behavior and develop proactive sales initiatives.

2. **CUSTOMER SPECIFIC PLATFORMS**
Customer specific platforms are the one-stop-shop for all customer information and interaction: quoting, shipping information, ordering, tracking & tracing and billing. By integrating analytics, the platform provides customizable reporting features to help clients improve logistics planning.

3. **3D PRINT FARM**
Set-up 3D-printing centres at critical geographic nerve centres to supply clients with finished/semi-finished components, printed through the LSP as contract manufacturer.

4. **MATCH MAKER**
Establish and grow an online freight platform through own knowledge and global expertise allowing a many-to-many buyer-seller relationship - either through own development or partnering with existing platforms.

5. **HOLISTIC SUPPLY CHAIN MANAGEMENT**
Increase service offerings along complete value chain of LSP clients – up and downstream. Offer proactive solutions, based on big data and analytics and combined with external data to provide actionable insights for client's strategic business planning, forecasting and proactive risk management.

6. **FORWARDING EXECUTION SPECIALIST**
Provision of clearly defined service offerings, focusing “physical” transport execution (consolidation, packing, labelling, pre-carriage, on-carriage, documentation, etc.) on online platforms. To enable competitive prices on such platforms, LSPs need to use automation extensively – physically, within warehouses/yards, and virtually, along business processes to optimize operating cost.

7. **SMART CAPACITY OPTIMIZATION**
Make own assets smart (container, ships, trucks, aircraft, trains, etc.) to enable IoT services for the logistics ecosystems as additional service offering and to radically optimize own capacity planning and management.
It’s already clear that incumbents who continue to do what they’ve always done will lose value. But how exactly will the new business models unlock value? Some digitize the customer experience; others, operations; and still others facilitate scalable ecosystems of partnerships, including competitors, with the power to optimize supply chain services. The key to maximizing value generation will be to deliver new capabilities that customers find easy to consume—either via easy-to-use platforms and online sales capabilities, or by leveraging match-making capabilities to provide completely digital services.

Thus, for example, a contract logistics provider could become an integrated business partner by using new tools and analytics capabilities to extend its view right through to the end customer. It could provide data insights that improve the customer’s business planning, or enter the field of last-mile delivery by introducing autonomous delivery vehicles.

Smart players will choose a mix of business models, depending on their strategic positioning in the value chain and which customer segment they wish to address (see Figure 3).
Specific combinations of the different business model adjustments enable the different market players to develop their business to the next level (examples below).

**Figure 3**

**Freight Forwarders**
- Logistics Platform Player: +3%
- Logistics Execution Specialist: +5%
- Integrated Business Partner: +3%
- Light Manufacturer: +3%

**Contract Logistics**
- Smart Carrier: +4%

**Carriers**
- Digital Sales
- Customer Specific Platforms
- 3D Print Farm
- Match Maker

Relative EBITDA opportunity in % points of total revenue, including cost savings and revenue growth opportunities.
Digital capabilities are critical to meeting the challenge of digital disruption successfully. We believe that incumbents need to consider and drive this “rotation to the new” as a conscious and deliberate act of renewing and transforming their core business, while growing into new businesses and services.

Our research shows that no incumbent can afford to postpone the move to digital. Over the next three to five years, a combination of new competitors, rising customer expectations, and a shift in global trade routes will force traditional intermediaries to transform—or lose relevance.

ARE YOU READY TO ROLL?

FOUR STEPS ARE RECOMMENDED:

1. TRANSFORM THE CORE BUSINESS to provide fuel for growth by identifying what’s needed to stay viable and increase profits

2. GROW THE CORE BUSINESS to fuel growth in the incumbent business model by identifying what’s needed to drive top-line growth

3. GROW THE NEW BUSINESS by identifying potential new directions and removing obsolete business services

4. MANAGE THE PIVOT to get the timing, scale and scope of required investments right
ABOUT THE RESEARCH

Accenture research is based on a fictitious reference Freight and Logistics company with an industry average net revenue of €15 billion and €536 million in EBITDA to use as a starting point for any hypotheses. We built a set of transportation mode (air, sea, land & contract logistics) and business model specific value hypotheses (e.g. analytics improves the utilization level of sea freight containers by a certain percentage). The hypotheses were refined through selected interviews conducted with start-up companies in the Freight & Logistics industry to analyze how they are approaching the industry. We then tested the hypotheses with a group of 15 Accenture logistics industry experts with multiple years of industry experience, choosing business-model-specific experts to evaluate the top- and bottom-line impact per value lever. The valuation of the hypotheses has been backed up through Accenture global research as well as other available studies. These impacts were subsequently “blind” peer reviewed by other experts for objectivity.

In addition to Accenture proprietary Freight and Logistics research, the following analyses were also leveraged:

- Accenture Technology Vision 2016;
- How Germany’s Top500 overcome digital hurdles;
- Logistics Trend Radar: Delivering Insight Today, Creating Value Tomorrow 2016;
- Visions of the future: Transportation and Logistics 2030
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