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Introduction

Technology and logistics are increasingly synonymous. Today, more than ever, we're seeing technology not only impact but revolutionize the way logistics are being conducted. Consequently the role of the CIO or head of IT within the logistics organization is transitioning from support to strategy. Technology is no longer necessarily a tool, but also a differentiator or even an enabler for logistics companies to conduct business. In this year's survey, we explore many of the general trends taking place in how logistics companies are exploring technology, but we also explore some of the critical questions related to cutting-edge technologies that are coming up over and over again in reference to the industry. Through these technologies, we explore those that might impact the industry, those that might revolutionize the industry, those that are already changing the way things are done and those that might be more buzz than reality.

We also see as new technologies mature. Big Data, for example, has been of huge interest over the last several years. However, we're seeing some companies waiver as the 'game-change' they were expecting isn't materializing. Additionally, in terms of investment, TMS continues to perform strongly despite it not being a new system.

How will IoT, 3D Printing, Drones, Driverless Vehicles and Augmented Reality play out in the industry? Will investment strategies change for companies as new technologies impact the way the business is done? Will the CIO's role continue to evolve from operations to strategy? Will the role of the CIO get churned into that of the COO? We don't' have all the answers, but this report will provide you with a unique glimpse into how technology and logistics are coming together.



What are the largest business challenges that you're currently facing?

- 1. Improve business operations processes to streamline knowledge transfer and enable collaboration
- 2. Rapidly integrating (for on-boarding and on-going adherence) the supply chain (E.g. clients', suppliers', partners') business processes and data to meet client expectations
- 3. Obtain information from supply chain, consolidate, federate, make it available across the enterprise "single source of truth"
- 4. Modernize legacy applications to better address new market opportunities and challenges
- 5. Identify (I.e. catalog) and exploit the activities/business processes common to multiple clients, for efficiency, while offering differentiation

Over the last two years, the top 5 results of 'what are the largest business challenges that you're currently facing' has been almost entirely identical. What we can take from this is that the challenge to improve business operations is significant, and arguably an ongoing process. Rapid integration of the supply chain business processes and data to meet client expectations was chosen second in 2015 as in 2014 by respondents. This is certainly indicative of the challenge 3PLs have been facing in aligning with their customers' business objectives. In essence, of the top 5 selected challenges respondents have selected, many are ongoing challenges central to the logistics business rather than wholesale technological changes. Moving forward, we're likely to continue to see these priorities rank highly – but the mechanisms for achieving them change through technology.



Over 75% of respondents said they were increasing budgets this year. Year on year since 2013 this has been a steady trend, with a big jump coming this year in particular. One of the drivers for this could be the availability of affordable technology with proven ROI, or that has become the norm of logistics providers, thus making it a necessary investment for the sake of the customer. Another driver is the increasing competition traditional LSPs are facing at the hands of their tech-driven counterparts. With new technology advances – IoT, M2M, Mobile – we can imagine investments are going to continue to increase to ensure LSPs remain competitive.

Will your company be increasing or decreasing its IT investment this year?



In their own words - What is driving IT budget changes?



Key words respondents submitted highlighting why their budgets were changing included: 'New' – ie. new investments, new technology and other areas companies are needing to invest. 'Customer' – the customer features heavily. As we see in the next graph, the customer plays a central role in why companies are investing in new technologies, so it's no surprise seeing this word highlighted. 'Efficiency' also features heavily, something we also see as a key driver for new technology investments as we see later in the report. Other phrases respondents submitted included: Legacy refresh, demand for IT development from customers, implementation of new systems, modernizing and innovating.



What is your company's number one reason for investing in new technology?

- To make operations quicker and more efficient
- To fulfil customer requirements
- To keep up with competitors
- Innovation
- To lower operation costs

Respondents reported that fulfilling customer requirements was the top reason far and away for investing in new technology. At 45%, this was a significant jump over previous years where it peaked at 23%. In previous years, making operations quicker and more efficient topped respondent's answers to this question. Customer focus has been a major challenge for 3PLs in recent years, with many customers complaining that LSPs don't quite get the business (see eft's 2015 3PL report). As such, this upswing in customers being one of the primary drivers for new technology investments can be possibly attributed to this. In addition, as data and analytics play an ever increasing role in the decision-making of companies along the supply chain, there's an increasing demand for partners to provide more information.



What is your company looking to invest in over the next 12 months?



TMS again proves popular in answering this question. TMS has ranked highly over the last 3 years. As algorithms improve, routing variables increase and more delivery options are added TMS will continue to get increasingly complex. As such, we can see why TMS so often is chosen at the top of investment areas year on year. Business intelligence has also ranked highly as areas companies are looking to invest. With forecasting representing such an important aspect of businesses today, and the increase in data in logistics, BI is a clear area companies have the potential to gain via investment.



Outsource or build in-house?



Primary areas for in-house built technology included track and trace, business intelligence, business applications, network and visualization. This year, more respondents were reporting to build solutions in-house than in previous years. This could be consequent of the availability of tools to build such tech in-house.

Cloud, GPS and social media ranked high in terms of technology that are largely outsourced. Last year, results were similar with the exception that fewer technologies were built in-house. Last year's in-house areas included route planning on top of track and trace, BI and Business Applications.



How Does Technological Innovation Rate as a Priority When Compared to Core Business Activities?



Technological innovation clearly has some role in core business activities. This year, respondents resoundingly said it was on the same level as core business activities. However, year on year, we are seeing a slight move away from innovation playing a central role in logistics businesses. In 2015, overall, 80% of respondents said innovation was either at the same level or a higher level to the core business. 20% of respondents selected higher than and 60% same level as. In comparison, in 2014, there was a total of 81% of respondents indicating innovation was at the same level or a higher level than the core business, with a breakdown of 32.81% indicating a higher level and 48.44% at the same level. With only two years of asking this question, we can't exactly call this a trend, but these results do indicate a shift towards keeping innovation on par with the business' core practices, rather than having it drive the business on the priority scale. As logistics' commoditization sinks in as a reality and the needs of customers expand, it'll be interesting to see whether this is just a blip on the radar, or whether companies are looking to refocus themselves on their core business.

When providing IT Solutions to customers and partners, what are your top 3 challenges?



Integration with customer IT systems was the top selected choice in terms of challenges with providing IT to customers or partners. This was also the case in 2014. Interestingly, the provision of added visibility to customers has dropped year on year, with only 34% of respondents selecting it, where in previous years it has been up around the 48% mark. This could be due to the fact that this has become a standard practice for LSPs and a necessary service for them to provide their customers with.



Where do you find out about new IT solutions?



In your opinion who should the CIO/Head of IT report to?



Conferences were far and away the top choice for logistics executives responding to this question. There was a jump of 17% from last year as well, where conferences also led the way with 60% of respondents. Internet research and competitor research rounded out the top 3 areas executives were looking for new technologies. Far and away the 'CEO' was selected as the executive heads of IT should report to. This echo's last year's results, but with even more emphasis on the CEO away from the COO. If we extrapolate the role of the CEO within the organization, and the role of the COO within the organization, we can argue that this is a shift in valuing the CIO's role as more strategic than operational. As technology continues to permeate logistics, it's not surprise that the top technology decision-maker is no longer just there to support the business, but also to help drive it forward.



Does your CIO/Head of IT currently sit on the operational board or executive management team?



80% of respondents indicated that yes, the head of IT was a member of the executive management team. This is up from the year before where only 73% of respondents indicated their head of IT was a member of the executive management board.

Do you think the time it takes your company to undertake vendor selection, in the last year, has...



If we compare last year's answers to this year's answers, the overarching trend is that this process has increased. There are several possible reasons for this. First of all, while tech budgets have risen, the continued economic recovery, and companies learning from past mistakes have meant that vendor selection has become more careful, ensuring not only ROI but the strategic benefits these solutions might add to the business. Secondly, as IT is becoming more and more a tool of differentiation, vendor selection has an increasingly strategic slant. While it's not necessarily to the extent of 'make or break' it is clear that companies are gaining more and more value from vendors, and are able to achieve significant ROI, cost savings and differentiation through the selection of the right vendor.

In our follow-up question, we see that more vendor choice as well as tighter control of cost decisions has led to these increases in vendor selection. This certainly supports the notion that the strategic nature of IT solutions has really forced logistics companies to be more diligent in their selection of vendors.



Who is currently involved in the vendor selection process?



Which cutting edge technologies is your organization looking to invest in?



The CIO and 'other members of the IT team ' were the main job roles involved in the vendor selection process. The CFO and CEO have generally a much smaller role according to respondents.

While most respondents weren't investing in the listed technologies, it is interesting to note that there are some companies that are – especially in M2M/IoT. While many of these technologies are nascent and not proven, their potential has clearly caught the interest of some logistics providers and has resulted in some investment. We'll be asking this question in years to come, and as these technology areas boom or bust we'll be able to track buy-in from the industry.



What do you look for when selecting your solution providers?



Matching requirements and high quality were the top choices when logistics providers were asked on what they use when selecting solution providers. Low running costs was fourth with effortless integration fifth. Effectively, costs were not barriers to entry for logistics companies into buying into a vendor solution. What was of primary concern was functionality matching aims and level of quality. What is surprising though is that effortless integration ranks so lowly. If we look back at previous questions above, we see integration playing an important role when it comes to customers, etc.



Which statement best describes the role of the IT department in your logistics organization?



- The IT department serves to support the business operations
- The IT department plays a strategic role in the business
- The IT department serves to drive innovation in the business
- The IT department is the primary component of the business

How is the role of the logistics CIO being affected by the proliferation of accessible technology? (Cloud, mobile, apps, etc.)



While the role of the CIO clearly falls under the remit of the CEO as mentioned above, there are clearly many respondents who still believe the IT department still plays a support role. As technology continues its surge in logistics, and as more and more executives identify CIOs as decision-makers and strategic, we are likely to see a shift away from a 'support-role' towards a strategic one. Respondents clearly see the role of the CIO increasing in step with the proliferation of accessible technology. Again, as is the theme throughout this section of the report, the CIO is really evolving more and more from support to strategy. This is further evidence of what's set to change in the industry regarding the IT department as a whole affecting the whole business through technologies that are able not only to ease business processes, but drive dramatic ROI, reduce costs and perhaps most importantly attract and satisfy customers.



Is the use of big data technologies on the horizon for your company?



- We're already investing in the area
- Yes, we'll invest in big data technologies in the next 12 months
- No, we're not considering investing in the next 12 months





Year on year, 2014 vs. 2015, more people are considering using big data technologies. There is an increasing number of companies who are in the early stages of Big Data implementation. With the influx of M2M technology, and more Big Data usage amongst manufacturers and retailers, we're likely to see more movement towards Big Data technologies. The response to the impact of Big Data on company differentiation has become more muted since 2014. More respondents selected 'reasonable impact' than any other answer. Last year, there was a total of 54% of respondents that selected Significant Impact or Total Game Changer. This year, only 43% selected these options. The decline can be attributed to the difficulties companies are having in implementing Big Data. While there are solutions and have been solutions that are 'turn-key' in that they produce results immediately, Big Data has shown itself to be a much slower solution at creating an impact. Challenges include understanding what the collected data can really provide the organization with, ensuring data is clean enough to use, correctly interpreting the results of metrics applied to the data, etc. With all these moving and changing elements, there is clearly a lot that needs to be honed before companies start to easily see Big Data based differentiation.





Conclusion

While headlines are seeing huge changes in the potential technology has to change logistics, in reality, things aren't happening as quickly. In reality, logistics executives are looking at incremental changes, tackling the day to day challenges they're facing regarding technology. The role of the CIO is only slowly moving towards strategy, rather than the leaps and bounds we've heard predicted. The cutting-edge technologies such as 3D Printing and Augmented Reality are perhaps further away than we've foreseen in their implementation in day to day logistics businesses.

However we are seeing early adopters who are looking into new technologies. We are seeing asset-light, tech enable logistics companies driving huge growth. We are seeing CIOs joining executive management boards. The future of logistics technology is bright, it will be interesting to see how quickly the industry gets there though.

Want to learn more?

The leaders in logistics IT will be gathering in Austin, April 20-21 to discuss how technology is changing logistics. Join the CIOs of XPO, APL, Landstar, Saddle Creek, USXpress, UniGroup and more to tackle the key questions in this report and more. Visit **www.eft.com/CIO** for more information

Complimentary passes are available for senior IT executives working at logistics, retail or manufacturing companies.

Gaining perspective from a broad array of individuals and companies helped crystalize some of the challenges and opportunities facing our company. **Mike Grayson, SVP Operations, Worldwide Express**

The content of the event was good. It is good to see that others have the same challenges and occasionally some found a solution.

Larry Thomas, CIO, Landstar System

First class job from EFT, very professional conference well managed and carefully thought out. I came away from this event with a much better knowledge and understanding of trends within our industry, made some valuable contacts and good friends. Time well spent.

Jeff Parr, Director of Operations, Exel DHL Supply Chain

