

Driving Competitive Advantage for Supply Chains by Delivering Relevant and Personal Customer Engagement

Theodor PURCĂREA

Abstract

Businesses are moving forward in a strategic way from the future value chain project to the next-generation supply chain, to AI and blockchain driving competitive advantage for supply chains. There are important decisions to make within the next-generation digital supply chain and the next-generation CX, reimagining CX. And while struggling to deliver value to the business in full proactive CX revolution, there is a real need to consider key smart CX trends which are matching or competitive to an adequate AI strategy, benefitting from new waves of innovation in AI which is continuing to revolutionize CX.

Keywords: Next-Generation Supply Chain; Next-Generation Digital Supply Chain; Next-Generation CX; AI;

Blockchain; Smart CX trends

JEL Classification: L81, L86, M31, Q55

From the Future Value Chain Project to the Next Generation Supply Chain, to AI and Blockchain driving Competitive Advantage for Supply Chains

A Deloitte Dbrief webcast from April 26, 2017 revealed that retail revenues were rising every year since 2009 (outperforming GDP). As an interesting (or as a suggestive) coincidence, on the occasion of the ECR Australia Conference 2009, Sabine Ritter, from The Consumer Goods Forum (CGF) and Jim Flannery, from P&G approached the topic “The Future Value Chain Project, Trends, Opportunities And the Industry Response”, underlining among other aspects the need: of adequately treating industry track (collaborate, true collaboration being imperative) and trading partner track (competitive advantage) by identifying new ways of working together, eliminate value chain disruptions, and enable growth (see the figure below); of using the so called “New Capability Model” (supply chain managers needing new capabilities - see the next figure below); of considering solutions focused on innovation (necessary to be rapidly applied) within the physical supply chain: in store logistics (in store visibility, shelf ready products, shopper interaction), collaborative physical logistics (shared transport, shared warehouse, review & share infrastructure), reverse logistics (products recycling, packaging recycling, returnable assets), fluctuations management for promotions (joint planning, execution & monitoring), identification/labeling, efficient assets (vehicles/building: alternative energies, efficient/aerodynamic vehicles, switching modes, green building), joint scorecard & business plan, regulatory & environment. (Ritter and Flannery, 2009)

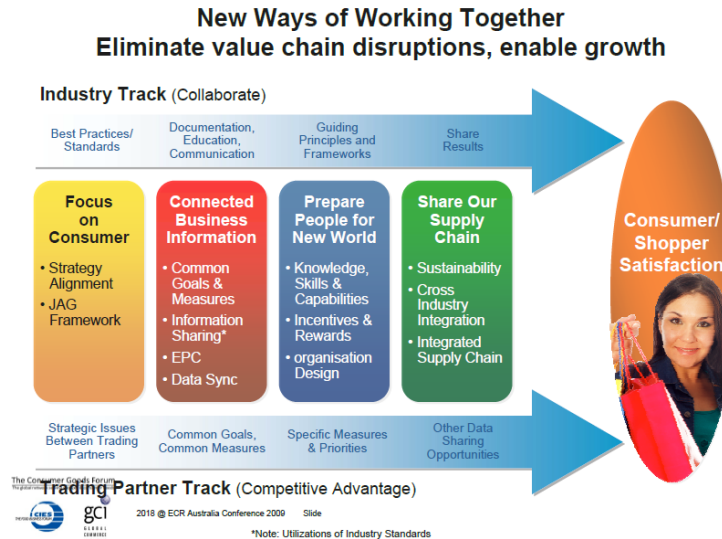


Figure 1: New ways of working together, eliminate value chain disruptions, and enable growth

Source: Ritter, S., Flannery, J. (2009). *The Future Value Chain Project, Trends, Opportunities And the Industry Response*, ECR Australia Conference 2009 (work cited)

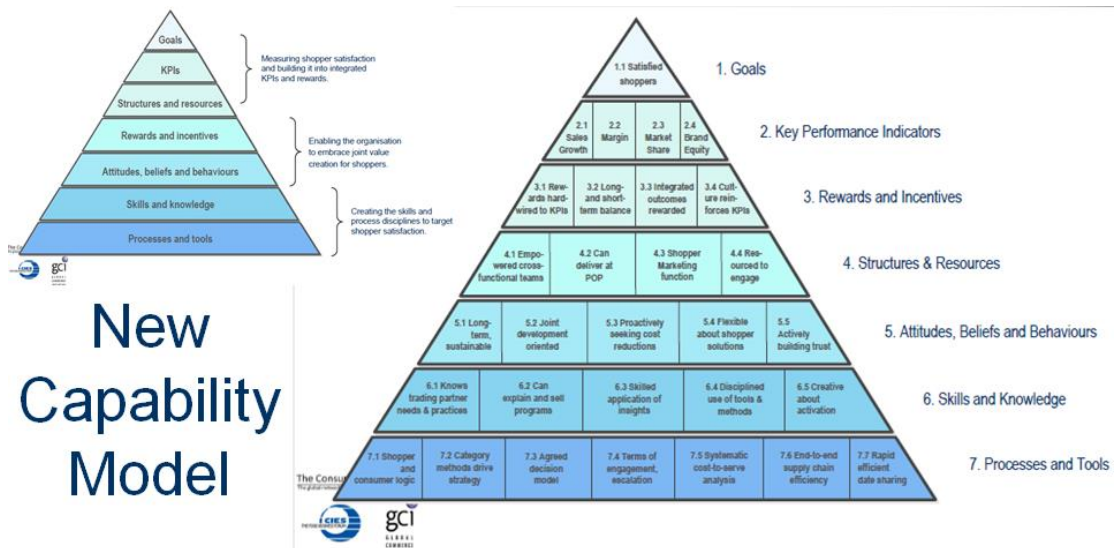


Figure 2: New Capability Model

Source: (Adapted from) Ritter, S., Flannery (2009). *The Future Value Chain Project, Trends, Opportunities And the Industry Response*, ECR Australia Conference 2009 (work cited)

In recent years the reputed Cranfield Centre for Logistics and Supply Chain Management, University of Cranfield, was focused on the “Leadership and Performance

Behaviours in Next Generation Supply Chain” as shown in the figure below:



Figure 3: Leadership and Performance Behaviours in Next Generation Supply Chains

Source: Cranfield Centre for Logistics and Supply Chain Management and EFESO Consulting, Research project, May 2016 - March 2017 (work cited)

On October 2, 2018 we highlighted that according to recent sound research evidence: the complexity of the supply chain has been continuously increased by digital disruptors, evolving customer requirements etc., leadership being challenged to both benefit from new waves of innovation in Artificial Intelligence (AI, born in 1956 and driven today by deep learning and machine-learning techniques, transversing industries and functions, and considerably impacting the work together with automation), Machine Learning (a subset of AI, as it is the case of another AI subset, Natural Language Processing, we will refer to it later on), Internet of Things (IoT) and Blockchain etc., and to responsibly address societal concerns accordingly; there is no doubt that AI will revolutionize customer experience (CX, as the element of engagement that correlates with loyalty, which increases at every level of CX), by improving human marketing decisions and capabilities. (Purcarea, 2018) And all these were expressed after the Academic & Business Partnership 2018 SCM 4 ECR Conference, 18-19 October, Târgoviște, Romania – with the theme “Future Leadership and Artificial Intelligence Drive Value Networks” – which was organized by the SCM-ECR Laboratory, The Faculty of Economic Sciences, Valahia University of Târgoviște (being chaired by Professor Virgil Popa and co-hosted by Ruediger Hagedorn, Director E2E Value Chain & Standards Pillar, The Consumer Goods Forum, CGF – the Global Network Serving Shopper & Consumer Needs), in collaboration with The Consumer Goods Forum’s E2E Value Chain & Standards Pillar, Czestochowa University of Technology(Poland), Romanian-American University (Faculty of Management-Marketing), University Politehnica of Bucharest (Faculty of Transports), and “Vasile Goldiș” Western University of Arad. This successful Conference addressed a number of significant topics centered around the current new challenges – LOGISTICS (Transport and Warehousing);SUPPLY CHAIN MANAGEMENT (Suppliers Relationship Management; Customers Relationship Management; Demand Chain Management; Reverse/Green Logistics; Financial Supply Chain Management; Business Intelligence; Internet of Thinks; Physical Internet; Blockchain; Digitalization; Data Mining, Data warehousing, Big Data, Cloud Information; Robotics and Machine Learning; Digital/Internet Disruption, and Disruptive Innovation; Innovation Strategy; Customer Intelligence; Efficient

Consumer Response; 4 Customer ERA; Conversational Commerce; Value Chain Management; Omnichannel for Mass customization; Customer Experience and the New Technologies; Customer Engagement; Customer Empowerment); LEADERSHIP (Preparing the Future Leadership for Disruptive Strategy, Blue Ocean Strategy; New Technologies and Vision; Leadership Change; Change Management; The New Education for Future Leaders) – being well-attended. It was a natural evolution of the successful steps that occurred in SCM 4 ECR Conference's history (1996-2018), also considering the book (introduced by the reputed Ruediger Hagedorn) launched last year by the renowned expert Professor Virgil Popa, the builder of this true brand – Supply Chain Management (SCM) for Efficient Consumer Response (ECR) Conference.

The first day of 2018 SCM 4 ECR Conference was attended by the above mentioned globally recognized Keynote Speaker Ruediger Hagedorn – Director E2E Value Chain & Standards Pillar, The Consumer Goods Forum, Paris – who reconfirmed that strategic design thinking is the next competitive advantage. Another special guest was the reputed Professor of Logistics and Supply Chain Management Michael Bourlakis, Director of Research at the prestigious Cranfield School of Management, Head of Logistics, Procurement and Supply Chain Management, Cranfield University, UK. Both special guests delivered a high-profile talk and revealed their experience, expertise and wisdom. All the above mentioned topics around the current new challenges were approached by other distinguished Keynote Speakers (such as Professors Borna Abramovic, University of Zagreb and Jörn Schlingensiepen, Technische Hochschule Ingolstadt, and Dr. Gerd Wolfram, Founder RFID Implementation METRO Group, CEO and Owner IoT Innovation & Consult I Partner Digital Connection I Author I, Cologne Area, Germany, Management Consulting, and also by other Participants benefitting from digital technology.



Figure 4: The Academic & Business Partnership 2018 SCM 4 ECR Conference

Source: Purcarea, T. (2018). A great success of the Academic & Business Partnership 2018 SCM 4 ECR Conference, Romanian Distribution Committee, 23 Oct 2018 (work cited)

Within the framework of this Academic & Business Partnership 2018 SCM 4 ECR Conference, we concluded that if a year ago, in 2017, we learned that - as Supply Chain 4.0 will affect all areas of SCM - it is necessary to consider key enablers (a clear definition, new capabilities and a supportive environment) in approaching the transformation into a digital supply chain, adopting new technologies, (Alicke et al., 2017) identifying hidden sources of improvements in supply-chain performance, (Karlsson et al., 2017) giving a special attention to the companies' Omni channel fulfilment's over time evolution along the make-versus-buy continuum (end-to-end outsourcing, best-of-breed partnerships, in-house management), (Hu and Chopra, 2017) and also better understanding that customer experience (CX) is value (this last idea about CX representing the digital reality no.1), (Viaene, 2017) this year, in 2018, we learned (among other aspects) that: the organization should be reinvented and transformed from both a digital and human perspective, considering leadership and performance behaviours in next generation supply chains (as we have seen above); the organization should better understand the role of the joint search for creating, delivering, and capturing new value, reassembling the value network for business model innovation; (Doorneweert, 2017) how powerful is the impact of AI on the future of retail: personalization, search and chatbots (Natural Language Processing and Machine Learning being the types of AI behind chatbots); (Keyes, 2018) to read and understand the insights extracted by AI is an imperative for marketers; (Kahn, 2018) AI can be used to augment human behavior and improve communication skills; (Feast, 2018) the highest customer service objectives and goals can be achieved by combining the strengths of digital interfaces and humans; (Jonassen, 2018) the best practices revealed the need to focus on horizontal processes, build balanced scorecards, and ensure consistence of leadership and culture, strong planning and network design, and clarity of supply chain excellence. (Supply Chains to Admire – 2018 from Lora Cecere)

A few weeks after the 2018 SCM 4 ECR Conference an article drew our attention, posted on CGF site by Scott McLay, Marketing Executive, Sage, (McLay, 2018) who (while approaching the developments of AI, automation and future of work) showed how our lives are already impacted by AI in a meaningful way, both on an individual level (our phones' personal assistants, personalised newsfeeds, increased banking security etc.), and in the business world (where many processes and fields of work were already transformed by AI), being interesting to see the Sage guide to the benefits of AI and automation for business.

What are the benefits of AI and automation to business?



Figure 5: The benefits of AI and automation for business

Source: McIntosh, S. (2018). *AI and automation: The benefits for business and industry*, Sage, 22 Aug 2018. Retrieved from <https://www.sage.com/en-gb/blog/ai-and-automation-business/>

As shown by Gartner from the beginning of this year, there is no doubt about the potential of AI (as one of the eight strategic technology trends for supply chain identified by Gartner as driving competitive advantage for supply chains, alongside advanced analytics, IoT, intelligent things, conversational systems, robotic process automation, immersive technologies, and blockchain) to revolutionize supply chain processes and remaking CX. (Petty, 2018) Within this vision, a few examples of the role of AI in better sensing and shaping demand by a supply chain (the AI-enabled mobile app Olay Skin Advisor, the AI-based platform McCormick FlavorPrint) were offered.

As we have seen above, blockchain is another strategic technology trend driving competitive advantage for supply chains. A recent workshop organized by CGF's End-to-End Value Chain Pillar and hosted by IBM focused on the so-called "Blockchain Interoperability", being attended by significant representatives (retailers, suppliers, developers etc.) and approaching a series of best practices. By January 2019, a paper reflecting the outcomes of this workshop (such as: a key role of Application Programming Interfaces, the need of voluntary business rules, the role of the "Business Process 4.0" as enabling technology for new processes etc.) is expected to be finalized. On the other hand, as explained recently by distinguished IBM's representatives: there is a clear interest of technology consumers (most of them already chosen cloud or blockchain platform) in interoperability, considering their search for freedom of choice with regard to a specific vendor offering and to possibility of changing providers down the road (the highly configurable Hyperledger Fabric, for instance, can be easily upgraded from one

version to the next); (Ferris, 2018) additional value beyond the capabilities of today's networks can be unleashed by ensuring the interoperation of blockchain networks (as a “web” of interconnected networks) and solutions on the basis of a “mashup” application including a variety of capabilities defined in data models and smart contracts (a major step forward for the blockchain community being the partnership announcement of Hyperledger and the Enterprise Ethereum Alliance on October 1, 2018). (Cuomo and Murphy, 2018)

Four years ago, the global Assessment of Excellence in Procurement Study, Procurement-Powered Business Performance, completed by AT Kearney, pledged for reasserting procurement's position as a critical driver, starting from the procurement's use by leaders “to catalyze lasting, superior business performance through excellence in managing categories, suppliers, and teams”. The entire end-to-end process involved in procurement is known as “Source-to-Pay” (S2P), encompassing from spend management, strategic sourcing and vendor management to purchasing, performance management and accounts payable. (SMART by GEP)

It shouldn't come as a surprise within this all above general context that McKinsey's representatives demonstrated very recently how new levels of performance across the value-creation lifecycle are delivered by a next-generation procurement operating model for source-to-pay which capitalizes on advances in digital, data, and analytics, by adequately coordinating multiple capabilities to enable, capture, and sustain value, as shown in the figure below: (Khushalani and Woodcock, 2018)

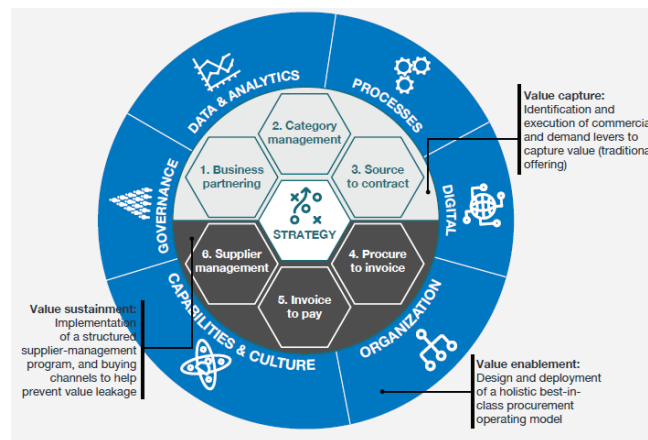


Figure 6: 2A successful procurement operating model coordinates multiple capabilities to enable, capture, and sustain value

Source: Khushalani, S. and Woodcock, E. (2018). A next-generation operating model for source-to-pay, McKinsey & Company, December 2018, Operations (work cited)

The McKinsey's representatives underlined from the very beginning the extensive recognition of the effective procurement as a source of a competitive advantage.

The Next-Generation Digital Supply Chain and the Next-Generation CX, Reimagining CX

Two years ago, in order to both structure the main Supply Chain 4.0 improvement levers (service, cost, capital, and agility) and to map them to six main value drivers (*planning*: predictive analytics in demand planning, closed-loop demand and supply planning, automation of knowledge work, advanced profit optimization, scenario planning; *physical flow*: automation of warehousing, autonomous and smart vehicles, human-machine interfaces, smart logistics planning algorithms, in situ 3-D planning; *performance management*: automated root cause analyses, digital performance management, online transparency; *order management*: no-touch order processing, real-time replanning, reliable online order monitoring; *collaboration*: end-to-end/multitier connectivity and supply chain cloud; *supply chain strategy*: dynamic network configuration and micro-segmentation), it was developed by McKinsey the so-called Digital Supply Chain Compass (see the figure below): (Alicke et al., 2016)



Figure 7: The McKinsey Digital Supply Chain Compass maps Supply Chain 4.0 improvement levers to six main value drivers

Source: Alicke, K., Rachor, J. and Seyfert, A. (2016). Supply Chain 4.0 – the next-generation digital supply chain, McKinsey & Company, October 2016 (work cited)

The McKinsey's representatives showed that the journey of capturing the value can be started immediately and depending on the current supply chain's digital maturity, while avoiding or reducing the sources of digital waste (data capturing and management; integrated process optimization; physical process execution of humans and machines), and ensuring the transformation into a digital supply chain on the basis of the adequate capabilities and environment.

In March 2018 Bain & Company's partners attracted the attention on the fact that in order to build a digital supply chain that is fit for the future companies need to take into account that more important than precision are both their flexibility and adaptability to the changing market conditions, turning disruption into opportunity by clarifying from the very beginning not only their necessary supply chain capabilities and the way in which the digital tools can help them to create powerful new business models, but also which will be their initial high-value digital moves. (Israelit et al., 2018) They showed, for example, how retailers can increase supply chain velocity and sales with the help of the digital tools underlining three key initiatives (see the figure below):

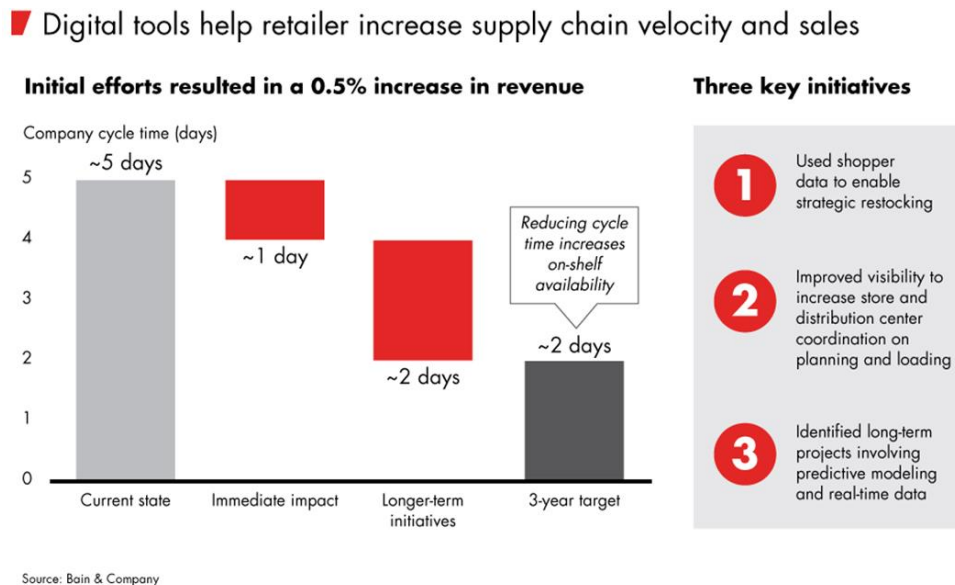


Figure 8: Digital tools help retailer increase supply chain velocity and sales

Source: Israelit et al., 2018. Build a Digital Supply Chain That Is Fit for the Future, Bain & Company, March 13, 2018. (work cited)

In the same month of March, Kevin Hogan and Kasey Lobaugh, managing directors, Deloitte Digital, Deloitte Consulting LLP and Rob Garf, VP, and Heike Young, manager, industry strategy and insights, Salesforce, highlighted significant aspects from the 2018 Salesforce and Deloitte study entitled “Consumer Experience in the Retail Renaissance” (the survey being conducted online from December 20, 2017-January 5, 2018 with a third party, FocusVision Decipher, and among 561 retail practitioners in Australia/New Zealand, Benelux/Nordics, Canada, France, Germany, Japan, the UK, and the U.S.), such as: (Hogan et al., 2018) there are new opportunities created by the changing marketplace dynamics and within this evolution the consumer experience (understood as the sum of all the consumers’ interactions across touch points) can be rethought by the forward-looking brands which, in order to deliver relevant and personal engagement, are synchronizing consumer data, technology strategies, and experience (which remains overpromised and under delivered; see top consumer experience improvement and investment areas in the figure below); in order to better orchestrate and manage

their marketing, commerce, and service capabilities brands need to move toward a unified consumer engagement platform, the journey to unified consumer engagement (focused on consumer experiences and interactions on the basis on the full picture of consumer data, not only on the commerce data) including unified commerce (which places CX as first priority by leveraging a single commerce platform, but is focused on inventory and transactions) as a part; AI is considered to be key in the emerging unified technical environment, in order to adequately link product, customer, and transactional data (see in the next figure below how AI is used by brands to personalize CX).

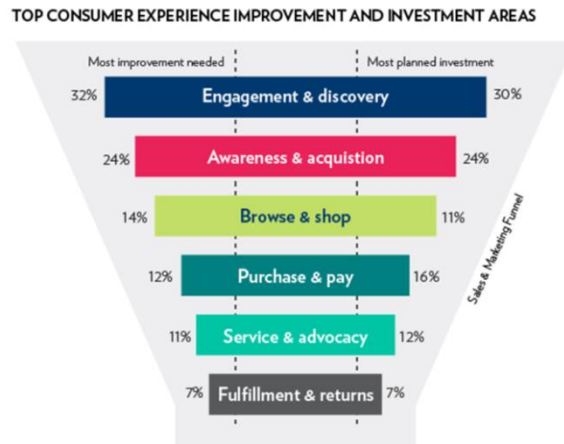


Figure 9: Top consumer experience improvement and investment areas

Source: Salesforce and Deloitte, "Consumer Experience in the Retail Renaissance," 2018, cited by Hogan et al., 2018 (work cited)

HOW BRANDS CURRENTLY USE AI TO PERSONALIZE THE CONSUMER EXPERIENCE

Among retailers that have adopted AI for at least one application



Figure 10: How brands currently use AI to personalize the consumer experience

Source: Salesforce and Deloitte, "Consumer Experience in the Retail Renaissance," 2018, cited by Hogan et al., 2018 (work cited)

According to these representatives of Deloitte and Salesforce, in order to build a unified consumer experience it is imperative for teams across marketing, commerce, and customer service to collaborate, opening this way brands' opportunity of delivering what matters most within CX on the basis of the adopted unified engagement platform.

Also recently, Mark Asher, Director of Corporate Strategy at Adobe (he was prior a principal consultant at PricewaterhouseCoopers), argued that within the age of digital disruption the in-store experience is made much more personal (while brand outreach is made far more captivating) by the immersive technologies like augmented reality (AR), and that retail is transformed by e-commerce which constitutes a true structural shift, becoming till 2021 the largest world retail channel. (Asher, 2018) He gave a list of very suggestive examples: Nieman Marcus' Memomi Memory Mirror (which has a built-in screen and camera offering shoppers 360-degree views of outfits etc.); Walmart's customers' opportunity of using their iOS devices to scan products on shelves (in order to have both up-to-the-minute pricing and customer reviews); Timberland's crowd-scale AR game in Madrid (in order to launch its newest hiking boot, the audience being encouraged to enter in the game); Nike's NikeiD service (using now, after eleven years, an AR experience so as to completely personalize customers' sneakers); U.K. retailer Very's weather check at a user's location (in order to present climate-specific offers on retailer's website's home page); online retailer Bonobos's brick-and-mortar Guideshops offering customers, before ordering online, personally assistance in picking the right size and fit of the wanted clothing; McDonald's self-order and self-pay kiosks (already for some time); Dunkin' Donuts's digital ordering experiences created inside of the vehicles' incorporated digital touchscreens (also already for some time); Starship's robotic delivery (being in its early implementation). Asher also pledged for a better understanding of the role of technologies in both amplifying company's relationship with customers, and creating more traffic, loyalty, and revenue, attracting the attention on the sensitive relation between innovation and CX.

Instead of conclusions: *Struggling to deliver value to the business in full proactive CX revolution, let's consider key smart CX trends which are matching or competitive to AI strategy*

Very recently, Prof. Dr. Bernd Hallier, President of the European Retail Academy (ERA) informed us about the Retail Summit 2019 (see the figure below), a jubilee event (the 25th conference) which will take place on February 4-6, 2019 at Clarion Congress Hotel Prague, this being the largest gathering of retailers and suppliers of consumer goods and services for the Czech and Slovak markets.



Figure 11: ERA on Retail Summit 2019, February 4-6, 2019 Prague

Source: <http://www.european-retail-academy.org/>

The theme of Retail Summit 2019 is “Customer Experience - From Experience to Enjoyment”, the conference program inviting to useful lessons to learn from the best global and domestic retailers and manufacturers, more than 120 important personalities – beginning with Steven Van Belleghem, author of significant books: “Customers the Day after Tomorrow: How to Attract Customers in a World of AIs, Bots, and Automation”, Lannoo Publishers, March 8, 2018; “When Digital Becomes Human: The Transformation of Customer Relationships”, Kogan Page, April 28, 2015; “The Conversation Company: Boost Your Business through Culture, People and Social Media”, Kogan Page, June 15, 2012; “The Conversation Manager”, Lannoo Publishers, September 16, 2010 – bringing their contribution accordingly. It is interesting to note that the Conference’s main program and the 14 parallel sections will cover significant topics such as: digital transformation, relationships between retailers and manufacturers, creating employee experience, increasing the total value of categories, marketing communication in an Omni channel environment, product innovations, private labels and category management, applying of the latest technology for uplift of CX, optimizing logistics, and sustainability.

As shown also very recently by CX Network, while analyzing the insights from its 2018 Global State of Customer Experience report (which divided the AI journey into seven stages: no plans to start, want to learn more, beginning stages, sourcing vendor information, pre-deployment, early implementation, and established), AI is a growing priority CX, being key smart CX trends which are complementary or competitive to an AI strategy (including self-servicing model, personalisation, security, block chain and multi-model chat bot). The report revealed that the major hurdles in the way of AI deployments are data privacy and big data management. It is worth underlining that CX Network’s look back at CX in 2018 (Henry, 2018) highlighted among other aspects that: speed, convenience, and knowledgeable service delivered

in a friendly manner are the essential elements of positive CX; there is plenty of room for both completely seamless Omni channel experience, and a quick and effective solution via social media (this solution being expected by the social media savvy customers within one hour); at the forefront of the CX revolution (with the application of chatbots leading the way) is continuing to be AI.

Indeed, there is no doubt about the need for a better supply chain management, harmonizing the digital environment with the in-store environment, benefitting from new waves of innovation in AI which is continuing to revolutionize CX, adequately mixing it with both brand experience and employee experience, and driving evolving customer engagement.

References

- Alicke, K., Rexhausen, D. and Seyfert, A. (2017). Supply Chain 4.0 in consumer goods, April 2017. Retrieved from <https://www.mckinsey.com/industries/consumer-packaged-goods/our-insights/supply-chain-4-0-in-consumer-goods>
- Alicke, K., Rachor, J. and Seyfert, A. (2016). Supply Chain 4.0 – the next-generation digital supply chain, McKinsey & Company, October 2016. Retrieved from <https://www.mckinsey.com/business-functions/operations/our-insights/supply-chain-4-0-the-next-generation-digital-supply-chain>
- Asher, M. (2018). How Digital Technology Enhances Retail Experiences, CMO.com by Adobe, November 14, 2018. Retrieved from <https://www.cmo.com/features/articles/2018/11/8/heres-how-retailers-are-adapting-to-digital-disruption.html#gs.JF1sd7l>
- Cuomo, J. and Murphy, C. (2018). Network of networks: Enabling the blockchain economy, IBM, December 3, 2018. Retrieved from <https://www.ibm.com/blogs/blockchain/2018/12/network-of-networks-enabling-the-blockchain-economy/>
- Doorneweert, B. (2017). Reassembling the value network for business model innovation, March 16. Retrieved from <https://valuechaingeneration.com/2017/03/16/reassembling-the-value-network-for-business-model-innovation>
- Feast, J. (2018). The Empathy Economy: Emotional Intelligence in Customer Service, Xconomy, July 5th. Retrieved from <https://www.xconomy.com/boston/2018/07/05/the-empathy-economy-emotional-intelligence-in-customer-service/>
- Ferris, C. (2018). Blockchain interoperability: I do not think it means what you think it means, IBM, October 22, 2018. Retrieved by <https://www.ibm.com/blogs/blockchain/2018/10/blockchain-interoperability-i-do-not-think-it-means-what-you-think-it-means/>
- Henry, C. (2018). A look back at customer experience in 2018, CX Network, 12/13/2018. Retrieved from <https://www.cxnetwork.com/cx-experience/articles/customer-experience-in-2018>
- Hogan, K., Lobaugh, K., Garf, R. and Young, H. (2018). Retail Renaissance: Redefining the Consumer Experience, Deloitte Digital, Salesforce, March 20, 2018. Retrieved from <https://deloitte.wsj.com/cmo/2018/03/20/retail-renaissance-redefining-the-consumer-experience/>
- Hu, M. and Chopra, S. (2017). Creating an Omnichannel Supply Chain for Branded Manufacturers: The Untapped Potential for Growth, European Business Review, February 28, 2017. Retrieved from <http://www.europeanbusinessreview.com/creating-an-omnichannel-supply-chain-for-branded-manufacturers-the-untapped-potential-for-growth/>
- Israelit, S., Hanbury, P., Mayo, R. and Kwasniok, T. (2018). Build a Digital Supply Chain That Is Fit for the Future, Bain & Company, March 13, 2018. Retrieved from <https://www.bain.com/insights/build-a-digital-supply-chain-that-is-fit-for-the-future/>

Jonassen, E. (2018). The impact of AI and the empathy economy on the customer service experience, Customer Experience Update, 28th of August. Retrieved from <http://www.customerexperienceupdate.com/edition/weekly-customer-expectations-nps-2018-08-25?>

Kahn, E. (2018). Forget the algorithms, AI is reading your emotions too, Campaign, June 20. Retrieved from <https://www.campaignlive.co.uk/article/forget-algorithms-ai-reading-emotions/>

Keyes, D. (2018). The Future of Retail 2018: Artificial Intelligence, Business Insider Intelligence, August. Retrieved from [bii_futureofretail_artificialintelligence_2018](http://bii.futureofretail_artificialintelligence_2018)

Khushalani, S. and Woodcock, E. (2018). A next-generation operating model for source-to-pay, McKinsey & Company, December 2018, Operations. Retrieved from [A-next-generation-operating-model-for-source-to-pay.pdf](https://www.mckinsey.com/industries/operations/our-insights/a-next-generation-operating-model-for-source-to-pay)

McLay, S. (2018). AI and the Industrial Revolution Taking Place Right Now, CGF, 27 November 2018. Retrieved from <https://www.theconsumergoodsforum.com/ai-and-the-industrial-revolution-taking-place-right-now/>

Pettey, C. (2018). Gartner Top 8 Supply Chain Technology Trends for 2018, Gartner, February 27, 2018. Retrieved from <https://www.gartner.com/smarterwithgartner/gartner-top-8-supply-chain-technology-trends-for-2018/>

Purcarea, T. (2018). A great success of the Academic & Business Partnership 2018 SCM 4 ECR Conference, Romanian Distribution Committee, 23 Oct 2018. Retrieved from <http://www.crd-aida.ro/2018/10/a-great-success-of-the-academic-business-partnership-2018-scm-4-ecr-conference/>

Ritter, S., Flannery, J. (2009). The Future Value Chain Project, Trends, Opportunities And the Industry Response, ECR Australia Conference 2009. Retrieved from https://www.gs1nz.org/files/1413/7160/1530/Future_of_Supply_Chains_2010.pdf

Viaene, S. (2017). Digital Reality No.1: Customer Experience is Value, September 7, 2017. Retrieved from <http://www.europeanbusinessreview.com/digital-reality-no-1-customer-experience-is-value/>

*** "The Great Retail Bifurcation: An Industry Divided," Deloitte Dbrief webcast, April 26, 2017, cited by Hogan, K., Lobaugh, K., Garf, R. and Young, H. (2018). Retail Renaissance: Redefining the Consumer Experience, Deloitte Digital, Salesforce, March 20, 2018

*** Cranfield Centre for Logistics and Supply Chain Management and EFESO Consulting, Research project, May 2016 - March 2017, Principle Investigator, Co-Investigator: Professor Richard Wilding (PI), OBE; Dr. Farooq Habib (Co-I). Retrieved from <https://www.cranfield.ac.uk/som/research-projects/leadership-and-performance-behaviours-in-next-generation-supply-chains>

*** Supply Chains to Admire – 2018 from Lora Cecere (The Supply Chains to Admire™ analysis is an annual study of supply chain excellence). Retrieved from : <http://supplychaininsights.com/portfolio/supply-chains-to-admire-2018/>

*** CGF End-to-End Value Chain Pillar Organises Second Spring Board Workshop, CGF, 27 September 2018. Retrieved from https://www.theconsumergoodsforum.com/news_updates/cgf-end-to-end-value-chain-pillar-organises-second-springboard-workshop/

*** Assessment of Excellence in Procurement Study, 2014, Procurement-Powered Business Performance, AT Kearney. Retrieved from <https://www.atkearney.com/documents/20152/587529/Assessment+of+Excellence+in+Procurement+Study.pdf/>

*** <https://www.smartbygep.com/insight/procurement-glossary/source-to-pay>

*** Retail Summit 2019 Reveals Its Program, Blue Events, 01.11.2018. Retrieved from <http://www.blueevents.eu/en/news/305-retail-summit-2019-reveals-its-program?>

*** <https://www.cxnetwork.com/about-us>

*** Artificial intelligence: Genuine experience, CX Network, 12/14/2018. Retrieved from <https://www.cxnetwork.com/cx-digital/articles/artificial-intelligence-in-cx#carouselControls>