

How Industry 4.0 can address logistics challenges, opportunities

Supply chain executives from several diverse industries recently gathered at the 7th Annual Eurasian Supply Chain Congress to listen to a broad range of topics, all with a common theme: how do we improve the sustainability and competitiveness of the supply chain in Africa?



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A recurring question emerged among the many speakers and topics: can technology be leveraged to address the challenges and opportunities inherent in the logistics industry? Industry 4.0 is commonly seen as an all-purpose response.

Industry 4.0 is a term that was coined a few years ago in a project in the high-tech strategy of the German government, to indicate the fourth industrial revolution – the interconnectedness of all aspects of manufacturing and distribution. It includes aspects such as, and amongst others, the internet of things (IoT), digitisation, mobile devices, blockchain, big data, analytics and cloud computing.

“ At its core, it is about the digitisation and integration of vertical and horizontal value chains. ”

The benefits are clear

From a logistics industry perspective, the real benefits of Industry 4.0 are clear.

With the volumes of data generated daily and significantly increased transparency, it is possible to anticipate demand, and so prepare more effectively, in turn improving inventory planning, warehousing fulfilment, and distribution. The efficiencies gained as well as the significant cost savings mean that the return on investment in many technology investments can be rapidly implemented and the tangible benefits enjoyed.

Another key benefit is improving communication between suppliers and clients. Customer service expectations have shifted, with customers demanding more real-time visibility over and above the basic expectations of right deliveries to the right place at the right time and in the right condition.

Across the logistics industry, an effective management of customer expectations will become not a competitive differentiator but a stake at the table.

Business basics or foundations need to be in place

It may only be possible to take advantage of the benefits afforded by technology if the business basics or foundations are in place. To be successful in implementing technology to transform operations, organisations need to take several aspects into consideration:

- 1. Proper planning is essential.** Before embarking on any project, supply chain executives need to be clear on the intended outcome of the implementation and have measurable, clear objectives in place.
- 2. Initial and ongoing education is key to ensure sustained success.** The best-implemented projects can fail over time if managers don't consider the need for continual education as well as an understanding, and translation to relevant stakeholders, of changing business priorities. Changing the organisation to become a digital culture requires time and effort.



Industry 4.0 and IoT central to manufacturing transformation

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- 3. Understanding data is critical.** One of the biggest shifts in the application of Industry 4.0 is the wealth, quality and availability of data generated. However, supply chain executives need both a deep understanding of the data and the ability to act on it to bring about real transformation in the organisation. A report is only as good as the insight derived from it.

- 4. Choose the right technology partner.** The technology itself is only one aspect of the solution. It is critical that the solution partner has a deep understanding of the supply chain and logistics industry and application of relevant measures to ensure a solution doesn't become shelf-ware. Both parties need to invest in an ongoing relationship to ensure that the relevant solution is implemented correctly, supported and maintained so that it retains relevancy as the organisation itself transforms.

“ *The advanced connectivity and automation of Industry 4.0 have the real potential to transform the logistics industry, the technology is available now and is no longer just hype.* ”

However, investment in relevant technologies needs to be carefully thought out and planned, in order to gain the considerable advantages afforded by innovative solutions.

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