

AUTOMATION CUTTING COSTS

Technology solutions providers in the UAE are targeting the logistics sector with new solutions to significantly reduce operating costs and increase overall efficiency.



ItemPiQ is setting up a first-of-its-kind centre in Dubai with cutting edge artificial intelligence and robotics technology, taking logistics to a new level of efficiency.

More than a third (38 percent) of UAE retailers quoted warehouse automation and AI (36 percent) as key technology drivers for the future, according to research conducted by Honeywell in partnership with YouGov.

Retailers in Saudi Arabia said the Internet of Things (38 percent) and Big Data (34 percent) will have the biggest impact in shaping the industry moving forward, furthermore, 87 percent of retailers in the UAE and 89 percent in Saudi Arabia who have

adopted new automation technologies said they have seen a positive impact on productivity.

As such, the UAE logistics industry is seeing a shift towards the automation, robotisation and digital integration of storage solutions.

“When we look at the future

of automation in this region, we estimate it will be worth around 313-million euros, we see the e-commerce businesses growing very fast. Currently there are around 26.9-billion euros in the e-commerce sector for this region, but with the potential to growth to 46.2-billion by 2022,” says

Alain Kaddoum, general manager for Swisslog Middle East. “This means the demand for accurate operation and delivery, and faster delivery, will grow. To be able to support this growth and have the right technology we’re integrating AI into our logistics solutions as well as big data. It’s important

to measure the market and how it’s evolving and adapt our solutions. We also want to be able to help e-commerce operators meet the surges in demand during the seasonal peaks like Ramadan and solutions like ItemPiQ and AutoStore will help them do that.”

ItemPiQ is a fully automated picking solution that combines a Swiss-log gripper system with new technology that can pick up to 1,000 items per hour. Driven by the latest version of Kuka Robotics’ Kuka KR Agilus-2, the six-axis lightweight robot has an arm that extends up to 43 inches to reach into bins containing single items.

It also incorporates a vision system that features a 3-D camera and smart image-recognition software that tells the robot how to best grip the items to be picked. Machine-learning capabilities allow the robot to quickly adapt to the array of products being picked, making it ideal



↑ ItemPiQ can be integrated with Swisslog's existing automation solutions.

for retail and e-commerce applications.

"The beauty of this solution is that it can be fully automated, you can pick, put into a delivery box that's packed automatically and sent out for shipment. It's the ideal solution for high-volume e-commerce where you want to reduce the number of touchpoints," says Kaddoum.

Picking is one of the most time- and cost-intensive processes in internal logistics and picking and packing can account for nearly 50 percent of all logistics costs in industrial and commercial logistics and distribution centres.

"ItemPiQ was designed to integrate with the AutoStore solution because of the size of the bin, which is fixed, and operations of AutoStore which is scalable for more stations and robotic integration," says Kaddoum. "The idea is that we have the bin, which is brought by the AutoStore or CycloneCarrier to the sorting station, where the ItemPiQ picks from the bin and fulfils the order."

The core idea of ItemPiQ is that it fulfils orders, it doesn't only pick, Kaddoum adds. "It will fulfil different SKUs from different product lines for the same order. It does this in collaboration with the AutoStore, which is driven by the same software. So it's important to have the right WMS."

According to Fadi Amoudi, CEO of IQ Fulfilment, the back-end of any logistics operation, especially in e-commerce, is the most impor-

↑ Fadi Amoudi, CEO of IQ Fulfilment.



↑ ItemPiQ is designed to do order fulfilment fast - up to 1,000 picks per hour.

tant. "Ask any online business owner, and they will tell you that the real test for any new e-commerce service is being able to provide efficient, correct, and timely deliveries made to the customer," he says. "After all, it's not the seamless user interface that will make or break an online business, but the back end of the platform — the backbone to any digital venture."

Customers don't like delays or mistakes when it comes to their deliveries, and in the age of social media, are quick to air their displeasure. Enterprises often get the design and product development right, but fall short on the delivery and logistics side of things. Things is something that IQ Fulfilment is looking to change.

"We are setting up a first-of-its-kind centre here in Dubai with cutting edge artificial intelligence and robotics technology; we are taking logistics to a new level of efficiency," he says. "We invested in this initiative without the need to sign on any client because we believe in its potential and are confident of its resulting impact on the commerce sector. IQ Fulfilment offers state-of-the-art back end innovation for enterprises, especially those involved with e-commerce."

Amoudi reached out to Quicktron, the Chinese leading intelligent robotics company that supplies the warehouse robots for e-commerce giant Alibaba, and quickly signed a deal with them to be their representative in the Middle East and Africa to set up



↑ Alain Kaddoum, general manager for Swisslog Middle East.

the first robotics fulfilment centre in the MENA region. To do that, he created another IQ subsidiary, IQ Robotics, which provides the robots for the IQ Fulfilment warehouse in Dubai and potential customers in the wider region.

IQ Robotics is redefining boundaries in the supply chain and logistics industry to offer fully automated solutions powered by robotics and AI to change the fabric of the industry. Industries as diverse as pharmaceuticals, FMCGs, and government institutions will be able to make use of this technology.

Amoudi also struck several strategic partnerships across the MENA region with multinational companies such as Honeywell Logistics, to be the regional representative for the latest in logistics software solutions; Damon Technologies for Warehouse Automation; and Locked Air for package protection. This makes IQ Robotics the newest integrator on the block and IQ Fulfilment the first-of-its-kind warehouse in the region with the latest in cutting edge technology, assuring seamless and highly efficient execution. ■

AUTOMATION FOCUS WITH GAUTAM KUMAR, COO & CO-FOUNDER, FAREYE

What's your outlook for automation in the GCC?

The need to scale operations, ensure faster go-to-market and reduce OPEX will drive businesses across industries to embrace automation. The adoption of automation and its impact greatly varies across industries; however, its potential in sectors that are heavily dependent on routine tasks is immense. Therefore, with regards to supply chain, industries like manufacturing, transportation, and warehousing, automation will have a significant impact. According to a research, in GCC and UAE, technical automation potential is greater than 50 percent.

What's driving interest in automation?

The need to track a large number of delivery force, scale delivery operations, plan efficient routes, ensure compliance, accurately predict ETAs and mitigate risks will drive business in the Middle East to embrace automation.

In addition, the world of supply chain is broken down into many silos. Executing a delivery entails involvement of multiple stakeholders like a retailer's own delivery arm, outsourced or third party logistics providers, warehouse management providers, independent truckers and so on. This fragmentation results in a lack of customer visibility, inefficient accountability of shipment ownership, inaccurate delivery KPIs and significant loss of information. Trying to manage all these manually and then trying to integrate these seamlessly into a supply chain is almost impossible. Therefore, there is an urgent need to automate these processes to build a robust supply chain.

What new projects are you currently working on?

Chalhoub Group, the leading retailer of a high-end luxury brand in the Middle East is one of FarEye's clients. They wanted to transform their last mile delivery execution and provide customers an omni-channel experience. To help Chalhoub Group achieve these goals, FarEye introduced the industry's first workflow-automation engine to create



↑ Gautam Kumar, COO & co-founder, FarEye

highly customisable workflows.

Leveraging FarEye's user-friendly app, Chalhoub's delivery executives were able to efficiently manage their day, easily navigate routes, track their tasks on mobile devices and take digital proof of deliveries. Logistics managers, on the other hand, got real-time visibility into ground activities ensuring better control and predictability. FarEye empowered Chalhoub Group to provide high levels of customer engagement and increase their customer satisfaction scores.

What are some of the factors holding back greater adoption of automation?

The logistics and supply chain industry in the Middle East has historically been quite labour intensive, heavily dependent on manual tasks and a slow adopter of technology. However,

the sector is looking forward to some interesting times ahead.

The region's logistics market is expected to reach a value of \$66.3 Billion by 2020. The e-commerce sector is already booming with the Amazon effect starting to change the consumer habits. Therefore, a rapid move towards automation is absolutely necessary.

What is lacking right now is the awareness and presence of efficient digital logistics platforms that allow businesses to automate processes without much changes in the existing system, go-to-market faster, build business driven logistics processes on the fly and also enable them to provide value added services to end-customers. With partnerships with the right automation platforms, the logistics industry can move much faster towards automation.