

# How IoT can transform the local retail sector

It is hard to believe that billions of connected devices and sensors - the Internet of Things - are forecast to be worth a staggering \$US94bn by 2025 in the retail sector.

Already in use in retail outlets around the world, the Internet of Things (IoT) is shifting buying behaviour, managing stock more efficiently, cutting costs, improving security and so much more.

IoT is transforming how the industry handles the economic recession and employee fraud as well as creating experiences that are changing how customers engage with their shopping. As the technology and expertise start to become more accessible in South Africa, the retail sector is looking at how these devices and sensors can help them reshape an uncertain future.

According to Rodney Taylor, chief executive officer of Activate Group, the retail sector in South Africa is under pressure thanks to a mercurial economy, the growth of online sales, the cost of rent and overheads like salaries, and the challenges of theft and fraud.



Rodney Taylor, chief executive officer of Activate Group

"Sales are down because the economy is down," he says.

“*“The box that every retail giant wants to tick is the one that helps them bring down operational costs so they can stay in business while they battle poor customer spend. This is where IoT can really shake things up by providing the insights and control needed for the retail sector to compete more effectively in the local and global market.”*”



## SA retail sales slump in December

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IoT has the ability to fundamentally change how a retail company manages its overheads. Take electricity for example – the cost of power is incredibly high and can be as much as R200,000 a month for the average retailer. The retailer will be dealt an even bigger blow, should Nersa approve the 15% tariff increase Eskom has requested for the next three years. However, with IoT, these costs can be tightly managed and controlled, limiting usage and reducing expenditure.

“Larger retailers can use IoT sensors across all of their energy consuming appliances, electricity, gas, paraffin as well as solar using systems to control usage and manage demand,” explains Taylor.

“For example, if a retailer uses sensors on its air-conditioning system, these sensors can be used to turn off the system at night. This not only ensures that the air-con is only used when needed but it reduces human error – if someone forgets to turn the system off, the sensors do it instead. IoT ensures that items, like fridges, bakery ovens are on when they should be and others, like the air-con, lights or beverage fridges, are off when they should be.”

### **Ways IoT can be used**

IoT systems can also be used to manage energy usage intelligently. When a retailer exceeds specific demand levels for longer than 30 minutes, they have to pay a higher fee to Eskom for the entire month. Using IoT, a retailer can start up systems slowly so demand levels remain optimum, shut systems down when demand levels go too high, and also detect areas of misuse.

If a system is faulty or using too much power, a widespread IoT implementation can detect the problem and rectify it without incurring high costs. In the past, retailers would only receive the total energy bill without any insight into which appliances or areas of the business were responsible for the highest use.



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Mark Thomson 15 Feb 2019



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With IoT, these levels can not only be detected but managed. He says they are already working with a large retail group testing a solution to reduce their energy consumption.

“By using our Active Energy solution in five of their large stores, this retailer has seen a 12 to 17% reduction in their electricity bills and when considering their overall national footprint, this could have a huge impact on their bottom line.”

“In addition to energy control, IoT can also be used to manage employees and their key performance indicators (KPIs),” adds Taylor. “You can use smart tags on trolleys and staff to assess where staff are working, how long they spend in a specific area, and the time they spend on a specific task. This system can also be used to track external contractors, merchandisers and casual workers. Using the tags, the store owner gains an instant snapshot into a person’s activities in the store.”

Not only does this allow for staff movements to be accurately tracked, but it helps retailers to manage issues around theft and fraud. If products start going missing, the system will pick up trends around times of day, areas of the store and types of product.

IoT can also map merchandising, contractors and active workplace management with the simple use of connected tags. This is not only extremely accurate and the data useful for reducing fraud and waste, but they are far less cumbersome than traditional access cards or biometric systems that can be lost or broken. The IoT tags also eliminate the limitations of not having real-time information available, at all times.



### Better connected staff could improve in-store customer experience

11 Dec 2018



“All the information is in one place – the retail manager can see who was in the store, immediately, she can see how many hours they worked and use this information to more accurately control the payroll system,” says Taylor.

### Reduse wasted spend

The potential to reduce wasted spend on costly overheads such as electricity and water, the ability to reduce theft and fraud through accurate identification of individual and time, the capability to connect systems and provide real-time data – these are some of the fairly impressive advantages of IoT.

However, the South African market is not quite at the point of taking over the sector with IoT excellence just yet. There are challenges that are slowing adoption and implementation such as limited availability of skilled individuals to install and manage the systems as well as limited availability of local stock. Many devices still have to be imported and this can delay projects and increase initial investment costs.

“As IoT becomes more prevalent and the benefits increasingly obvious, so will the ubiquity of solutions and skills of local service providers,” concludes Taylor.

“That said, those companies that are already playing in the IoT market have delivered high-end IoT solutions to market that can easily compete on the global market. What we need now is just greater local adoption to ignite local production, so skills and technology are locally built and managed.”

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