WHY AGTECH WILL GROW IN 2021

Whitepaper

JUNIPER RESEARCH

1.2.2 Supply Chain Management

Agtech services for supply chain management target the inefficiencies at each phase of the process. The benefits of Agtech supply chain solutions are not about imposing a stringent supply chain framework. The technology centres on how the digital farming ecosystem can be optimised to eradicate waste and loss at each phase of the value chain. The world population is estimated to grow by 2.3 billion by 2050, so the demand for food is rising. Technologies that address these issues within the digital farming ecosystem will set farmers up for success to meet this challenge.
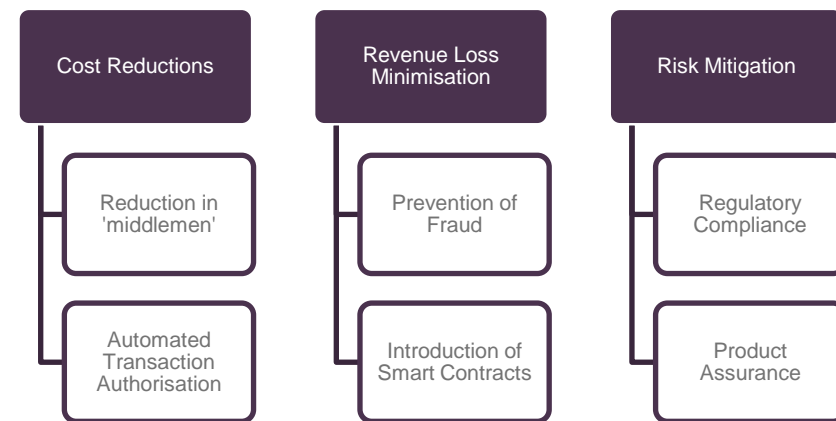
Agtech supply chain management services can bring visibility to the increasing complexity of the global food chain. A leading example is SourceTrace, which provides visibility to the agricultural food chain from farm to retail. Supply chain partners can buy crops, coordinate and monitor handoffs, and track warehouse conditions. The platform provides farmers with the ability to: sell crops and gain fair trade or environmental certifications. Through SourceTrace's retail partners, consumers can scan the QR code of items to find out about the farm and its production processes.

The agricultural supply chain involves several actors across distributors, suppliers and consumers. Juniper Research encourages aspiration to minimise the carbon footprint alongside operational inefficiencies.

The use of robotics is an example of Agtech supply chain innovation. Research by the UK Robotics and Autonomous Systems Network points towards farm robots labelling and tracking products for delivery across the food chain.

Transparency and traceability in the supply chain are increasingly at the forefront of consumer attitudes towards agricultural produce, and are shaping the supply chain like never before. As consumers want more information about where their produce comes from and how it is delivered, more services are rising to meet this challenge. New platforms are making it easy for consumers to retrieve information about the treatment of livestock and the methods of crop farming tied to a particular delivery. Consumer-driven trends like traceability and transparency will continue to shape brand values, so the supply chain must have the technology in place to meet these needs.

Figure 1: Benefits of Blockchain in Supply Management

Source: Juniper Research