

Digital twins report: Limitations

This study proved that a simulation model or a digital twin could be used to demonstrate the benefits of suggested technology or process interventions on existing operations. However, due to covid restrictions the planned visits to any particular abattoir were not possible. Hence, the necessary data to tune the model could not be collected. This prevented us from providing case specific 'what-if' analysis and results.

A user interface is provided for the model to quickly run several scenarios on the technology and interventions. However, layout related interventions would require changes in the model structure itself such as defining the lengths and speed of the conveyors.

While this model provides an excellent starting point for the development of a digital twin, the right sensors and Internet of Things (IoT) technology for live data collection points may change from one abattoir to another based on the machine/technology used. While the model can be connected to a database, interoperability issues between the live data connection technology (sensors, IoTs, cameras) and the databases need to be considered.