HOW HAS DIGITIZATION IMPACTED FARMING INDUSTRY

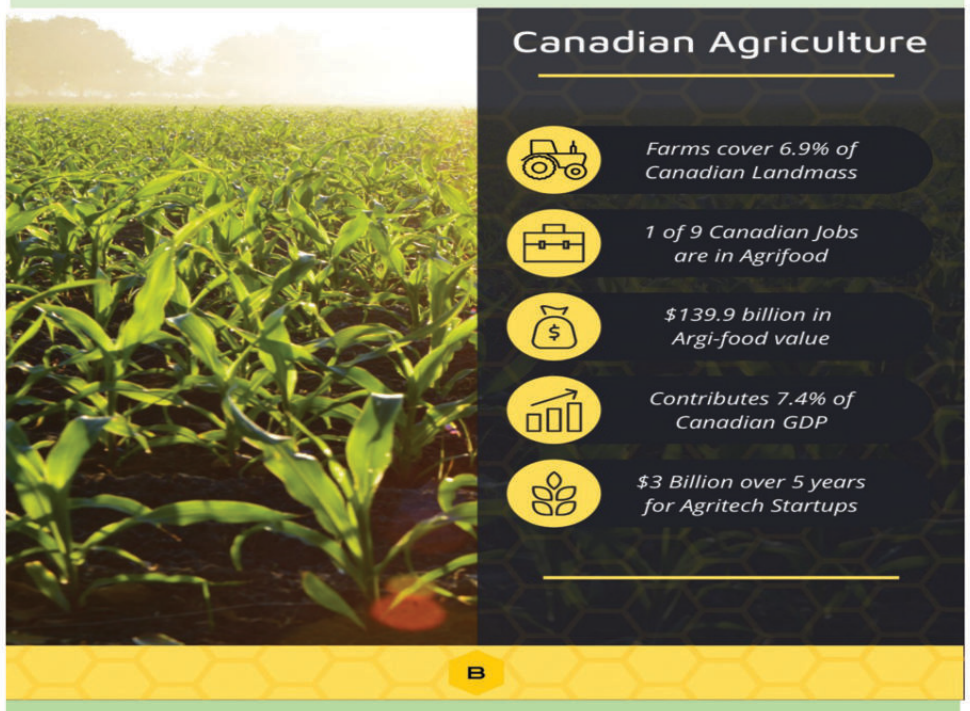
Presented by Avneet Kaur Koharh, Gagandeep Kaur, Mohammed Adnanuddin

From Plows to Pixels: The Digital Revolution in Farming

CONTEXT

Agriculture in Canada's Ontario is very important for its economy as it contributes a lot to the production of food. Even so, Agriculture is facing numerous challenges. The antiquated farming practices used for centuries as the mainstay of agriculture are gradually becoming obsolete with the modern farming generations' needs. These methods rely heavily on manual labor which is becoming scarce because of old age and low interest on jobs related to agriculture among young people. Besides, traditional farming methods are inefficient in resource use such as water and fertilizers leading to problems like soil degradation and water shortage.

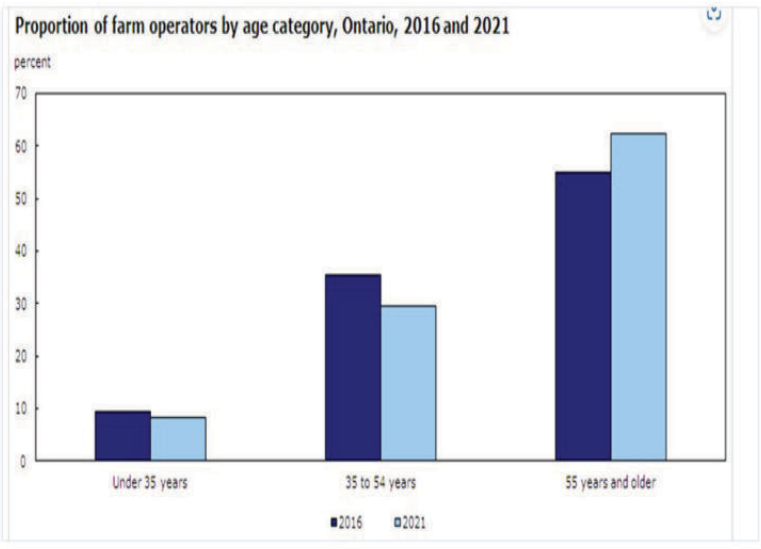
Ontario has recently seen the introduction of several digital technologies into its farms. Some of these technologies include precision agriculture, Internet of Things (IoT) devices, and automated machinery among others all have the potential to overcome some inefficiencies brought about by the use of conventional means. They also enable resource management better, reduce dependence on human labor, and promote



PROBLEM STATEMENT

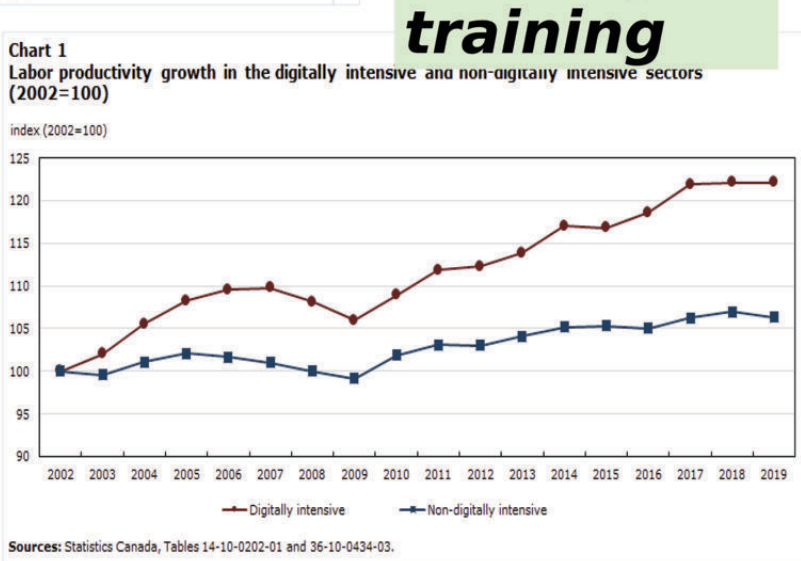
The long-established agricultural practices employed in Ontario lag behind the times and are marred by inefficiency, mainly due to labor inadequacy and sustainability challenges. If digital technologies are not widely adopted, it may be difficult for the agricultural sector in Ontario to feed the ever-increasing population while

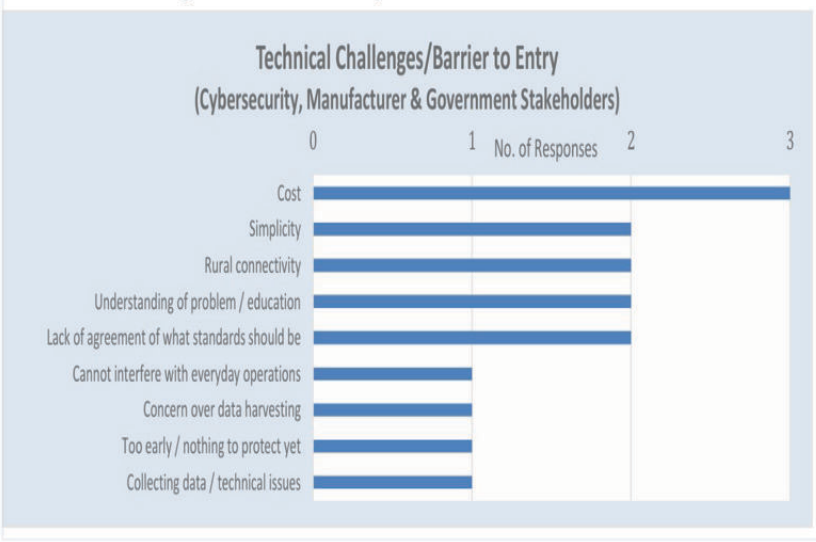
KEY FINDINGS



1 Aging Population makes it difficult for digital farming training

2 60% digital farming adoption in Ontario





3 High cost of adoption and Difficulty in understanding (education) are barriers to accepting digital farming

RECOMMENDATIONS

Invest in affordable digital technologies for farmers

Strengthen infrastructure and internet connectivity in rural areas

Promote inclusive policies to protect indigenous farming practices