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Farmers’ and academia’s views”

The role of cell phone-based apps on cattle farming in Africa: a review

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Abstract

Inefficiency and improving the productivity of animals are the primary challenges of the livestock sectors in Africa. Utilizing ICT (Information Communication Technology) tools is one way to improve efficiency. Through ICT use, cattle nutrition, performance and health can be enhanced and monitored. Despite its significant contribution, ICT for livestock production in Africa is at its early stage of growth.

In Africa, there are approximately 60 mobile-based applications designed for livestock farming. In order of distribution, Kenya is ranked first, followed by Tanzania, Uganda, and Nigeria.

There are six main categories of such applications available in Africa: information generation, livestock farming, financial insurance, market access, supply chain management, and micro-farming intelligence. For example, Esoko for marketing information (used in 15 countries in West & East Africa), Afriscout for pasture and waterholes finding app for pastoralist (Kenya), myAnga for forage and weather forage condition forecasting app (Kenya), Farmable for raising funds to purchase dairy cattle breeds (Ghana), iCOw for market information sharing app (Kenya, Ethiopia, Tanzania), and Cowtribe for animal health tracking app (Ghana).

The Market Oriented Dairy Ration Formulation Tool (MOD-RAFT) developed by the University of Florida, USA, and used in Uganda, and Fodjan, developed by the University of Hohenheim, Germany, is used in Kenya. It is pertinent in this context that the formulation of rations and the levels of energy fed to cows daily (energy fed per cow per day) are crucial for milk production in dairy herds, as feed represents the central portion of costs in milk production (80%).

Mobile penetration and growth in Africa are the highest, which makes mobile-based ICT tools used in agriculture more feasible. Despite their increasing popularity in supporting farm decision-making, few studies have been performed on their adoption, acceptance and determinant factors.

Hence, this poster aims to briefly present the status of cellphone-based ICT tool use in the livestock sector, provide baseline information for further research, and support the digitisation efforts of the livestock sector in Africa by pointing out research gaps.

Keywords:

Keywords: Africa, applications, cattle, cell phone, decision, farming, livestock, tools

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