

SMALL AND MEDIUM DAIRY FARMERS: EXPECTATIONS AND NEEDS FOR ICT ON THE FARM

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Abstract. *Information and communication technologies (ICT) are shaping sectors worldwide, including agriculture. This research investigates small and medium dairy farmers (SMDFs)' expectations and requirements for ICT deployment on their farms, by assessing available literature and prospective research topics to give insight on the possibilities and problems related with ICT adoption in this sector. ICT has the potential to impact the dairy industry by enabling SMDFs to improve production, profitability, and animal welfare. Addressing SMDFs' expectations and needs, including cost, usability, connectivity, and training, is vital for ensuring that ICT becomes a positive change driver in the small and medium dairy farm sector. Our research aimed to systematically review existing literature on the expectations and needs of SMDFs regarding ICT deployment on their farms.*

Keywords: dairy farms; TIC; digital transformation; productivity; animal welfare.

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1. Introduction

The dairy industry is undergoing changes that necessitate farmers to meet higher standards for food safety, biosecurity, and animal welfare [4]. To remain competitive, small and medium dairy farmers SMDFs need to optimize efficiency, improve animal welfare, and enhance decision-making. The rise of information and communication technologies (ICT) is transforming industries on a global scale and the dairy industry is no exception [11]. In the agricultural sector, Information and communication technologies (ICT) are increasingly being recognized for their potential to enhance productivity, efficiency, and animal welfare on farms. Small and medium dairy farmers (SMDFs), who constitute a significant portion of the dairy industry worldwide, stand to benefit considerably from ICT adoption [35].

For small and medium dairy farmers (SMDFs), ICT adoption can be a game-changer, offering tools for better herd management, precise feeding practices, and improved health monitoring. However, to ensure that ICT acts as a positive force for change within the small and medium dairy farm sector, it is crucial to address

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