5.AGRO: DIGITAL PLATFORM FOR THE DEMOCRATIZATION OF RURAL MANAGEMENT AND THE CONSTRUCTION OF AN INTEGRATED AGRIBUSINESS ECOSYSTEM

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Abstract: Rural management in Brazil still exhibits high levels of informality, low digitalization, and strong reliance on manual control systems, particularly among small and medium-sized producers, which compromises technical, economic, and strategic decision-making on farms. In this context, the 5.agro application emerges as a digital platform in the validation and real-operation phase, designed to democratize access to rural management through productive autonomy, data organization, and integration among producers, technicians, cooperatives, and agribusiness companies. Its innovative character lies in the vision of an integrated ecosystem, differentiating it from traditional solutions by enabling unified registrations and similar profiles among users from different locations; integration with other apps like WhatsApp (the primary contact and sales channel for many producers); and features for complete product registration from the farm, with direct sharing of this catalog to WhatsApp for other producers to view, facilitating business transactions — features absent in analyzed competitors. The objective of this paper is to present the proposal, functional structure, and potential of 5.agro as a management tool and digital ecosystem, highlighting its ability to centralize production data, automatically generate zootechnical and managerial indicators, and promote professional and commercial connections. The methodology involved incremental development, validation with 10 users from academic, technical, and rural extension profiles, using evaluation criteria such as usability, usage time, app entries/exits, and number of users; as well as a comparative analysis with competing software, identifying market gaps like the lack of an integrated network. The app supports manual and automated data entry (including Excel import with intelligent reading), generating indicators that facilitate the work of producers and technicians. Preliminary results show 10 active users, with quantitative evidence of usability (recorded usage time and entries/exits), reduced dependence on physical records, and growing adoption of the platform as a central management environment. Furthermore, 5.agro demonstrates sustainable monetization potential through its ecosystem, including targeted advertising, company partnerships, commissions on sales via affiliate links, and a future professional networking system. It is concluded that 5.agro represents a functional and socially relevant innovation, combining accessible technology and a systemic view to modernize agricultural management and empower small and medium-sized producers in the Brazilian agribusiness context.

Keywords: Rural management; Agricultural technology; Digital agriculture; Agribusiness; Smallholder farmers.

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