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*AIDING ENTREPRENEUS THROUGH TECHNOLOGICAL INNOVATION: AN
ANALYSIS OF A RURAL ENTERPRISE OF CANAPÓLIS/MG¹*

**A INOVAÇÃO TECNOLÓGICA NO AUXÍLIO AO EMPREENDEDOR:
ANÁLISE DE UM EMPREENDIMENTO RURAL DA CIDADE DE
CANÁPOLIS/MG**

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ABSTRACT

The study proposes the analysis of how technological innovation helps entrepreneurs in the development of their rural enterprises in the city of Canápolis/MG. In this sense, it seeks to understand everything from what the business is, aspects about the entrepreneur and their motivations to develop it, to the insertion of technological innovations, whether through the use of machines and equipment, or through new production methods, for the effectiveness of their actions. Through qualitative research, with the research strategy of a case study, from the collection of primary data, via semi-structured interviews, and secondary data, such as reports and documents from 'Company X', it is proposed to analyze the use of technological innovations that helped in changes and results achieved by a Rural Producer in the city of Canápolis/MG. To this end, it is understood that it is possible to demonstrate the use of technological innovations that brought improvements in the scope of production, since new forms of production, combined with the use of more modern equipment, have provided benefits and development to 'Company X', with gains in productivity, quality and financial return.

Keywords: technological innovation, entrepreneur, case study.

¹ Received on 26/08/2024. Accepted on 21/09/2024. DOI: doi.org/10.5281/zenodo.17664232

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RELISE

17

RESUMO

O estudo propõe a análise de como a inovação tecnológica auxilia o empreendedor no desenvolvimento de seu empreendimento rural da cidade de Canápolis/MG. Nesse sentido, busca-se compreender desde o que é o negócio, aspectos sobre o empreendedor e suas motivações para desenvolvê-lo, até a inserção de inovações tecnológicas, seja pela utilização de máquinas e equipamentos, seja por novos métodos de produção, para a efetividade de suas ações. Por meio de uma pesquisa qualitativa, com a estratégia de pesquisa de um estudo de caso, a partir da coleta de dados primários, via entrevista semiestruturada, e de dados secundários, como relatórios e documentos da 'Empresa X', é proposta a análise do uso de inovações tecnológicas que auxiliaram em mudanças e resultados alcançados por um Produtor Rural da cidade de Canápolis/MG. Para tanto, entende-se ser possível evidenciar o uso de inovações tecnológicas que trouxeram melhorias no âmbito da produção, vez que novas formas de produção, aliadas à utilização de equipamentos mais modernos, têm propiciado benefícios e desenvolvimento à 'Empresa X', com ganhos de produtividade, qualidade e retorno financeiro.

Palavras-chave: inovação tecnológica, empreendedor, estudo de caso.



RELISE

18

INTRODUCTION

The study proposes an analysis of how technological innovation assists rural entrepreneurs in the development of their businesses. This is particularly relevant for a country like Brazil, whose primary sources of agricultural inputs - namely agricultural commodities - are responsible for a large part of its economic development. Understanding the factors that help entrepreneurs grow their businesses may therefore be one of the key aspects to consider.

The total entrepreneurship rate in Brazil in the year of 2024 was 33.4% (GEM, 2024), which demonstrates that the entrepreneur - someone who “makes things happen,” fulfills dreams, transforms ideas into opportunities, and takes action to achieve goals, generating value for society (DORNELAS, 2019) - plays a fundamental role in the country’s development.

Alongside this are technological innovations, which consist of new products or services, or new processes for producing them, with the goal of achieving strategic advantage (TIDD & BESSANT, 2015; TIGRE, 2006; COCCIA, 2021). According to these authors, it is through technological innovations that better practices can be developed, as they enable improvements in different areas - whether by changing the way a process is carried out, introducing a new machine into the production process, or restructuring the way activities are performed.

Thus, considering how entrepreneurs perceive and use technological innovations for the development of their businesses emerges as an important research perspective. The business in question is an enterprise in the agribusiness sector with local relevance (here referred to as “Enterprise X”). It produces various types of agricultural products, such as soybeans and corn, and is located in the city of Canápolis, Minas Gerais. In the agricultural sector, the company is among those that generate the most jobs and tax revenue for the city.



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The rural environment is a new business for the economy in which there are "new ways of undertaking to face an environment of competitiveness and constant transformation, whether transformation is due to technological innovations or climate change" (SCHINAIDER et al., 2017, p. 45).

In this sense, the analysis of this rural enterprise can provide an in-depth understanding of the dynamics of adopting and integrating technological innovations in traditional environments, contributing to knowledge about the role of such innovations in optimizing production, improving quality, and maximizing the company's financial results.

In light of this, the study presents several aspects for outlining the proposal, covering general aspects of entrepreneurship, rural entrepreneurship, and the characteristics of the types of entrepreneurship mentioned, followed by a presentation of the company and, finally, an analysis of the results obtained through the research.

THEORETICAL FRAMEWORK

Entrepreneurship

The entrepreneur is considered an innovative individual, capable of proposing creative and original solutions to solve problems and make decisions in complex and uncertain contexts (SOOMRO & SHAH, 2015). The act of entrepreneurship involves discovering opportunities, allocating resources, and creating value through innovation and business management. In this sense, Dornelas (2019, p. 2) states that "entrepreneurship can be defined as the act of fulfilling dreams, transforming ideas into opportunities, and taking action to achieve goals, generating value for society." This emphasizes the importance of identifying opportunities as a fundamental component of entrepreneurship.



RELISE

20

Furthermore, entrepreneurship involves exploring and taking advantage of opportunities related to value-added products, based on an analysis of the economic, social, and cultural context. Therefore, entrepreneurship can be seen as an opportunity for the development of leadership and responsibility skills (WENG, CHIU & TSANG, 2022). According to GEM (2024, p. 3), "entrepreneurship refers to any attempt to create a new venture, which may include self-employment, new businesses, or the expansion of existing businesses."

According to Dornelas (2020, p. 5), the evolution of entrepreneurship "has become possible not only due to the intensification of technological development and technological innovations, but also because of the promotion [...] of technology transfer from technology development centers to productive sectors." Moreover, due to its influence on economic and social development, the study of entrepreneurship has gained increasing attention in recent decades. Regarding technological development, Garcia (2014) points out that in many agricultural activities are characterized by greater dynamism in the use of technological innovations. (such as soybean, corn, cotton, and sugarcane cultivation, among others), with increased demand for skilled labor.

Therefore, it can be stated that entrepreneurship refers to the process of identifying, developing, and exploiting business opportunities with the goal of creating value and generating a positive impact in the market. Entrepreneurs are visionary individuals who seek innovation, take calculated risks, and strive to transform ideas into successful projects. This mindset goes beyond merely creating businesses - it also involves the ability to identify opportunities, adapt to changes, and promote sustainable development.

Rural entrepreneurship



RELISE

21

Rural entrepreneurship refers to the application of entrepreneurial principles to activities that take place in rural and agricultural areas. It involves the ability to identify problems and opportunities related to the rural sector and transform them into beneficial solutions for society as a whole - this is also known as agribusiness. According to SEBRAE (2024, n/p), "rural entrepreneurship is the practice of developing businesses and innovations in the field, promoting new solutions and methods that improve production, management and sustainability in the agricultural sector".

The rural entrepreneur is someone who demonstrates distinct capabilities compared to other rural producers; in other words, they have a competitive edge in terms of the skills and competencies applied in the day-to-day management and production activities of their property (BRACHT & WERLANG, 2015). Bahiense et al. (2025) emphasize that a rural entrepreneur may seek adaptations in their agricultural enterprise, with a view to discovering new markets and/or expanding their operations.

According to Alabi and Famakinwa (2019), rural entrepreneurship is defined as a key driver of rural economic development, adding value to resources in rural areas and encompassing various activities, such as agriculture, commerce, and industry. They also highlight that, since rural and agricultural areas are essential for finding sustainable solutions and supporting the global economy, rural entrepreneurship is gaining prominence in the modern world.

Por sua vez, para Bahiense et al. (2025), o pequeno agricultor familiar, para sustentar-se e possuir uma melhor rentabilidade em sua propriedade, precisa ter uma diversificação em sua produção, aliada a um melhor rendimento e produtividade. In this way, the production and commercialization of diversified products create opportunities for better use of resources on farms and new, higher sources of income, aiming to meet market demands (LIMA, 2015).



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Agribusiness is a pillar of the Brazilian economy, accounting for nearly one-quarter of the country's Gross Domestic Product (GDP), with crops such as soybeans and coffee from industrialized farms among Brazil's most important exports. The country has millions of family farmers, whose combined annual revenue totals USD 55.2 billion (UN BRAZIL, 2019). In 2025, according to the Center for Advanced Studies on Applied Economics (Cepea/Esalq/USP) in partnership with the Brazilian Confederation of Agriculture and Livestock (CNA), the GDP of the agribusiness production chain it can represent 29.4% of Brazil's total GDP (CEPEA, 2025).

According to Zanatta and Berkmann (2017) and Kharga et al. (2021), due to their economic and social relevance, family-owned rural properties increasingly need to professionalize their management and adopt tools that optimize costs and maximize revenue. This is because innovative entrepreneurs in the agricultural sector can bring new technologies and practices to improve the productivity and efficiency of their businesses, leading to increased production and profitability (Kharga et al., 2021; Trevelato et al., 2018).

When analyzing the role of rural entrepreneurs, one can identify activities such as providing services, selling products, and creating applications to support agriculture. Rural fields and communities are much more than mere centers of agricultural production - they represent spaces of opportunity, innovation, and value creation.

Characteristics of the entrepreneur and the rural entrepreneur

Entrepreneurs are individuals who possess unique characteristics and skills that enable them to start, develop, and manage businesses successfully. They see opportunities that others cannot and are constantly seeking ways to improve processes and make people's lives easier. Courage is one of their virtues, along with the ability to take calculated risks after carefully weighing the



RELISE

23

pros and cons. Entrepreneurs are excellent managers capable of handling a wide range of tasks - from leading teams to managing finances (DORNELAS, 2020).

The entrepreneur is recognized for certain defining characteristics. On this point, Dornelas (2019, p. 4) states:

The act of entrepreneurship often requires a cool head, tolerance for failure, resilience, among other attributes. These traits, or characteristics, combined with initiative, risk-taking ability, vision for the future, leadership spirit, organizational skills, and planning for the next steps (...) People develop competencies, skills, and acquire knowledge and experience throughout life. All of this is what shapes the entrepreneur's profile.

Furthermore, according to Dornelas (2023), the main characteristics of successful entrepreneurs can be summarized as follows: they are visionary, decisive, make a difference, explore opportunities, are determined, dynamic, leaders, risk-takers, and create value for society. The characteristics of these entrepreneurs are presented in Chart 1.

CHART 1 – Characterization of the Entrepreneur.

Characteristics	Description
Initiative and pursuit of opportunities	An entrepreneur must anticipate events, creating opportunities through new products and services. By being proactive and resilient, they are able to make progress even in adverse situations, such as during times of crisis.
Persistence	Being persistent is crucial for entrepreneurial success, as it allows one to face obstacles without giving up. Reassessing goals, modifying plans, and even changing the business model are strategies that can be employed to overcome challenges.
Risk calculation	Every entrepreneur faces various risks, whether predictable or unforeseen, including economic issues, supplier problems, or infrastructure challenges. Mapping, calculating, and planning for these risks to avoid disastrous consequences are essential traits. By anticipating and forecasting business challenges, entrepreneurs can mitigate problems, reduce errors, and increase their chances of success.

Continues



CHART 1 – Characterization of the Entrepreneur - continuation

Characteristics	Description
Concern for quality and efficiency	An entrepreneurial mindset constantly seeks improvements in the business, whether in product and service offerings or internal processes. Customer satisfaction is a top priority, highlighting the importance of quality management. Entrepreneurs often demonstrate balanced perfectionism, high standards for their teams, and attention to detail.
Commitment	Entrepreneurs stand out for their commitment, which involves personal sacrifice, teamwork, and dedication to clients. They take on most of the responsibilities - from success to failure - and work closely with their teams to achieve results and maintain strong relationships with customers
Information seeking	Successful entrepreneurs are constantly active, seeking information about their business, customers, suppliers, and competitors. They stay updated across all areas of their operations and explore new ways to offer products and services, often relying on expert support.
Goal setting	To achieve objectives, it is essential to define clear short- and long-term goals - challenging yet attainable and measurable. This allows entrepreneurs to evaluate results and track progress toward their established objectives.
Systematic planning and monitoring	Without a doubt, entrepreneurship requires strong skills in planning, organization, and task management. From the very beginning of the business, it is essential to organize activities with defined deadlines to measure and evaluate results. An organized entrepreneur tackles challenges step by step, adapting quickly to market changes or variables.
Persuasion and networking	A successful entrepreneur possesses persuasive power, which is essential for selling high-quality products or services. This involves using strategies to influence people and build a network of relationships that help achieve business goals. Establishing contacts and developing business relationships are key skills for entrepreneurs.
Independence and self-confidence	The entrepreneur takes on multiple responsibilities in all stages of the business, requiring independence to drive the company's growth. This dynamic demands self-confidence to make strategic decisions, face challenges, and take risks with optimism and determination.

Source: SEBRAE, 2022. Dez características de um empreendedor e como adquiri-las. Available in: <<https://www.sebrae-sc.com.br/blog/caracteristicas-de-um-empreendedor>>. Accessed on: 05 Nov., 2025.



In turn, rural entrepreneurs tend to have the same characteristics as these entrepreneurs; however, some are specific to their niche. Rural producers are individuals who have control over production and who add value to the final product, innovating production methods through the combination of available resources (LIMA, 2014).

Entrepreneurship manifests itself differently in the daily lives of entrepreneurs and rural entrepreneurs. While entrepreneurs operate in diverse urban environments and often depend on financial resources and technological innovation to accomplish tasks, rural entrepreneurs operate in more specific contexts, depending on natural resources and emphasizing sustainable agricultural practices. The differences also include the link with the community, the risks faced, and the business cycles. Both play crucial roles in the economy, contributing to sustainable development (SENAR, 2014).

These distinctions highlight how context influences the characteristics and challenges of entrepreneurship, noting that even if the characteristics are similar, the environment in which the entrepreneur is embedded will be reflected in the actions taken by the entrepreneur. According to SENAR (2014), the rural entrepreneur is characterized as shown in Chart 2.

CHART 2 – Characterization of the rural entrepreneur.

Chaaracteristics	Description
Sees opportunities	With a sharp and distinct vision, the entrepreneur identifies business opportunities within the rural environment.
Has the ability to start over when necessary	The environment in which they operate is not a major obstacle; they know how to work with both favorable and unfavorable factors.
Ability to sell their product in a unique way	Knows how to negotiate products or services effectively to achieve better results.
Understands market needs	Identifies what products, quality standards, prices, payment methods, and other factors are demanded by the market.



CHART 2 – Characterization of the rural entrepreneur - continuation

Chaacteristics	Description
Has a strong network of relationships	Knows how to interact with employees, suppliers, and customers - that is, with everyone involved in the entrepreneurial process.
Holds firm opinions	Maintains their opinions regardless of the situation or the environment in which they plan to establish their business.
Persistent	Does not give up in the face of adversity and challenges.
Takes risks	Accepts personal responsibility for the possibility of failure.
An enthusiastic leader	Demonstrates enthusiasm when new opportunities arise or when implementing improvements in an existing business.
Driven to grow continuously	Shows a strong determination and ambition for success.

Source: SENAR, 2014. Programa empreendedor rural. Available in: <<http://senarms.org.br>>. Accessed on 01 Jul., 2024.

Therefore, the entrepreneur possesses certain characteristics and works with available resources, overcoming obstacles often posed by the environment in which they operate, carrying out their activities in unpredictable situations, especially considering climatic factors that influence the production of assets, increasing or decreasing production capacity and thus affecting profits. Like an urban enterprise, a rural one will also depend on the characteristics and knowledge of its entrepreneur to achieve the best results.

METHODOLOGY

The study adopts a qualitative approach. This type of research allows for an in-depth exploration of the subject in question, aiming to obtain insights that help understand the phenomenon being studied from the perspective of the research participants (YIN, 2015; MARTINS & THEÓPHILO, 2009).



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Accordingly, through qualitative research using a case study strategy, which enables the understanding of “how” and “why” (YIN, 2015) a given phenomenon occurs, the study proposes an analysis of the use of technological innovations that have led to changes and outcomes achieved by a rural producer in the city of Canápolis, Minas Gerais.

It is important to note that the case was purposefully selected due to the local relevance of the enterprise. Furthermore, it is understood that the entrepreneurial rural producer can contribute to the development of their business based on their distinctive characteristics. In addition, the case study approach makes it possible to understand the reality of the enterprise, taking into account any technological innovations that may have been adopted to improve operational performance.

In this context, to understand how technological innovation assists the entrepreneur in managing their business, primary data collection was carried out through semi-structured interviews (YIN, 2015) to gather information relevant to the research. Additionally, secondary data were collected through document analysis, including reports, records, and databases (MARTINS & THEÓPHILO, 2009). A noteworthy point is that the study was reviewed and approved by the university's ethics committee in 2024.

Therefore, an interview was conducted with one of the enterprise's key representatives - the business manager. The interview guide was developed based on the following categories and analytical elements, defined prior to data collection (Chart 3).



RELISE

28

CHART 3 – Categories and elements of analysis

Category	Elements de análise	References-base
Characteristics of an Entrepreneur	Has the skills to start and restart if necessary; can see market needs; has a good network of relationships; persistent; visionary, decision-makers, make a difference, explore opportunities, are determined, dynamic, leaders, take risks, create value for society	Senar (2014); Dornelas (2019; 2020) ; SEBRAE (2024); GEM (2024).
Characteristics of technological innovations	They are innovative; add value; provide improvement in the development of activities	Tidd; Bessant (2015); Tigre (2009) ; Coccia (2021)

Source: The authors (2024).

It is worth noting that the invitation to participate in the research was made virtually before the interviewee's participation and data collection began. Essentially, the proposal consisted of sending the interviewee a set of pre-established written questions so that they could review and respond at their convenience.

The interview with the company representative was conducted entirely via WhatsApp. Initially, the research-related article was presented, with a detailed explanation of the study's objectives and relevance. Next, a list of questions to be addressed during the interview was sent so that the representative could prepare in advance. In addition, the free and informed consent form for participation in the research was provided, ensuring that all necessary information regarding participation, confidentiality, and data use was clearly presented.

Three contacts were made with the interviewee throughout the process, all of which took place in July 2024. The entire procedure was conducted with full transparency and in compliance with ethical standards, ensuring the integrity of the research process. Continuous communication via WhatsApp allowed the representative to respond to the questions at their own convenience.

For the analysis, content analysis was employed, encompassing the stages of pre-analysis, material exploration, and data processing and interpretation (BARDIN, 2016), in order to interpret the data and identify relevant



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analytical categories. Moreover, the research followed a research protocol, based on the identified analytical categories, to ensure the potential replicability of the study (external validity).

COMPANY PRESENTATION

“Company X” is located in Canápolis, Minas Gerais, where the business operated informally for some time before officially registering in 2018. The company’s owner, who was raised in a rural area, began his journey as a child working alongside his parents, who were farmers. Over time, he went through several stages - working on small farms, being employed by other farmers, and eventually dedicating himself exclusively to his own business. According to the interviewee: He kept moving forward, gradually expanding the crops. He’s a very hard worker - he used to do everything himself, without employees—and he grew the business to where it is today.”

The trajectory of “Company X” developed gradually. Around 2010, the cultivated area was smaller, and the main crops were cassava and okra. However, in 2015, the focus shifted to soybean cultivation. The main goal was to farm sustainably and at low cost, in order to achieve success and profitability.

With family-based management, the company seeks to reduce expenses and maximize profits. As a result, the company strives to maintain a well-trained team capable of operating advanced technologies, both in machinery and in soil and seed analysis. Its core values include innovation and entrepreneurship, with operations centered on the cultivation and production of soybeans, using the most modern tools available in the agribusiness sector to foster growth, technological implementation, and soil research.



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RESULTS ANALYSIS

“Company X” is an example of family entrepreneurship in the rural lands of Canápolis, Minas Gerais. The founder, raised in the countryside, began his journey as a child alongside his parents, who were farmers. From an early age, he was in direct contact with the reality of agricultural work, learning about the characteristics of this field and mode of production. In this way, the entrepreneur developed skills that, according to Dornelas (2023), are essential for shaping an entrepreneurial profile - such as responsibility, organizational capacity, planning, hard work, determination, and dynamism. He cultivated these competencies throughout his life as he gained knowledge and experience (DORNELAS, 2019).

This life trajectory, which led to his development as an agricultural entrepreneur, took shape as he moved through different contexts - working on small farms, being employed by other farmers, and eventually emerging as a leader in soybean production in the region. This career progression and the possibility of becoming a regional reference in agriculture had always been his dream, which was realized in 2018 with the creation and registration of his company. As he stated: “Those of us who live in rural areas keep planting, keep growing, and always have the opportunity to expand our crops”. This aligns with Alabi and Famakinwa’s (2019) and Bahiense et al. (2025) argument that rural entrepreneurship serves as a foundation for economic development.

Although profit was a future goal, the beginning of the company’s development stemmed from a desire to cultivate the land and from the joy of farming - motivated by passion and a strong work ethic. The founder’s work experience reflects what Bahiense et al. (2025) identifies as common in rural settings, in smaller properties, most functions fall to the farmer-owner, who consequently develops technical skills through hands-on learning in the production process. Moreover, as time goes on, the entrepreneur builds new



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competencies alongside the business's growth (BRACHT & WERLANG, 2015; KHARGA et al., 2021).

Often working alone, the founder managed day-to-day production activities and identified opportunities for expansion, dedicating himself to acquiring more professional knowledge and expertise in his field in order to implement improvements in the company. This proactive stance is highlighted by KHARGA et al. (2021) as essential for agricultural entrepreneurs, who must specialize and diversify in order to refine their strategies and pursue new results. Thus, it becomes clear that his passion for farming - passed down from his parents - became the driving force behind the development of a successful entrepreneurial profile, viewing his work as a legacy to be shared with future generations. As he explained: "The more the business grows, the greater the chance of being here in the future with my children and maybe my grandchildren".

Today, Company X operates with a dedicated team and cutting-edge technology - both in machinery and in soil and seed research - that distinguishes it in the market. The company's commitment to quality and innovation is evident at every stage of production. Moreover, it takes pride in contributing to the sustainable development of the local community. According to Magalhães, Ramos, and Bezerra (2024), such practices not only increase the resilience of family farmers but also promote natural resource preservation and biodiversity.

In the context of technological innovation, the importance of adaptation to change is evident. As the interviewee described:

In any environment or activity you're in, you have to keep adapting to new technologies, new seed varieties, precision agriculture, checking what the soil needs, rotating crops. We must adapt to new technologies and management techniques. That's what we do - our machines all have GPS, all have autopilot, all equipped for precision agriculture. We're always seeking the latest technology for our crops, for planting and management processes, always staying up to date.

Precision agriculture, the use of GPS in agricultural machinery, and internet connectivity are integral to the company's operations. These



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technologies not only enhance efficiency but also reduce costs, enabling more sustainable and profitable production. The introduction of autopilot in tractors and GPS-guided seeders illustrates the company's commitment to operational excellence. By adjusting fertilization according to each area's specific needs, it promotes intelligent land management. The pursuit of efficiency is continuous, as seen in the monitoring of resource consumption on the property. As the entrepreneur explained:

We have tractors connected via the internet to monitor their fuel consumption. We're adopting all these technologies to improve field efficiency and reduce costs for better profitability. Everything we do is aimed at improving field performance and management efficiency for better returns.

The entrepreneur's technological investment decisions have proven beneficial for the company's development and results. He added:

Technology has greatly improved efficiency in the field - we've reduced planting time, made better use of the planting window, and optimized operations with the new equipment. We really took advantage of that ideal planting period with the help of these technologies.

This significant improvement in the rural enterprise aligns with the perspectives of Tidd and Bessant (2015), Tigre (2006) and Coccia (2021), who emphasize the importance of technological innovation at various stages of the production process. Furthermore, the entrepreneur's visionary mindset stands out in other areas of rural entrepreneurship. As Zuin and Queiroz (2010) note, enterprises in this sector face multiple variables, such as plant and animal biological cycles, product maturation times, and perishability. These challenges were met through strategic decisions that demonstrate his business acumen - such as renting a grain silo, which allowed for strategic storage and sale of products during periods of higher demand, optimizing profitability and maintaining product quality.

However, challenges persist, with the scarcity of skilled labor being a significant obstacle. As the entrepreneur stated:



RELISE

The main difficulty is always finding qualified workers. When we don't have them, we use our own knowledge to train and teach them. So, the biggest challenge is really the workforce. Nowadays, finding qualified people here in our region is a bit harder.

Research by Garcia (2014) confirms that this challenge is common in many agribusiness ventures, as production and organizational processes in the sector have undergone major socio-technical transformations, increasing the need for a specialized workforce. Yet, barriers to training and education in rural areas have led to a shortage of qualified labor.

The entrepreneur faces this challenge head-on by investing in training and professional development for his employees, demonstrating his commitment to local development and the growth of his company. As Trevelato et al. (2018) explain, one of the main reasons to invest in workforce training is to improve organizational productivity. Properly trained professionals acquire or refine the skills necessary for their work, becoming more qualified and delivering better results for the company.

When discussing future perspectives, the entrepreneur maintains an optimistic outlook, confident in the sector's adaptability and potential. Even amid market fluctuations and political changes, his belief in continuous improvement remains strong. His approach to the challenges and opportunities typical of the agribusiness sector reveals a self-confident and persistent profile.

Thus, the story of this Entrepreneur is a testament to perseverance, passion for agriculture, and an innovative approach to overcoming the challenges of the rural sector. His journey serves as an inspiration and reflects the commitment required to thrive in a dynamic and demanding environment. The company's dedication to quality and innovation is evident in every stage of production, and it continues to take pride in its contribution to the sustainable development of the local community.



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FINAL CONSIDERATIONS

This study aimed to analyze the impact of the introduction of technology and innovation in the context of an agricultural enterprise, examining how such transformations influenced the company's performance. In addition, it investigated the different processes involved in production and commercialization, the innovations implemented, their impact on job creation and rural labor, and the economic results achieved by the organization.

"Company X", a family business located in Canápolis, Minas Gerais, has proven to be led by a farmer deeply connected to agriculture since childhood. This demonstrates that the entrepreneurial drive - the desire to create and develop one's own business - is deeply rooted in the rural producer. It is no coincidence that he strives to develop and expand his enterprise through the adoption of new technologies, seeking creative solutions to solve problems and expand the business.

The company stands out in the region for its adoption of advanced technologies, such as precision agriculture and GPS systems, which enhance efficiency and sustainability, resulting in financial gains and reduced waste. The integration of GPS technology in agricultural machinery and the adoption of precision farming practices have brought numerous benefits, boosting both operational efficiency and environmental and economic sustainability.

The use of GPS technology has yielded multiple benefits - for example, the precise application of inputs such as fertilizers, pesticides, and water only where they are truly needed, avoiding waste and reducing costs. GPS-equipped agricultural machinery can follow optimized routes, saving fuel and reducing greenhouse gas emissions. These technologies also help control irrigation systems, ensuring that water is evenly distributed and applied only where necessary, minimizing waste and improving water-use efficiency. Consequently, this efficient use of water contributes to the conservation of water resources and



RELISE

environmental sustainability. It is worth highlighting that, since implementing the aforementioned technologies, the rural enterprise has achieved an increase in profitability of approximately 20% compared to when less technology was used.

These technological advancements support smarter and more responsible management of natural resources, fostering more productive and sustainable agriculture in the long term. The environment is cared for, production is optimized, and the development of productive aspects is enabled. Therefore, the results support the need for continued investments.

The possibility of using technological innovations such as modern machinery and equipment, combined with new production methods, helps address a key challenge in agriculture: the shortage of qualified labor. Despite this issue, the entrepreneur invests in training his employees to operate new equipment, ensuring that they feel like active participants in the business. By investing in technology and training, the entrepreneur not only mitigates the shortage of skilled labor but also creates a more modern, safe, and attractive work environment - one in which employees feel valued and integrated into the enterprise.

With an optimistic vision for the future, the entrepreneur demonstrates confidence and persistence, continuously striving to help his business prosper and achieve positive results - such as improved water resource management, increased productivity, and higher profits. This optimistic and confident attitude is rooted in his life story and journey from the early stages of rural production to his consolidation as a leader in regional soybean cultivation. The complexity of his journey reflects not only a passion for agriculture but also adaptability and a commitment to efficiency and quality.

By operating sustainably at the local level, "Company X" demonstrates a clear commitment to developing and maintaining practices that respect the ecological and social limits of its community and region. This means adopting



RELISE

measures that promote the responsible use of natural resources, reduce the ecological footprint, preserve local biodiversity, and enhance the well-being of the people who live in the area. In doing so, available resources are used conscientiously, with a focus on minimizing negative impacts and maximizing benefits for both the environment and the community. Moreover, being locally sustainable encourages a more resilient and inclusive economy, promoting local development.

Throughout the study, it became evident that entrepreneurial spirit is more than a personal trait - it is a driving force capable of shaping the future by seizing opportunities even in the face of adversity. Furthermore, this research contributes to the understanding of how passion for one's profession drives the pursuit of innovation and continuous improvement in rural enterprises, even amid uncertainty.

Another key finding of this study is that the incorporation of technology - whether cutting-edge or not - emerges as an essential ally in this process. Technology not only saves time and money but also improves the quality and efficiency of production while facilitating the daily work of employees. The case analyzed demonstrates that by investing in technology, team development, and sustainable management practices, "Company X" not only optimizes its production but also contributes to the economic and social development of its local community, thereby showcasing the transformative potential of rural entrepreneurship combined with technological innovation.

Regarding the study's development, it is important to acknowledge certain limitations, such as the focus on a single case study, which may introduce potential biases from researchers or from how the data were interpreted and analyzed. Additionally, a single case study does not allow for analytical generalization, as its findings are specific to the context of the case itself.



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For future research, it is suggested to analyze the impact of rural enterprises and their entrepreneurs on local development, identifying the characteristics and motivations of both the businesses and the entrepreneurs. This could help clarify key factors that drive business development and regional growth. Understanding what makes an enterprise innovative - especially through technological innovation - could shed light on: i) which innovations are adopted; ii) the reasons entrepreneurs choose to adopt them; and iii) the benefits and potential drawbacks these innovations bring to business development.

In conclusion, the story of “Company X” serves as an example of the transformative potential of rural enterprises and the crucial role entrepreneurs play in their development - particularly through the strategic use of technological innovations to stimulate economic and social growth. The strategic application of technology can accelerate both growth and sustainability within the agribusiness context and the surrounding environment.

Therefore, this study contributes to the academic literature by providing insights into how such enterprises impact their environment and community, deepening the understanding of how rural entrepreneurship and innovation can shape sustainable and inclusive development.

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