



The Competency Profile of Women Managers in Family Agro-Industries in Mato Grosso do Sul

O Perfil de Competências da Mulher Gestora em Agroindústrias Familiares de Mato Grosso do Sul

Larissa dos Santos Barros Tsuji: Universidade Federal da Grande Dourados, MS, Brasil. E-mail: laryssa.dsb@gmail.com. 

Erlaine Binotto: Universidade Federal da Grande Dourados, MS, Brasil. 

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Abstract

Women have played a fundamental role in Brazilian agribusiness, particularly in family-run agro-industries, where they assume central responsibilities in both production and management. This study aimed to understand the competencies that shape the professional profile of women managers in family agro-industries in Mato Grosso do Sul, as well as the management practices they adopt. A qualitative, exploratory, and descriptive approach was employed, based on ten semi-structured interviews conducted between February and March 2025 through in-person meetings, video calls, and voice calls. Participants were selected through contacts at fairs and events, as well as by snowball sampling until theoretical saturation was reached. The analysis followed the principles of Grounded Theory, using open and axial coding supported by ATLAS.ti software. The findings indicate a collaborative and adaptive management style, grounded in the division of responsibilities and intergenerational involvement. The results highlight the importance of training offered by public institutions, traditional knowledge, practical experience, support networks, and self-directed learning. The managers demonstrate competencies such as entrepreneurship, strategic vision, assertive communication, leadership, resilience, networking, innovation, ethics, people management, and emotional intelligence, which together form a multifaceted profile aligned with family and production dynamics.

Keywords: Women Managers. Family Agro-Industries. Competency Profile. Family Farming. Sustainable Development.

Resumo

As mulheres têm tido papel fundamental no agronegócio brasileiro, sobretudo nas

agroindústrias familiares, nas quais elas assumem funções centrais tanto na produção quanto na gestão. Este estudo teve como objetivo compreender as competências que compõem o perfil profissional de mulheres gestoras de agroindústrias familiares em Mato Grosso do Sul, bem como as práticas de gestão adotadas por elas. Adotou-se uma abordagem qualitativa, de caráter exploratório e descritivo, com dez entrevistas semiestruturadas realizadas entre fevereiro e março de 2025 por meio de encontros presenciais, videochamadas e ligações de voz. As participantes foram selecionadas por contatos em feiras e eventos, bem como por amostragem em bola de neve até a saturação teórica. A análise seguiu os princípios da Teoria Fundamentada em Dados (Grounded Theory), com codificação aberta e axial, apoiada pelo software ATLAS.ti. Os resultados indicam uma gestão colaborativa e adaptativa, baseada na divisão de responsabilidades e no envolvimento intergeracional. Evidencia-se a importância das capacitações por instituições públicas, dos saberes tradicionais, das experiências práticas, das redes de apoio e da autoformação. As gestoras demonstram competências como empreendedorismo, visão estratégica, comunicação assertiva, liderança, resiliência, articulação, inovação, ética, gestão de pessoas e inteligência emocional, compondo um perfil multifacetado e alinhado às dinâmicas familiares e produtivas.

Palavras-chave: Mulheres Gestoras. Agroindústrias Familiares. Perfil de competências. Agricultura Familiar. Desenvolvimento Sustentável.

1 Introduction

The female presence in agribusiness focuses mainly on agro-industries and agroservices (Cepea, 2018). According to the Ministry of Agriculture and Livestock, the agroindustry aims to transform agricultural, agricultural, aquaculture and forestry raw materials, expanding their durability, reducing the seasonality of production and adding value to the in natura products, preserving their original characteristics (Brasil, 2021).

In this context, family agro-industries emerge as a strategy of diversification and strengthening of family agriculture, initially motivated by the need for better use of local production and loss reduction. Over time, they consolidated themselves as important mechanisms of income generation and value aggregation to the products cultivated by rural families, and the commercialization of the surplus recognized as a form of family agro-industry (Froehlich *et al.*, 2019; Silva; Santos; Ponciano, 2018;).

In Mato Grosso do Sul, the most recent data identified on the amount of agroindustries corresponds to the year 2021. During this period, 122 active agro-industries were registered in PROVE (Program of Verticalization of Small Agricultural Production), a program of the State Government focused on the support of small rural productive units that seek to add value to their products. These agroindustries were distributed in 38 municipalities, with productive emphasis on Jaraguari, Campo Grande, Terenos and Sidrolândia (Semadesc, 2021).

In family agro-industries, production, processing and management remain under the responsibility of family members. In this model, ownership and management remain familiar, Ensaios e Ciência, v.30, n.1, p.134-151, 2026.

and strategic and operational decisions are taken collectively, consolidating the family core as the main manager of the rural business (Cater; Justis, 2010; Zachow; Plein, 2018). Faced with this scenario, women have assumed leadership roles, overcoming the view that they would be restricted to production. The term “manager” shows its performance in decision-making, strategic planning and resource management (Siliprandi, 2015).

It is common for women in family agro-industries to assume multiple functions, from the acquisition of materials to the processing and marketing of products. In addition, these women often organize themselves into associations, cooperatives, unions or networks of solidarity economy (Embrapa, 2017).

Understanding the skills profile of these managers is essential to highlight their skills and the value they add to organizations. Professional competence combines knowledge, skills and attitudes, allowing high-quality work performance (Knapik; Fernandes; Sales, 2020). For McClelland (1973), competency results from the combination of gifts, natural talents, skills, practical application of these talents and knowledge necessary to perform a task.

Competency can be understood as a set of social and communicative learning that involves the ability to mobilize, integrate and transfer knowledge, resources and skills in specific professional contexts, as proposed by Le Boterf. In this perspective, Zarifian defines it as the ability to apply the knowledge acquired to solve practical problems. Delors (1999) adds that, in addition to technical training, it is necessary to develop broad skills, capable of preparing the individual to face diverse and unpredictable situations, stimulating teamwork and continuous learning. These conceptions are integrated by Fleury and Fleury (2018), recognizing competency as a result of the articulation among knowledge, skills and attitudes applied to professional practice.

From this, the research aims to understand the skills that make up the professional profile of women managers and the management practices adopted in family agro-industries of Mato Grosso do Sul. The study seeks to understand the management processes and skills developed by women in family agro-industries, analyzing the origins and sources of knowledge that underpin their practices and describing the competencies that define their professional profile.

This research is justified by contributing to the valorization of female protagonism in rural areas. Although women have expanded their performance in the management of family agro-industries, there are still gaps in the literature about the skills that make up their professional profile. Understanding these skills is essential to strengthen female participation in the management of rural business, expand marketing opportunities and promote access and formulation of public policies aimed at the sector. In addition, the recognition and analysis of

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this profile can promote benefits such as innovation, job generation, improvement of quality of life and increase of family income, reinforcing the academic relevance of the study for research on gender, management and rural entrepreneurship.

2 Material and Methods

This study adopted as a method a qualitative approach, exploratory and descriptive, allowing to identify patterns and competencies that characterize their professional profile (Creswell, 2017). The participants were initially selected by contacts established in family farming fairs and rural tourism events, complemented by the snowball technique, resulting in ten managers directly involved in the decision-making processes of agro-industries.

Data collection took place between February and March 2025, through semi-structured interviews, with an average duration of 40 minutes. All participants signed the Informed Consent Form and authorized the recording of the interviews; the study was approved by the Ethics Committee in Research with Human Beings of Universidade Federal da Grande Dourados (Legal Opinion No. 6.993.141).

The construction of the semi-structured script was based on the literature and previously submitted to a pre-test with an agroindustry manager who also leads an association of women, a stage that allowed adjustments as to the clarity and relevance of the issues. The instrument also sought to identify the adoption of services associated with Rural Tourism as a strategy to promote the commercialization and increase the visibility of family agro-industries.

This article is organized in order to, initially, contextualize the sociodemographic profile of women managers, their properties and agro-industries, as well as the products marketed by them. Subsequently, the findings are introduced regarding the formation of these managers and the main sources of knowledge that guide their practices. Then, the management processes and skills mobilized in the daily life of agribusiness are analyzed, in addition to marketing strategies, the adoption of Rural Tourism as a service provision that promotes the commercialization and visibility of agro-industries, and insertion in public policies.

The analysis also covers the productive processes identified in the interviewees' speeches. Finally, we describe the set of skills that emerged from the participants' narratives, contributing to the understanding of the professional profile of the women managers. Data analysis followed the principles of open and axial coding of Data-Based Theory, with support of Atlas.ti software. The interviews were coded with pseudonyms identified by G1 to G10.

3 Results and Discussion

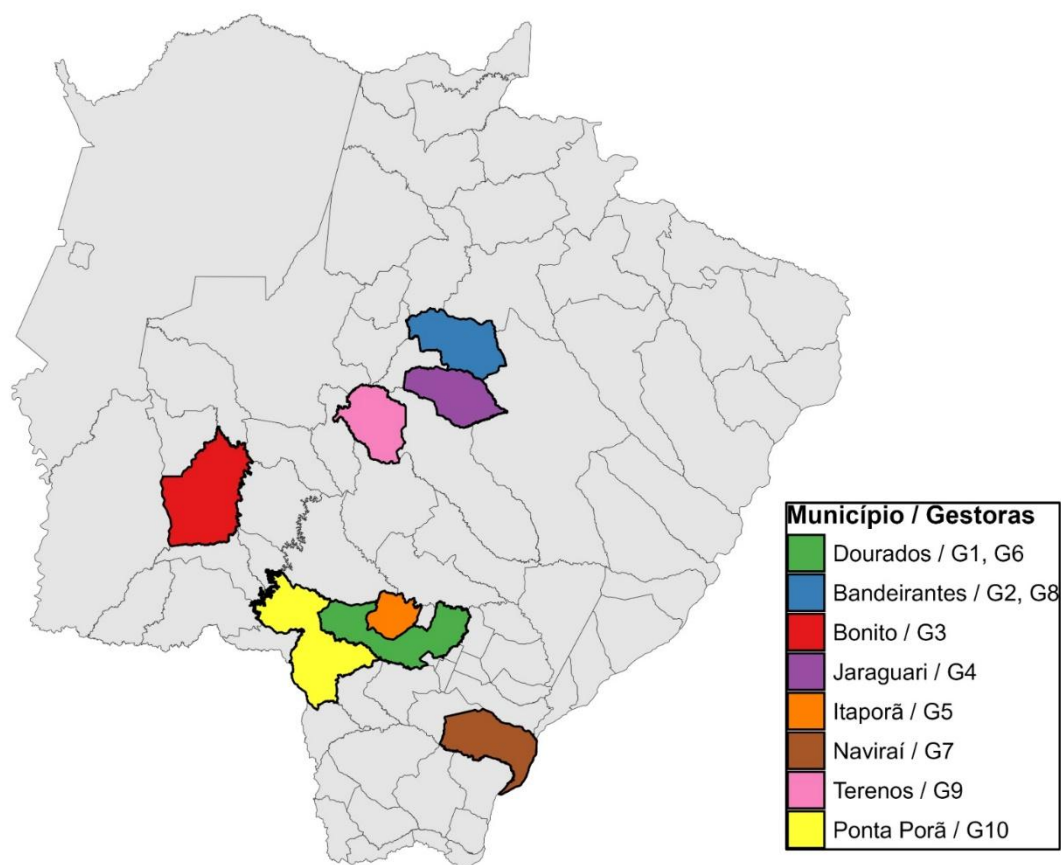
3.1 Profile of managers

The interviewees constitute a group of 10 women with direct action in the management of family agro-industries, distributed in different municipalities of Mato Grosso do Sul, with ages ranging from 33 to 64 years and levels of education ranging from incomplete elementary school to graduate. Married women and children predominate, and half of the participants integrate women's associations or mixed associations.

Figure 1 presents the map of the state of Mato Grosso do Sul with the spatial distribution of the family agro-industries participating in the research, indicating the location of each agro-industry and the corresponding identification of each manager (G1 to G10) in their respective municipalities.

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Figure 1 – Location of the agroindustries surveyed and identification of managers



Source : research data.

The sample is mainly concentrated in the southern and central-south region of Mato Grosso do Sul, regions of great relevance for family agriculture and the development of agro-industries such as Dourados, Itaporã, Naviraí, Bonito and Jaraguari. In addition, the municipality of Bandeirantes represents the northwest region of the state, while Terenos is located in the central region.

As for production, marketed products cover a wide variety of processed items, including dairy products, sweets, jams, honey and derivatives. In some cases, there is the use of native Cerrado fruits in the products (Table 1).

Table 1 - Products marketed in family agro-industries

Manager	Products marketed
G1	Candies*, milk jam, pumpkin jam, papaya jam, cheese, curd
G2	Milk jam
G3	Jams*, liqueurs*, bread, candies, rapaduras, flour** and vegetables**
G4	Cheese (6 types) *
G5	Guava paste, guava, passion fruit pulps and guava
G6	Honey, compound honey (guaco honey and propolis), liquid green propolis extract, propolis ointment, lip moisturizer with extracts, hydromel (honey wine)
G7	Candies* and bread
G8	Cheese and milk

G9	Molasses and rapadura* (6 flavors).
G10	Candies in pieces*, rapadura, mocoto jams, fruit jams and vegetables**

Legend: *Products made with **native fruits of the Cerrado**.

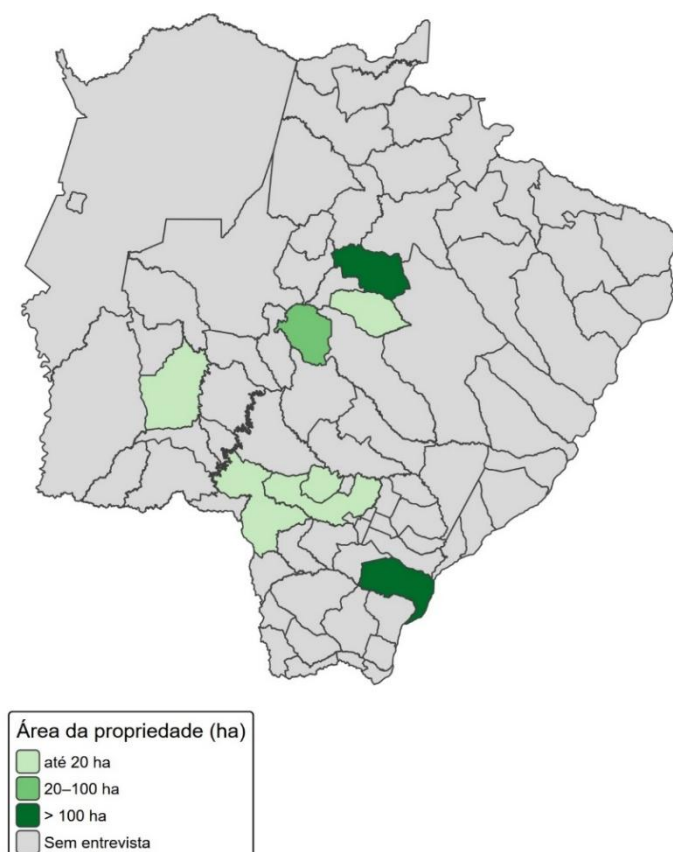
** Products intended for the National School Feeding Program (**PNAE**).

Source: research data.

Product supply can vary depending on the period of the year, with the production of different flavors of sweets and even the inclusion of new items, according to the availability of raw materials and the market demand. In addition to the insertion of some managers in institutional programs, such as PNAE.

Some managers work on smaller properties, mainly focused on artisanal production and crop diversification, while others have larger areas, allowing greater productive scale and marketing potential. Figure 2 shows the areas, in hectares, of the properties of the managers interviewed, organized by municipality.

Figure 2 - Areas in hectares of the properties of the interviewed managers



Source: research data.

The size of the participants' properties varies from 5ha to 158ha, reflecting different contexts of family production and land management capabilities. This variation stems from the

differences in the fiscal module between the municipalities of Mato Grosso do Sul, ranging from 30 hectares, as in Dourados, to 110 hectares, as in Corumbá (Imasul, 2017). According to Law No. 11.326/2006, all units analyzed fall within the limit of up to four fiscal modules, being therefore characterized as family agro-industries and rural enterprises of family agriculture.

However, it was not possible to accurately identify the size of the agro-industries from the interviews, since the participants only indicated that they have production on a larger or smaller scale, without exact details of the quantitative. It was observed that the production of these units may vary throughout the year, presenting periods of increase or reduction of sales, which reinforces the difficulty of accurately measuring the productive size.

3.2 Training of managers and sources of knowledge

The trajectory of insertion in the family agro-industry, for many managers, is directly related to the access to training promoted by public institutions and government programs. The report of one of the interviewees shows how the participation in training offered was fundamental to awaken the interest in marketing.

The project started with Agraer staff. We also had a lot of support from UFGD staff, especially in the area of food and nutrition, and the Municipal Secretariat of Agriculture. Several institutions were involved, offering courses and training on topics such as good practices, food handling and financial management. We participated in several courses, and that's where the idea of marketing started to emerge. Because, at first, the goal was only to take advantage of what we already had in the property, it was another way of exploitation (22:14 p 73-76 in G1).

Initially focused on the domestic use of the food produced in the property, the activity was gaining entrepreneurial character as it began to access courses on nutrition, good practices of manipulation, hygiene, financial control and food processing.

In this process, technical support and institutional presence were decisive for the construction of a new look at the productive potential of its property. These actions, often articulated with public policies, aimed at strengthening family agriculture, functioned as a starting point for this and other managers to structure their agro-industries, corroborating with Siliprandi (2015) and Silva, Santos and Ponciano (2018).

Many women learned from mothers and grandparents practices related to food production, such as candies, bread and cheeses. "My mother was always a candy maker, she was always a cook, so it comes from a family. And this was even more emerging: the will to do, to produce, and also to commercialize" (22:17. Another important dimension of knowledge formation occurs also through daily practice, agreeing with Alidou and Niehof (2013).

In addition, managers access technical training and training offered by various public and private institutions. The Agency for Agrarian Development and Rural Extension (Agraer) was the most cited among the interviewees, being recognized for the continuous support and the practical guidelines provided directly in the properties.

The relationships established between managers and different educational, research and technical assistance institutions reveal a broad and continuous training process, which combines empirical knowledge, technical and scientific support, participation in networks of women entrepreneurs and self-learning practices.

Informal partnerships with universities such as UFMS (Universidade Federal de Mato Grosso do Sul), UCDB (Universidade Católica Dom Bosco), UEMS (Universidade Estadual de Mato Grosso do Sul) and UFGD (Universidade Federal da Grande Dourados) offer infrastructure, quality analysis, consultancies and knowledge exchange: “They have already done a quality research [...] they took to make quality control [...] With food engineering personnel” (41:24 in G9).

While institutions such as Senar, Agraer and the BioSystemic Institute extend access to training and technical validation of products, evidenced by the search for scientific proof: “We have reports of people who took the milk or ate the cheese and didn’t get sick. But now we want a scientific proof that this milk really does not make anybody sick” (25:14 p 133 – 146 in G4).

Local women’s networks act as collaborative learning spaces, and the use of digital content complements training, strengthening managers’ autonomy. In addition to seeking personal training, some managers are also responsible for training new collaborators, acting as knowledge multipliers within their agroindustries. G7 reports: “When someone new comes in, we need to explain everything to her, how the process is, what can be done and what cannot” (28:38 p 486 – 499 in G7).

It is also noteworthy the role of intuition and practical knowledge, which often precedes formal technical training, showing that the knowledge of these women is built and continuously improved in everyday experience.

However, each manager carries a story, marked by different forms of access to land and insertion in the productive environment, which reflects a diversity of personal and social trajectories. This plurality of trajectories and the involvement with the family agribusiness does not follow a unique path, which directly influences the management practices adopted by these women.

3.3 Management processes and skills adopted by women managers in family agro-industries

The management processes of family agro-industries are predominantly developed through collaborative and adaptive practices, and by the informal, but strategic division of responsibilities, which considers the specific skills of each family member, confirming what is pointed out in the studies of Severo, Nichele and Waquil (2011). This dynamic is also confirmed by the managers interviewed, as exemplified by the G8 report:

I have my sister working with me. I also have [...] that has been with me for four years and helps me a lot in the cheese side. In addition, my brother-in-law and my nephew also participate, taking care of cleaning. It is all very familiar. (29:17 p 94 – 99 in G8).

In addition, the involvement of different generations in business is highlighted, which contributes to the continuity of agro-industries, but also requires skills such as dialogue, negotiation and flexibility to deal with conflicts and different views. In management, the skills developed in practice require continuous effort, which highlights the challenging character, in which the skills present in the managers profile cover not only inherited technical and practical skills, but also the determination to face difficulties, in line with Zarifian (2001).

The women interviewed demonstrate leadership, organization and decision-making capacity, acting as the main responsible for the coordination of productive, commercial and administrative activities, such as participation in fairs and insertion in public policies. These results reflect Busby and Rendle (2000) and Koutsou (2009).

Family participation in agro-industries is fundamental to the functioning of the enterprises. Managers assume the role of leadership and organization, coordinating activities with children, spouses, siblings and other relatives. After the analysis of the reports, it is observed that the managers structure the work from different management processes, which require specific skills for its conduction. Table 2 synthesizes the main processes identified and the skills associated with them.

Table 2 – Management processes and skills

Management Processes	Description	Associated Skills
Production planning	Definition of what and how much to produce; organization of production and processing.	Strategic vision, decision-making, organization
Organization of family work	Division of tasks between family members and employees.	Leadership, communication, people management
Financial control and pricing	Cost calculation, pricing, balance between revenue and expenditure.	Financial management, decision-making, organization

Marketing management	Participation in fairs, direct sales, supply to PNAE, rural tourism.	Communication, negotiation, entrepreneurship
Quality management and product innovation	Use of native fruits, artisanal recipes, productive diversification.	Innovation, strategic vision, ethics and responsibility
Institutional relationship	Participation in associations, access to public policies and partnerships.	Communication, articulation, leadership
Rural tourism	Reception of visitors, gastronomic experiences.	Innovation, resilience, entrepreneurship

Source: research data.

In addition to the identified skills, many women reaffirm their role in the management of agro-industries, overcoming conflicts and consolidating their entrepreneurial capacity. In some cases, this requires proof, in practice, the viability of the business, as reported by manager G8:

In my case, my husband did not believe much in the business, did not see a future, but we were working, even without much certainty, and over time the thing was evolving. Today we think alike, we work together, and conflicts are no longer as before (29:23 p 152 in G8).

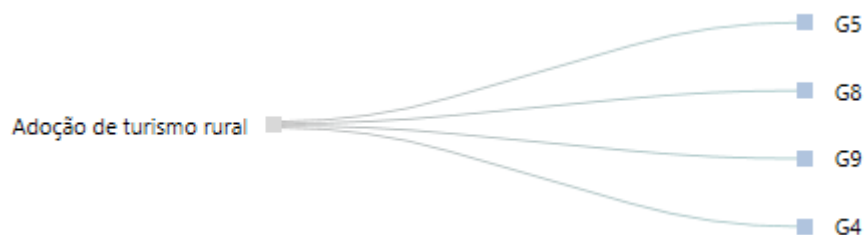
In addition, other managers highlight tensions related to family succession and the reconciliation of visions of different generations, highlighting the resistance of parents to the expansion: “For all that they have lived in these 40 years, they are more cautious and prefer to go with their foot on the brake” (27:33 p 534 – 552 in G6). However, while there are family tensions and challenges of reconciling different generations, this does not prevent managers from seeking ways to strengthen and expand their business.

3.3.1 Marketing Strategies, Rural Tourism and Public Policies

Some managers have adopted rural tourism as a complementary marketing strategy, understanding it as a service provision that involves visitation, tasting and direct sale of products. This practice favors both the valorization and circulation of agro-industrial products. Silveira *et al.* (2019) emphasize that the productive units inserted in tourist activities allow the visitor to experience the rural environment, while increasing the opportunities for commercialization of processed and in natura products.

In Figure 3, Sankey's diagram shows, visually, which managers have adopted rural tourism.

Figure 3 – Sankey diagram: Adoption of rural tourism in agribusiness



Source: research data.

The integration between agro-industrial activities and practices associated with rural tourism has been shown, according to managers, an effective strategy to add value to products and increase their visibility in the market.

It helps to add value and also in the dissemination of the product. There are people who come here, have breakfast, and then, on another day, appear only to buy the cheese. It is a very cool way to market, because you attract people, they feel at home. Sunday even we were at a fair, and a girl arrived who had already come home here. That is very rewarding. She knew of us through the schedule of the event, saw that we would be at the fair and went straight to look for our bank. (25:16 p 165-176 in G4).

This articulation corroborates the observations of Koutsou (2009) and Silveira *et al.* (2019), by showing that the approach with visitors and consumers enhances the appreciation of local products and strengthens the identity of family production.

In addition, participation in fairs and events, which constitute the main marketing channels used by managers, functions as a strategic space for visibility and direct contact with the consumer, boosting alternative marketing channels, corroborating with Girelli *et al.* (2024).

Participation in fairs and events is often made possible by invitations from institutions such as the Ministry of Regional Development (MDR), Agraer, Sebrae or by means of indications among the producers themselves. These invitations and interactions encourage the permanence and growth of agroindustries. Initiatives such as the insertion in the National School Feeding Program (PNAE) also play an important role in the consolidation of these enterprises.

Today we deliver bread for school meals. Our goal is four to five thousand loaves a week, for several schools. We also supply jams to markets such as milk jam, papaya jam, pumpkin jam and cones. These are the products we work with. (28:5 p 57-63 in G7)

PNAE was also highlighted as an effective strategy for the flow of production and strengthening of local income. Access to public policies is essential for financial stability and the expansion of family agro-industries, aligning itself with what Grisa points out (2012), by emphasizing the importance of these initiatives for the development of family agriculture.

However, access to public resources and support programs, such as those linked to Pronaf and other policies aimed at the rural environment, is a challenge for women managing family agro-industries, confirming the results of Cassini *et al.* (2024). The intense bureaucracy and indirect costs related to obtaining documents and the proof required by financial institutions make it difficult to obtain government financing and benefits.

On the other hand, there are managers who report more positive experiences, especially when there is a community or institutional support network that facilitates access to information:

For us, here in the settlement, I think it is very facilitated. We already know people, do not need to be running after information, they always warn. But I have heard other situations, including in Bonito, of people who lost notice because they did not know, because no one warned. They say that it is mandatory to search, enter the site, see if there is something... So it depends a lot. Here we have a support network that facilitates a lot. But the documentation part is very bureaucratic. If a paper is missing, you can no longer participate (24:32 p 411 – 439 in G3).

Familiarity with the processes can also be developed through involvement in events and training, which strengthens the ability to articulate and negotiate with banks and public agencies:

Look, it becomes easy when you participate in events such as the launch of the Crop Plan. Every year it has to be present, because there are the superintendent of the MDA, the Banco do Brasil, Caixa Econômica, all the staff of the government. There, you have to be attentive to, when you get to the bank, and the manager who sometimes does not understand very well, you can show that you have knowledge and challenge, saying that it is not quite like that (32:56 p 1976 – 2047 in G5).

However, not all of them have access to this type of space. Often, the institutional support that reaches the properties is restricted to specific technical assistance actions, as exemplified:

So, not for the association, now for the individual members, some have the advice of Senar. But, of financial resources, we do not receive anything from any public institution. The same support we have is municipal and the support of Senar, with consulting for some producers. (27:18 p 272 – 283 in G6)

Although there are public policies aimed at strengthening family agriculture, such as the National Program for Strengthening Family Agriculture (Pronaf), many managers choose not to access them, either because of ignorance, distrust or the bureaucracy involved, as well as the manager of Bandeirantes.

I have never made use of it, I have never tried it. We work with our own money. We have already done two enlargements on our own. So, all that needs to improve there in the factory, is with our money that we do. (23:47 p 1002 – 1006 in G2)

On the other hand, there are also examples of managers who recognize and access different modalities of Pronaf: “We have Pronaf Mais Alimentos, investment, Pronaf Produção.. We have Pronaf for agribusiness also” (26:21 p 605 – 610 in G5).

These reports show that, although there are important public policies accessed by the interviewees, such as PNAE and Senar programs, there are still challenges related to bureaucracy and inequality of access between different regions and groups. The ability to stay informed, participate in networks and seek training appears as an important differential in the process of more qualified and strategic insertion in these policies.

3.3.2 Production Processes and Management Practices

One of the striking differentials in the production of several family agro-industries in Mato Grosso do Sul is the appreciation of the native fruits of the local biome, coming from both the Cerrado and the Pantanal. This result aligns with *Campos et al.* (2023). In addition to showing strong concern for the quality and naturalness of products, prioritizing production methods that avoid the use of chemical additives and artificial preservatives, commonly used in the conventional industry. As reported by one of the participants in Dourados:

The industrialized factory comes with potassium sorbate, which is highly poisonous. And it is our evil. My group, my staff, has no preservative. It is more natural, being more similar to the natural itself. So, you can't stay long there on the counter, or on the shelf. Oh, then, every week... every week we renew. (22:34 p. 324–333 in G1).

Among the inputs used by managers are species such as bocaiuva, camburi, jaracatiá, guavira, jatobá, genipapo and cumbaru, which make up the basis for the production of various candies, jams and liqueurs. Managers establish partnerships with licensed and certified producers, ensuring that the ingredients have known origin and comply with health requirements.

When demand exceeds the usual production capacity, managers choose to meet the additional quantity through specific orders. The definition of the quantity of manufactured products occurs in a practical and empirical way, based on the experience of managers. However, small producers still do not reach a sufficient productive scale to serve large markets, especially in the face of competition with companies that have advanced machinery and greater productive capacity.

Management practices linked to productive processes reflect a strategic combination between valuing regional identity, concern for quality and naturalness of products, and adaptation to the demands and limitations of the local market.

As for the management focused on pricing and costs of products, in addition to practical experience, some managers rely on the support of institutions, which offer guidance on appropriate pricing methods, while others use informal spreadsheets to record costs with raw

material, packaging and other inputs, in addition to observing the prices practiced in the market to establish their own sales values.

Another challenge in the management of family agro-industries faced by managers refers to price competition in the local market, especially when other producers offer similar products at significantly lower values. This is largely because family agro-industries that act in a regularized way need to comply with a series of sanitary and legal requirements, such as the adoption of good hygiene practices, the payment of fees, the acquisition of adequate packaging and, in some cases, the obtaining of certifications.

This inequality of conditions directly compromises the competitiveness and financial of family agro-industries as reported by a manager: "I see at R\$50, fresh cheese, for example. But my neighbors, here or there in the market, already sell for R\$ 35" (25:27 p 343 - 364 – in G4).

However, the management of family agro-industries coordinated by women goes beyond the simple organization of productive activities, involves a deep commitment to ethical values and interpersonal relationships based on trust, solidarity and care, as evidenced by Monteiro, Garcia-Sanchez and Aibar-Guzman (2022).

The commitment to the well-being of employees is also highlighted as part of the management of these women. There is a concern with listening, welcoming and partnership that transcends the space of work, as stated in G8:

With employees, whenever I can do something for them, I do it. They know they can count on me for many things in their lives, not just at work. Apart from this function that we exercise, this path that chose to follow with our work, I try to be a friend, I try to be a companion to those who are here with me. (29:35 p 288 in G8)

This humanized approach strengthens the engagement and motivation of employees, promoting a sense of belonging and commitment to the objectives of the agro-industry.

3.4 Most frequent skills

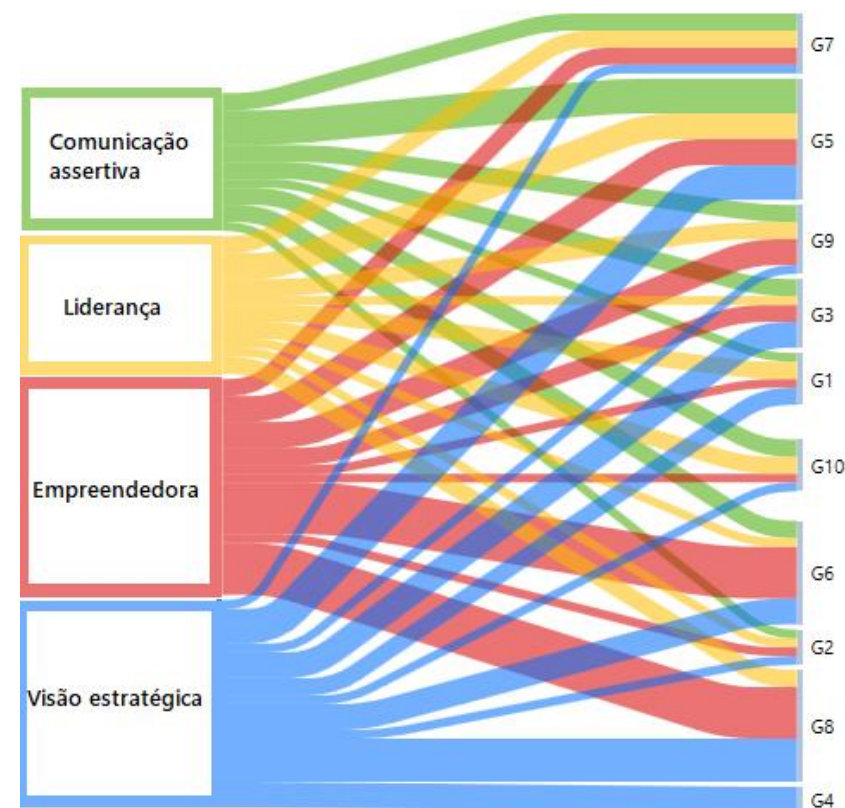
The analysis of the interviews reveals a set of core competencies that stand out repeatedly among the women managers of the family agro-industries investigated. These competencies, identified from the reports and management practices mentioned, reflect the articulation between knowledge, skills and attitudes that support the performance of these managers in their productive and organizational contexts.

In the dimension of knowledge, the traditional knowledge inherited from the family or acquired intuitively, combined with empirical knowledge, self-taught training and technical skills supported by institutional networks are highlighted. The skills refer to the management

and operation capabilities of the agro-industries, covering the interpersonal relationship, the management of production and sales, as well as innovation and problem solving. Attitudes involve values and behaviors related to responsibility for quality, care and zeal, transparency in management and valuing family relationships and employees.

The results are presented with the Sankey diagram and divided into two distinct charts (Figure 4 and 5). The first one presents the skills most frequently among the participants, identified as more present in the profile of managers. The second, considered a continuity of the first, exhibits skills with lower frequency, allowing to clearly observe the distribution and intensity of the other skills identified in the study.

Figure 4 – Sankey diagram: Most frequent skills in family agro-industry managers surveyed



Source: research data.

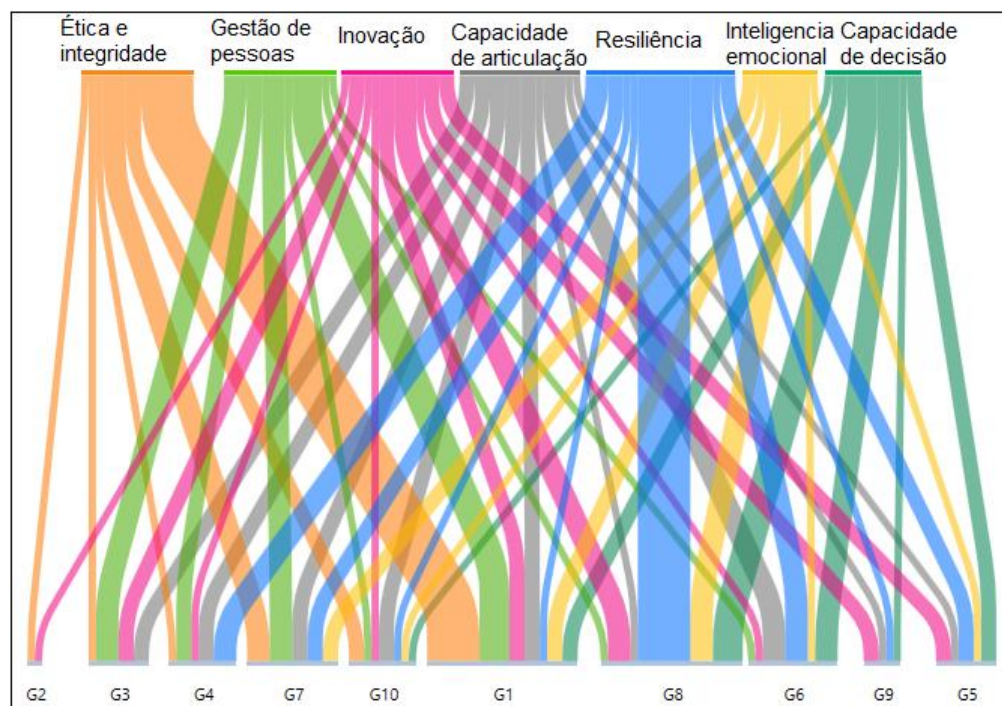
Figure 4 summarizes the most recurrent skills among women managers of family agro-industries, showing a profile marked by entrepreneurship, strategic vision, assertive communication and leadership.

The entrepreneurial behavior stood out as the most expressive competence, revealing the ability of these managers to identify opportunities, take initiative and add value to products and business, often driven by the need for income generation. The strategic vision was equally relevant, although with less intensity, reflecting future-oriented planning, productive diversification, health care and articulation with public policies and support institutions.

Assertive communication emerged as an essential competence for interpersonal relationships and for the consolidation of cooperation networks with family members, clients and partners, supporting a management based on dialogue and listening. Finally, leadership was also identified significantly, although less often. In this case, a leadership model is often shared and adapted to the family context, which is built through trust, example and strategic division of responsibilities.

Figure 5 presents the continuation of the identified competencies, bringing together those that, although they emerged with less intensity in the interviews, are also present in the analyzed profiles. This separation in two figures has only the objective of facilitating the visualization and organization of the data, thus not indicating less relevance or importance of the competences presented in relation to the previous ones.

Figure 5 – Sankey diagram: Main competences identified in the managers of



agroindustry families **Source** : Research data.

Source: research data.

Resilience stands out for being present in the profile of almost all managers. The reports reveal trajectories marked by economic, political and social challenges, which demanded courage, persistence and constant reinvention. The capacity of articulation also appears frequently, indicating the active effort of these women to establish collaboration networks, seek partnerships with institutions, integrate with productive groups or participate in associations and fairs.

Innovation and creativity emerge as important resources for the adaptation of products, diversification of production and the conquest of new markets. Ethics and integrity are also present in managers' statements, reflecting a commitment to fair practices, transparency in business relations and respect for people involved in the production chain, including consumers, employees, partners and family members.

In addition, although the competences were less recurrent in the interviews: Decision-making capacity, emotional intelligence and management of people and staff, emerged punctually, usually associated with specific situations.

Table 3 presents selected excerpts from the interviews with managers, of which exemplify the skills identified in the data analysis. These citations, expressed in the language of the interviewees, highlight the concrete manifestation of competences in the daily management.

Table 3 – Profile of Women’s Skills and Quotes

Competence	Citation of participants	Reference
Entrepreneurship	And for you to do a rural tourism, you do not need that mega infrastructure, no. You will adapt according to what you have.	(26:13 p 124–126 - G5)
Strategic vision	You have to think ahead, because otherwise the business dies. So we go looking at what works best.	(21:14 p 342–352 - G2)
Assertive communication	I always try to talk, explain, see the other side as well. You have to know how to speak and listen.	(22:85 p 440–443 - G1)
Leadership	I am the one who coordinates, but I always hear everyone. The final word is mine, but it is built together.	(19:03 p 309–319 G1)
Innovation	We saw that we could enjoy the fruit in another way, then came the idea of making jam with different flavor.	(24:12 p 712–724 -G6)
Resilience	We went through a lot, but we never thought about giving up. It has love involved and a lot of desire to work out.	(22:15 p 456–468 - G4)
Ethics	Very important, respect, solidarity, friendship of... the fellowship. And know how to listen to all sides too. Both with customers here [...] To maintain, try to maintain harmony.	(22:48 p 491–500 - G1)
People management	There is friction, of course, but in general we understand each other well. It has unity and conversation to solve.	(22:36 p 367–381 - G1)
Ability to decide	I do not always decide alone. We discuss together, especially my husband and I.	(20:03 p 312–326 - G2)
Articulation capacity	I attended meetings with the city hall, with technical assistance... we have to be together, because otherwise we can get nothing. And then we articulate with other women too.	(24:58 p 777–784 G5)
Emotional intelligence	There are days that we are tired, stressed, but we have to keep calm. I've learned that if I speak in the heat of moment, I'll regret it later. So I stay quiet, I think, and only after I speak.	(22:43 p 685–692 - G2)

Source: research data.

The results of this research corroborate what Nichele and Waquil (2011) highlight about the female performance in family agro-industries. The identified skills are built in everyday practice, in interaction with clients, in participation in fairs and in articulation with associations, reflecting both traditional knowledge and knowledge of the territory.

4 Conclusion

The study showed that women managers play a central role in the conduct of family agro-industries, reconciling empirical and formal knowledge, family bonds, cultural values and innovation and entrepreneurship strategies. The qualitative analysis pointed out as more recurrent competences the entrepreneurial profile, the strategic vision, assertive communication and leadership, followed by resilience and innovation capacity. These competences reflect a proactive action, oriented to planning, adaptability and overcoming the challenges of the rural environment.

In addition to these, skills such as ethics, articulation, people management, emotional intelligence and decision-making emerged, which, although less expressive, reinforce the diversity and complexity of the profile of these managers. The management of agro-industries was marked by family collaboration and female leadership, highlighting collective and integrated decision-making processes.

Among the limitations of this study, we highlight the diversity of sizes of the agroindustries analyzed, considering that the interviewees did not have exact information about the productive capacity, which varies seasonally throughout the year. Still, it was possible to identify noticeable differences between agroindustries, indicating that some have a larger production scale than others, even without the accuracy of quantitative data. Although the sample, composed of ten participants, revealed theoretical saturation, some regions of the state especially those located in the north were not contemplated. This territorial gap may have restricted the representativeness of the results and influenced the analyzes on management practices and the perception of managers' competencies.

It is also observed that understanding the skills that make up the professional profile of women managers represents an important step to promote gender equality in rural areas. In addition, the results obtained in this study offer subsidies that can favor both the expansion of scientific knowledge and the formulation and improvement of actions aimed at local development. For future research, it is suggested to investigate comparatively the profile of competences of women managers in different regions of the country, considering cultural, economic and local public policy variations.

Finally, the role of public policies and institutions of technical and educational support in professionalization, productive strengthening and expanding access to markets, essential factors for sustainability and recognition of female protagonism in family agro-industries is highlighted.

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