

**GREEN ECONOMY AND FAMILY BUSINESS:
BETWEEN CHALLENGES AND NEW OPPORTUNITIES****Laura Leticia Gaona Tamez^{1*}, Ana Cecilia Flores Amador²,
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Abstract: Family businesses play a crucial role in the global economy, and by adopting green economy principles, they can enhance both their competitiveness and sustainability. This involves the integration of environmentally responsible practices such as efficient resource use, reduction of pollutant emissions, and the adoption of renewable energy sources. The objective of the paper is to identify the opportunities and challenges that family businesses face when incorporating the green economy into their business strategies. A qualitative methodology was used, with semi-structured interviews conducted with 15 owners of family businesses from the agricultural, manufacturing, commercial and renewable energy sectors located in the central region of Coahuila, Mexico. Key findings reveal opportunities such as strengthening corporate reputation and differentiation in a highly competitive environment. However, family businesses face substantial obstacles, including a lack of financial support, limited knowledge of sustainable technologies, and resistance to change, which may hinder the transition. To address these challenges, it is essential to have government support through fiscal incentives and clear regulations, foster an organizational culture oriented toward sustainability, and leverage the potential of public-private partnerships to overcome financial and technical barriers.

Keywords: family businesses, green economy, opportunities and challenges**JEL Classification:** O10, O16, M10, M14

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Introduction

Family businesses constitute an essential part of the global business fabric, representing approximately 70% worldwide (Calabrò, 2019). These companies not only contribute significantly to job creation and wealth generation, but also have a profound impact on the communities in which they operate. Today, the concept of the green economy represents one of the responses to environmental and social challenges, as it promotes an economic model aimed at reducing carbon emissions, increasing resource-use efficiency, and fostering social inclusion (UNEP, 2019).

By implementing green economy practices, family businesses have a unique opportunity due to their organizational structure and the fact that they often inherit values and commitment across generations (Zellweger et al., 2013). However, they also face specific challenges resulting from their size, investment capacity, and potential resistance to change.

This study analyzes the main opportunities available to family businesses, such as accessing new markets, enhancing their reputation among clients and partners, and reducing operating costs through the implementation of sustainable technologies (Hernández-Perlines et al., 2022). Additionally, it explores the primary challenges they encounter when entering the green economy, such as difficulties accessing financing, employee training needs, and the necessity to comply with increasingly strict regulations (Calabrò, 2019).

The objective of this research is to identify opportunities and challenges faced by family businesses when integrating the green economy into their business strategies. To achieve this objective, the following research questions will be answered: What are the main opportunities that family businesses perceive when incorporating green economy practices into their business strategies? And what challenges do family businesses face in the implementation of initiatives aimed at the green economy? The research is structured as follows: theoretical framework, methodology, analysis and discussion of results, conclusions and proposals.

Literature review

Family business

The origin of family businesses dates back to ancient times and has remained a lasting form of economic organization throughout history. Family businesses have played a significant role in the economic and social development of communities across various cultures and civilizations, being one of the oldest types of business organizations (Naude, 2010).

Family businesses are those in which ownership and management are controlled by members of the same family, granting them a particular organizational structure (Gómez-Mejía et al., 2001). According to Putritamara et al. (2023), the defining characteristics of a family business include having family members in key positions, overseeing business operations, and being majority shareholders.

Over time, the concept of family business has become more consolidated and is now recognized globally as a legitimate form of organization. Leach (1993) defines a family business as one influenced by a family or family ties that control the corporation's operations.

In these businesses, decision-making is heavily influenced by family dynamics, which can either be an advantage or a challenge (Zellweger et al., 2010). Decision-making is often faster due to ownership and management typically being concentrated in fewer hands, yet this can also lead to family conflicts that threaten long-term sustainability (Litz, 1995).

Family businesses are more likely to survive and grow over time due to their distinctive resilience, which allows them to better adapt to market changes and pursue business continuity across generations (Ahmad et al., 2021).

Green economy

Green economy is defined as the outcome of improving human well-being and social equity while significantly reducing environmental risks and ecological scarcity (UNEP, 2011). This economic model promotes efficient use of natural resources, lower carbon emissions, and social inclusion through sustainable employment. It stands in contrast to traditional economic growth models, which have historically been linked to environmental degradation and the indiscriminate exploitation of natural resources (Sachs, 2015).

The green economy fosters economic development through environmental sustainability, aiming to minimize negative impacts on ecosystems and encourage more responsible resource use (UNEP, 2011). It focuses on sectors designed to improve energy efficiency, reduce carbon footprints, and promote the conservation of natural resources (OECD, 2011). Although the transition to a green economy is a global challenge, it also presents opportunities for companies of all sizes, including family businesses, to innovate and enhance their competitiveness in a market increasingly driven by sustainability.

Sustainability is a key principle within the green economy, as it seeks to balance environmental, economic, and social dimensions (Brundtland, 1987). The World Commission on Environment and Development (WCED) defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED, 1987). The green economy embodies this principle through the advancement of renewable energy, circular economy practices, and biodiversity conservation (Alvarez, 2023).

The green economy constitutes a development paradigm that seeks to reconcile economic growth, social equity, and environmental sustainability (Núñez-Cacho et al., 2018). In the business sphere, its implementation involves the adoption of clean production practices, the incorporation of environmental innovations and the transition to circular economy models.

In the case of family businesses, the literature recognizes that their operating logic differs from non-family businesses due to the influence of socio-emotional richness, understood as the set of intangible values linked to family identity, continuity and

legacy (Li et al., 2023). This long-term orientation, based on the preservation of the family's name and reputation, can become a facilitating factor in the adoption of sustainable practices.

Various studies confirm that family ownership and control can be associated with greater commitment to environmental sustainability. Gómez-Mejía et al. (2025) showed that family businesses in 22 European countries implement more substantive environmental actions than non-family ones, reflecting an ethical dimension linked to family control. In a complementary way, Doucet et al. (2025) showed that family SMEs, especially those with strong local roots, are more likely to adopt circular economy practices, although this effect is conditioned by contextual factors such as environmental awareness of the socio-spatial environment.

However, the relationship between family and sustainability is not homogeneous. Miroshnychenko et al. (2025) analyzed companies from 29 countries and concluded that the “family effect” on environmental management varies according to the type of firm and the institutional context, which poses important challenges to generalize the results and to design differentiated public policies.

In summary, family businesses have a double dimension with respect to the green economy: on the one hand, they have advantages associated with their intergenerational orientation, their commitment to the community and their search for social legitimacy; but, on the other, they face barriers derived from financial limitations, resistance to change and sectoral heterogeneity. This tension between opportunities and challenges forms the basis of the analysis in this study.

Climate opportunities for family businesses in the green economy

Family businesses can seize the opportunities offered by the green economy due to their flexible structure and long-term commitment. Among these opportunities, there is the potential to enhance corporate reputation through responsible practices, access new markets, and develop innovative products and services based on sustainable solutions (Hart & Milstein, 1999). Moreover, adopting clean technologies and implementing sustainable practices can help reduce long-term costs and improve operational efficiency (Porter & Kramer, 2006).

The green economy, as defined by the United Nations Environment Programme (UNEP, 2011), is an economy that results from improvements in human well-being and social equity while significantly reducing environmental risks and ecological scarcities. This model represents a major paradigm shift for businesses.

Due to their unique nature, family businesses are well-positioned to adopt sustainable models with greater flexibility and long-term commitment (Zellweger et al., 2013). These businesses often maintain close ties with their communities and prioritize sustainability as a legacy for future generations, giving them a distinct competitive edge (Hernández-Perlines et al., 2022).

Table 1 presents a synthesis of the international studies on family businesses and the green economy carried out by various authors, presenting, by author, the objective of the study, the context, the research method, the main findings, the opportunities and the challenges of the implementation of the green economy in family businesses.

Table 1. Synthesis of international studies on family businesses and the green economy

Authors and year	Objective of the study	Context	Method	Main findings	Opportunities	Challenges
Núñez-Cacho et al. (2018)	Propose a transition model towards the circular economy in family businesses	Case of a Spanish family business	Qualitative Case Study	Identify internal and external factors that favor the transition	Family values and community engagement as drivers	Financial constraints and resistance to change
Li et al. (2023)	Analyze the effect of socio-emotional wealth (SEW) on environmental strategy	Family businesses in China	Quantitative (statistical analysis)	SEW promotes proactive environmental strategies	Long-term orientation, reputation and continuity	Possible over-focus on non-financial goals
Gómez-Mejía et al. (2025)	Examining the relationship between family control and environmental performance in Europe	22 European countries, family and non-family businesses	Comparative quantitative	Family-owned firms show more substantive environmental actions	Family legacy and ethics as competitive advantages	Heterogeneity of results by country and sector
Doucet et al. (2025)	Studying the adoption of circular economy practices in family SMEs	13,319 SMEs in various socio-spatial contexts	Multivariate Empirical Analysis	Family ownership increases adoption of circular practices	Local roots and community environmental awareness	Socio-spatial context conditions the results
Miroshnychenko et al. (2025)	Assess whether family businesses are greener than non-family businesses	Sample companies in 29 countries	Multinational comparative study	Family effect on environmental management is not uniform	Long-term potential and intergenerational vision	

Source: Own study based on research

Challenges for family businesses in the green economy

Family businesses face several challenges when implementing the green economy. One of the primary obstacles is resistance to change, as these firms tend to be more conservative and less inclined to take risks (Sharma & Nordqvist, 2008). Another major challenge is the lack of financial resources and limited access to capital for investing in green technologies, which can hinder the implementation of sustainable practices. Additionally, family conflicts can influence strategic decision-making and delay the adoption of a greener business model (Sundaramurthy, 2008).

The literature highlights several barriers faced by these firms, such as their focus on resource conservation, which may make them hesitant to adopt innovative technologies due to high initial costs and uncertainty about long-term benefits (Calabrò, 2019). Resistance to change and lack of knowledge about sustainable practices are also significant obstacles (Alayón et al., 2022). Recent studies emphasize the need to create a favorable regulatory environment and offer financial incentives as key strategies for supporting the transition to a green economy in family businesses.

To overcome these challenges, family firms must invest in sustainability education and build an organizational culture that values green innovation (Eddleston & Kellermanns, 2007). Furthermore, establishing strategic partnerships with governments, financial institutions and key actors in the green sector is essential to gain access to resources and expertise (Berrone et al., 2012).

Research methodology

The research follows a qualitative approach, using semi-structured interviews as the method of data collection. The interviews were conducted between October 2024 and January 2025 with 15 owners of family businesses from the agriculture, manufacturing, commerce and renewable energy sectors in the central region of Coahuila, Mexico.

Semi-structured interviews follow a predetermined structure but allow flexibility to deeply explore the perceptions and experiences of the interviewees (González-Vega et al., 2022). It is essential to design an interview guide that steers the conversation toward topics of interest while allowing the exploration of emerging insights during the interview. This guide must include open-ended questions that encourage detailed and reflective responses (Díaz-Bravo et al., 2013).

In this research, a pilot study was developed with a sample of 15 family businesses, with the aim of evaluating the relevance and effectiveness of the semi-structured interview as an information collection technique. This exploratory nature made it possible to identify the clarity of the questions, the depth of the answers obtained and the possible methodological difficulties that could arise in a larger-scale application. The choice of a small sample is appropriate in this initial phase, since it allows a preliminary approach to the object of study and provides input for the improvement of the methodological design in subsequent research of greater scope and representativeness.

The family businesses were selected through purposeful sampling, applying a thematic approach to identify patterns and trends in the responses. The selection was designed to ensure diversity in terms of size, productive activity, and geographic location.

The selection of the 15 family businesses was made according to previously defined criteria that guarantee the relevance of the sample for the study. Firstly, the size of the company was considered, prioritizing small- and medium-scale economic units, given that they represent the majority of the business fabric and are the most susceptible to the challenges of the transition to green economy models. Secondly, seniority and continuity in the market were considered, selecting companies with a minimum of five years of operation, which ensures a certain organizational stability and accumulated experience in their production or commercial processes. Likewise, legal formalization and commercial registration were established as a criterion, in order to guarantee the availability of reliable information and the comparability of the data. Finally, the willingness and openness to participate in the research was considered, an essential condition for the application of the interview where the data were collected and for access to internal information related to environmental and sustainability practices.

Therefore, the delimitation of the study to a total of 15 companies responds to the need to balance analytical depth and methodological feasibility. This number of units of analysis allows a comparative approach between sectors, facilitates the application of qualitative techniques and ensures the identification of common patterns and sectoral particularities in the adoption of the green economy.

Consequently, the selected sample guarantees both the internal validity of the study and the possibility of obtaining relevant conclusions for academic debate and the formulation of public policies aimed at sustainability.

The semi-structured interview questions are found in Appendix 1, and were divided into the following aspects:

- characteristics of the family business,
- knowledge and perception of the green economy,
- motivations and perceived benefits,
- challenges and barriers,
- current practices.

Results

Below are the results of the 15 family businesses that participated in the study.

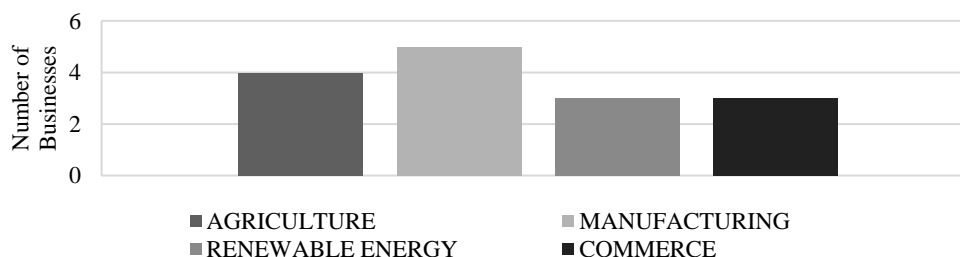


Figure 1. Economic sector of family businesses

Source: Own study based on research

Figure 1 shows the results of the number of family businesses that were surveyed by economic sector: 4 agricultural companies, 5 manufacturing companies, 3 renewable energy companies and 3 commercial companies.



Figure 2. Geographic location of the businesses

Source: Own study based on research

Figure 2 shows the distribution of the family businesses interviewed, with 8 corresponding to rural areas and 7 to urban areas, which ensures a representation of different contexts.

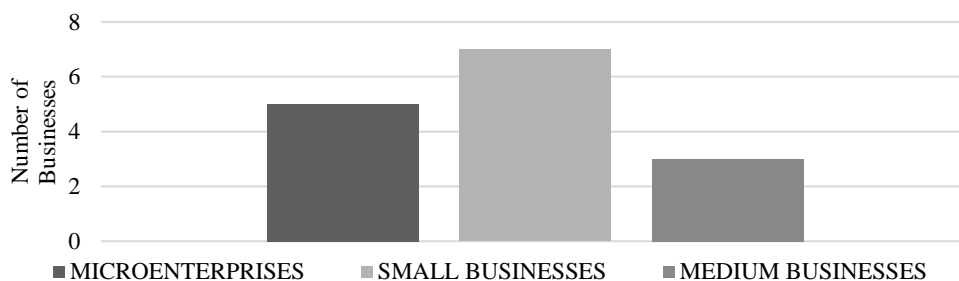


Figure 3. Size of family businesses

Source: Own study based on research

Figure 3 shows the distribution of the 15 family businesses according to the size of the companies interviewed, where 5 are microenterprises, 7 are small, and 3 are medium-sized.

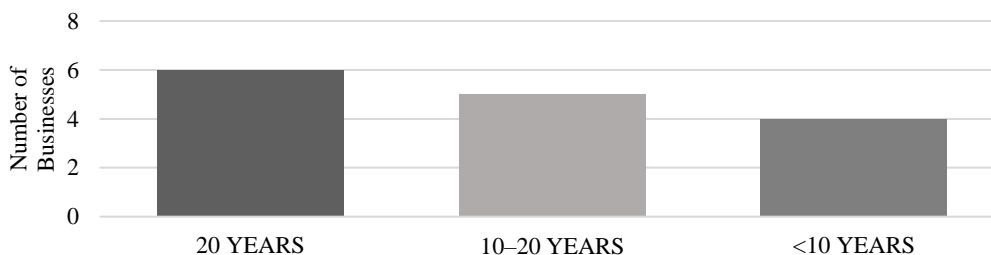


Figure 4. Age of family businesses

Source: Own study based on research

Figure 4 shows the results of the age of the family businesses interviewed: 6 companies with more than 20 years of operation, 5 companies with between 10 and 20 years and 4 companies with less than 10 years.

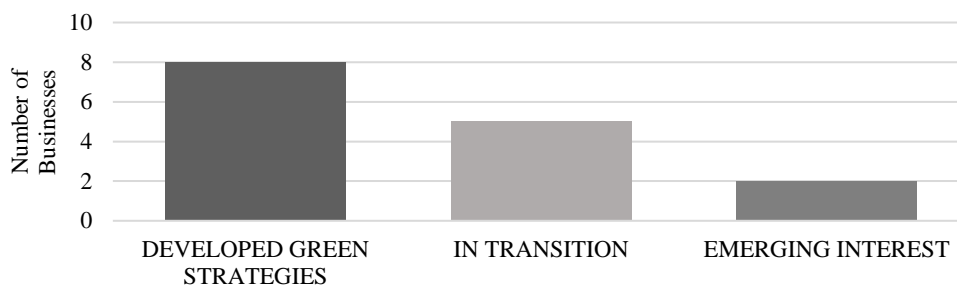


Figure 5. Businesses with adoption of green practices

Source: Own study based on research

Figure 5 shows the distribution of the adoption of green practices by the family businesses interviewed, showing that 8 companies have developed green strategies, 5 companies in transition to the green economy and 2 companies with an incipient interest in sustainable practices.

Table 2 presents the results of the characteristics of the 15 family businesses that participated in the interviews. The general characteristics are: location, activity, size according to the number of employees, seniority, green practices and the challenges they face. To guarantee the confidentiality and privacy of the participating companies, fictitious names are used.

Table 2. Characteristics of the participating family businesses

Enterprise	Location	Activity	Size	Antiquity	Green Practices	Challenges
A	Southern Region	Organic coffee production	Small (25)	18 years	Composting solar energy, organic certification	Financing to expand sustainable operations
B	Northern Region	Tropical fruit production	Median (50)	22 years	Efficient water management, reduction of agrochemicals	Resistance to change of family partners
C	Central Region	Vegetable production	Microenterprise (10)	8 years	Regenerative agriculture, direct-to-consumer	Low initial profitability
D	Southern Region	Organic avocado production	Small (20)	15 years	Reforestation, drip irrigation	Lack of government incentives
E	Central Region	Sustainable clothing manufacturing	Small (30)	12 years	Organic cotton, natural dyes	Competition with cheaper products

Enterprise	Location	Activity	Size	Antiquity	Green Practices	Challenges
F	Southern Region	Furniture production with recycled wood	Microenterprise (12)	5 years	Wood recycling, eco-friendly finishes	Limited access to regional customers
G	Northern Region	Recycled Building Materials	Median (50)	20 years	Debris recycling, emission reduction	High costs in transporting recyclable materials
H	Central Region	Eco-friendly decorative items	Microenterprise (8)	7 years	Biodegradable materials, renewable energy	Low international visibility
I	Northern Region	Energy-efficient lamps	Small (22)	10 years	LED technology, component recycling	High costs in Research and development
J	Central Region	Solar Panel Installation	Small (18)	6 years	Recyclable materials in facilities	Educating clients about long-term benefits
K	Southern Region	Wind systems for rural areas	Microenterprise (10)	4 years	Technology adapted to low resources	Limited funding
L	Northern Region	Hybrid renewable energy systems	Median (45)	12 years	Custom designs for businesses	Changing regulations
M	Central Region	Sale of bulk products	Microenterprise (6)	8 years	No plastics, alliances with local producers	Increased operating costs
N	Northern Region	Organic Food Distribution	Small (15)	14 years	Low-emission logistics, biodegradable packaging	Product seasonality
O	Southern Region	Marketing of sustainable handicrafts	Microenterprise (8)	10 years	Recycled materials in handicrafts	Limited export

Source: Own study based on research

The comparison between the specialized literature and the findings of this pilot study allows us to observe significant coincidences, as well as nuances of the context analyzed. First, the results obtained coincide with what was pointed out by Núñez-Cacho et al. (2018) and Doucet et al. (2025), in terms of family values, community roots and environmental awareness as driving factors for the adoption of green practices in family businesses. The family businesses participating in this research reflected this trend through actions such as regenerative agriculture, composting, reforestation, recycling of materials and the implementation of renewable energies, which confirms the importance of family identity as a driver of sustainability.

Likewise, the findings are aligned with the contributions of Li et al. (2023) and Gómez-Mejía et al. (2025), who highlight that long-term orientation and socio-emotional richness favor more proactive environmental strategies. In the case of the companies studied, this vision was evidenced in initiatives related to organic certification, the reduction of the use of agrochemicals and the adoption of energy efficiency technologies, all of which require an intergenerational perspective and business continuity.

However, challenges also emerge that are related to what has been documented in previous research. These include the financial constraints to scale sustainable operations (Núñez-Cacho et al., 2018), the resistance to change of some members of the business family (Li et al., 2023), and the heterogeneity of results according to the sociocultural and sectoral context (Gómez-Mejía et al., 2025; Doucet et al., 2025). In this regard, the participating companies faced specific challenges such as high transportation costs of recyclable materials, low initial profitability, competition with cheaper products, and lack of government incentives, reflecting that the local environment plays a crucial role in the viability of green practices.

Consistent with Miroshnychenko et al. (2025), the results of this study confirm that the impact of family ownership on environmental management is not uniform. Factors such as the size of the company, the sector of activity, the geographical location and public policies condition the results achieved, generating a diversity of trajectories towards sustainability.

Overall, these findings suggest that although the family business is an actor with particular advantages for the transition to a green economy, due to its legacy, long-term orientation and community commitment, there are still structural limitations that must be considered in the design of public policies and in the planning of business strategies that seek to promote sustainability in this type of organization.

Conclusions

The objective of the paper was to identify the opportunities and challenges that family businesses face when incorporating the green economy into their business strategies.

The results of the semi-structured interviews revealed the main current practices of the green economy used by family businesses in each of the different activities:

- agricultural companies present a focus on sustainable agricultural practices;
- manufacturing companies are implementing green processes;
- renewable energy companies are focused on solar panel installations and energy efficiency systems;
- family-owned retail businesses are employing strategies to reduce plastics and manage sustainable waste.

The main challenges and opportunities encountered in the interviews with the 15 family businesses are presented in Table 3.

Table 3. Main challenges and opportunities of the family businesses interviewed

Opportunities	Description	Challenges	Description
1. Reduced operating costs	The implementation of green technologies, such as renewable energy systems, makes it possible to reduce energy costs	1. Limited funding	The owners pointed out difficulties in accessing credits for green projects
2. Access to new markets	Family businesses that adopt sustainable practices have been successful in attracting environmentally conscious customers	2. Lack of knowledge	Training in sustainable technologies and regulations is insufficient
3. Reputation enhancement	Sustainability is perceived as an added value by customers and partners	3. Resistance to change	Family businesses often face internal resistance to modifying established processes

Source: Own research

Based on the findings presented, it can be concluded that family businesses play a key role in the transition toward a green economy. While this shift presents important challenges and barriers, it also offers opportunities for these businesses to become leaders in the move toward more sustainable models. Achieving this transformation requires government support through fiscal incentives and clear regulations, the promotion of an organizational culture oriented toward sustainability, and the strategic use of public-private partnerships to overcome financial and technical hurdles.

To support family businesses in embracing the green economy, the following actions are proposed (recommendations):

- Strengthen green financing mechanisms: given that financial constraints are one of the main obstacles to the implementation of sustainable practices, it is recommended to promote preferential credit programs, green investment funds, and public-private cooperation schemes that facilitate access to capital.
- Promote awareness processes and intergenerational training: the resistance to change observed in some family members can be mitigated through training spaces in sustainable management, as well as succession programs that integrate sustainability as part of the family legacy.
- Design differentiated public policies by sector and territory: considering that the results vary according to the context, it is suggested that tax incentives, subsidies and environmental regulations contemplate the heterogeneity of family businesses, so that they respond to the needs of agricultural, manufacturing or renewable energy sectors in a specific way.

- Encourage the creation of collaborative networks: the establishment of alliances between family businesses and other actors (cooperatives, universities, environmental NGOs) can contribute to reducing operating costs, expanding markets and promoting innovation in green practices.
- Promote marketing strategies and international visibility: several of the companies face barriers related to competition and access to markets. In this sense, certification, participation in international fairs and the incorporation of digital platforms can improve the competitiveness and reach of their sustainable products.
- Support research and development (R+D) applied to small family businesses: given that the costs of innovation are high, it is pertinent to encourage collaborative applied research projects that allow micro and small enterprises to access green technologies in a more affordable way.

These recommendations seek not only to address the challenges identified, but also to capitalize on the strengths of the family business, such as its community roots, long-term orientation and intergenerational commitment, in order to consolidate them as key actors in the transition to a green economy.

For future research, it is proposed to carry out this interview with a larger number of family businesses to have a greater scope of the research.

References

- Ahmad, S., Omar, R., & Quoquab, F. (2021). Family firms' sustainable longevity: The role of family involvement in business and innovation capability. *Journal of Family Business Management*, *11*(1), 86-106. DOI: 10.1108/JFBM-12-2019-0081
- Alayón, C. L., Säfsten, K., & Johansson, G. (2022). Barriers and enablers for the adoption of sustainable manufacturing by manufacturing SMEs. *Sustainability*, *14*(4), Article 2364. DOI: 10.3390/su14042364
- Alvarez Vizcarra, G. (2023). Economía circular en el marco de los objetivos de desarrollo sostenible, una oportunidad para la sinergia social. *Telos: Revista de Estudios Interdisciplinarios en Ciencias Sociales*, *25*(3), 868-889. DOI: 10.36390/telos253.19
- Berrone, P., Cruz, C., Gomez-Mejia, L. R., & Larraza-Kintana, M. (2012). Socioemotional wealth and corporate responses to institutional pressures: Do family-controlled firms pollute less?. *Administrative Science Quarterly*, *55*(1), 43-75. DOI: 10.2189/asqu.2010.55.1.82
- Brundtland, G. H. (1987). *Our Common Future*. Oxford University Press.
- Calabrò, A., Vecchiarini, M., Gast, J., Campopiano, G., De Massis, A., & Kraus, S. (2019). Innovation in family firms: A systematic literature review and guidance for future research. *International Journal of Management Reviews*, *21*(2), 317-355. DOI: 10.1111/ijmr.12192
- Díaz-Bravo, L., Torruco-García, U., Martínez-Hernández, M., & Varela-Ruiz, M. (2013). La entrevista, recurso flexible y dinámico. *Investigación en Educación Médica*, *2*(7), 162-167. http://www.scielo.org.mx/scielo.php?script=sci_arttext&pid=S2007-50572013000300009
- Doucet, P., Saidi, S., & Berrone, P. (2025). Circular economy practices in locally rooted family SMEs: A socio-spatial perspective. *Small Business Economics*, *65*(4), 2385-2406. DOI: 10.1007/s11187-025-01060-z
- Eddleston, K. A., & Kellermanns, F. W. (2007). Destructive and productive family relationships: A stewardship theory perspective. *Journal of Business Venturing*, *22*(4), 543-565. DOI: 10.1016/j.jbusvent.2006.06.004
- Gómez-Mejía, L. R., Hoskisson, R. E., & Núñez-Nickel, M. (2001). The global and local implications of family ownership and involvement: Theoretical and empirical perspectives. *Journal of Management Studies*, *38*(2), 185-217. DOI: 10.1111/1467-6486.00236

- Gómez-Mejía, L. R., Muñoz-Bullón, F., Requejo, I., & Sanchez-Bueno, M. J. (2025). Ethical correlates of family control: Socioemotional wealth, environmental performance, and financial returns. *Journal of Business Ethics*, 198(4), 893-917. DOI: 10.1007/s10551-025-05943-9
- González-Vega, A. M. del C., Molina Sánchez, R., López Salazar, A., & López Salazar, G. L. (2022). The qualitative interview as a research technique in the study of organizations. *New Trends in Qualitative Research*, 14, e571. DOI: 10.36367/ntqr.14.2022.e571
- Hart, S. L., & Milstein, M. B. (1999). Global sustainability and the creative destruction of industries. *Sloan Management Review*, 41(1), 23-33.
- Hernández-Perlines, F., Ariza-Montes, A., & Blanco-González-Tejero, C. (2022). Intrapreneurship research: A comprehensive literature review. *Journal of Business Research*, 23, 428-444. DOI: 10.1016/j.jbusres.2022.08.015
- Leach, P. (1993). *La empresa familiar*. Ediciones Granica. <https://books.google.es/books?id=mo6dJf9EuwAC&printsec=frontcover&hl=es#v=onepage&q&f=false>
- Li, J., Wang, Y., Yao, N. C., & Cui, X. (2023). Exploring the effects of socioemotional wealth on environmental strategies of family firms in China: An integrative perspective. *Business Strategy and the Environment*, 32(8), 5368-5381. DOI: 10.1002/bse.3425
- Litz, R. A. (1995). The family business: Toward defining the business system. *Family Business Review*, 8(2), 71-81. DOI: 10.1111/j.1741-6248.1995.00071.x
- Miroshnychenko, I., Miller, D., De Massis, A., & Le Breton-Miller, I. (2025). Are family firms green? Evidence from a cross-national study. *Small Business Economics*, 64, 279-306. DOI: 10.1007/s11187-024-00907-1
- Naude, W. (2010). *Entrepreneurship and Economic Development*. Palgrave Macmillan. DOI: 10.2139/ssrn.2314802
- Núñez-Cacho, P., Molina-Moreno, V., Corpas-Iglesias, F. A., & Cortés-García, F. J. (2018). Family businesses transitioning to a circular economy model: The case of a Spanish family business. *Sustainability*, 10(2), 1-15. DOI: 10.3390/su10020538
- OECD. (2011). *Towards green growth*. Organisation for Economic Co-operation and Development. DOI: 10.1787/9789264111318-en
- Porter, M. E., & Kramer, M. R. (2006). Strategy and society: The link between competitive advantage and corporate social responsibility. *Harvard Business Review*, 84(12), 78-92. <https://hbr.org/2006/12/strategy-and-society-the-link-between-competitive-advantage-and-corporate-social-responsibility>
- Putritamara, J. A., Hartono, B., Toiba, H., Utami, H. N., Rahman, M. S., & Masyithoh, D. (2023). Do dynamic capabilities and digital transformation improve business resilience during the COVID-19 pandemic? Insights from beekeeping MSMEs in Indonesia. *Sustainability*, 15(3), 1760. DOI: 10.3390/su15031760
- Sachs, J. D. (2015). *The age of Sustainable Development*. Columbia University Press.
- Sharma, P., & Nordqvist, M. (2008). A classification scheme for family firms: From family values to effective governance to firm performance. In: J. Tàpies, J. L. Ward (Eds.), *Family values and value creation. A family business publication*. Palgrave Macmillan. DOI: 10.1057/9780230594227_5
- Sundaramurthy, C. (2008). Sustaining trust within family businesses. *Family Business Review*, 21(1), 89-102. DOI: 10.1111/j.1741-6248.2007.00110.x
- UNEP. (2011). *Towards a green economy: Pathways to sustainable development and poverty eradication*. United Nations Environment Programme. <https://www.unep.org/resources/report/towards-green-economy-pathways-sustainable-development-and-poverty-eradication-16>
- WCED. (1987). *Report of the World Commission on Environment and Development. Our common future*. Oxford University Press.
- Zellweger, T. M., Nason, R. S., Nordqvist, M., & Brush, C. G. (2013). Why do family firms strive for nonfinancial goals? An organizational identity perspective. *Entrepreneurship: Theory and Practice*, 37(2), 229-248. DOI: 10.1111/j.1540-6520.2011.00466.x
- Zellweger, T. M., Eddleston, K. A., & Kellermans, F. W. (2010). Exploring the concept of familiness: Introducing family firm identity. *Family Business Review Strategy*, 1(1), 54-63. DOI: 10.1016/j.jfbs.2009.12.003

Appendix 1

The questions asked in the interview were the following:

Characteristics of the family business

1. Economic sector to which it belongs:
 - a) Agricultural;
 - b) Manufacturing;
 - c) Renewable energies;
 - d) Trade.
2. Geographical location of the company:
 - a) Urban;
 - b) Rural.
3. Company size:
 - a) Medium;
 - b) Small;
 - c) Micro.
4. Age of the company
 - a) Over 20 years old;
 - b) Between 10- and 20-years old;
 - c) Less than 10 years old.

Knowledge and perception of the green economy

5. Has knowledge about the green economy
6. The company adopts green practices
 - a) Applies green strategies;
 - b) In transition;
 - c) Incipient interest.
7. What kind of green practices do you apply in the company?

Benefits, challenges and barriers

8. What challenges have arisen when implementing the green economy in the company?
9. What barriers have been presented when implementing the green economy in the company?
10. What benefits have you perceived with the implementation of the green economy in the company?

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ZIELONA GOSPODARKA I FIRMA RODZINNA: MIĘDZY WYZWANIAM I NOWYMI MOŻLIWOŚCIAMI

Streszczenie: Firmy rodzinne odgrywają kluczową rolę w gospodarce światowej, a przyjmując zasady zielonej gospodarki, mogą zwiększyć zarówno swoją konkurencyjność, jak i zrównoważony rozwój. Wiąże się to z integracją praktyk odpowiedzialnych za środowisko, takich jak efektywne wykorzystanie zasobów, redukcja emisji zanieczyszczeń i przyjęcie odnawialnych źródeł energii. Celem jest zidentyfikowanie szans i wyzwań, przed którymi stoją firmy rodzinne, włączając zieloną gospodarkę do swoich strategii biznesowych. Zastosowano metodologię jakościową, w ramach której przeprowadzono częściowo ustrukturyzowane wywiady z piętnastoma właścicielami firm rodzinnych z sektora rolnictwa, produkcji, handlu i energii odnawialnej zlokalizowanych w centralnym regionie Coahuila w Meksyku. Kluczowe wnioski wskazują na takie możliwości jak wzmocnienie reputacji firmy i zróżnicowanie w wysoce konkurencyjnym środowisku. Firmy rodzinne napotykają jednak na poważne przeszkody, jak np. brak wsparcia finansowego, ograniczona wiedza na temat zrównoważonych technologii oraz opór przed zmianami, które mogą utrudnić transformację. Aby sprostać tym wyzwaniom, niezbędne jest wsparcie rządowe w postaci zachęt podatkowych i jasnych regulacji, wspieranie kultury organizacyjnej zorientowanej na zrównoważony rozwój oraz wykorzystanie potencjału partnerstw publiczno-prywatnych w celu pokonania barier finansowych i technicznych.

Słowa kluczowe: firmy rodzinne, zielona gospodarka, szanse i wyzwania

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