

Resilience in the Face of Climate Change: How African Family Businesses Navigate Environmental Risks While Sustaining Financial Performance?

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Abstract: Climate change poses rising threats to family enterprises, compromising their operational continuity and financial stability as well. This paper investigates how these companies may create resilience plans to lower these risks while preserving financial success. This paper emphasizes the need for adaptive governance, long-term planning, and sustainable practices by means of a qualitative technique grounded on 33 semi-structured interviews with owners and managers of family companies. The results imply that family companies that are highly committed to environmental, social, and governance (ESG) standards are more suited to negotiate climate-related problems. This study advances knowledge of how family firms could be resilient at a time of environmental instability by means of analysis of their experiences and strategic approaches. Our findings emphasize the requirement of proactive risk management and ongoing adaptation in order to strike sustainability with financial goals.

Keywords: Family Business, Resilience, Climate Change, Financial Performance, Sustainability, ESG Standards

JEL Classification: G32, M14

1. Introduction

Climate change has evolved in recent years from a long-term environmental problem to a serious worldwide threat influencing all spheres of economic and social life (Tonya & Mbeye, 2017). In Africa, where agriculture and natural resources generally define economies, the consequences of climate change are especially severe. Rising temperatures, erratic rainfall, droughts, and floods are becoming more common and extremely disruptive for companies functioning in these sensitive areas. Not exempt from these disturbances are family companies, which account for a significant portion of the economic terrain in many African nations. Often spanning many generations (Akaa et al., 2024), these companies face the double challenge of maintaining their financial success and protecting the history they have created over time. Therefore, not only for their survival but also for their ongoing contribution to regional economies, devising plans that increase resilience against the uncertainties of climate change is vital.

With a lot of family-owned companies and usually strong relationships to local communities, Africa's economic system stands quite differently from that of other continents. Especially in rural and semi-urban regions where access to official employment is restricted, these companies are vital for job generation, innovation, and social stability. Structural flaws, like limited financial resources, inadequate infrastructure, and undeveloped markets, however, often hinder their ability to withstand climate-induced shocks. The fact that many African family companies run in industries like manufacturing, tourism, and agriculture that are very sensitive to environmental change accentuates this fragility. The possible effects of climate change on these industries compromise not just the financial viability of particular companies but also the larger economic fabric in which they are woven (Björnberg & Nicholson, 2007).

There are many reasons to solve this issue. First, African family firms frequently lack the financial markets, sophisticated technology, and strong laws supporting sustainability initiatives that family businesses in affluent nations have access to (Adedayo & Osazuwa, 2017). This makes knowledge of how resilience could be developed in settings with inadequate outside help desperately needed. Second, the decision-making process is more

difficult in family firms as they are intergenerational (Akaa et al., 2024). Older generations, who could be more preoccupied with short-term financial security, run hazards from climate change that might not be completely known or handled by them. Younger generations, however, are sometimes more sensitive to the necessity of sustainable practices and the long-term advantages of including ESG standards (Neubauer & Lank, 2016). This generational conflict affects the creation of financially feasible and ecologically sustainable resilience plans even more.

The larger backdrop of Africa's development objectives accentuates the gravity of the issue (Cho et al., 2017). Many African nations want to solve social inequity and environmental damage at the same time as attaining sustainable economic development. Given their presence in many different fields, family firms have great power to help to achieve these goals. Nevertheless, they may not be able to realize this potential without efficient plans to control climate threats. Moreover, African family companies run the danger of being left out of worldwide markets and alliances if they neglect to match their operations with developing global sustainability requirements as global emphasis on ESG criteria increases. This makes the inclusion of resilience methods not just a need for survival but also a fundamental element for long-term competitiveness (Linnenluecke & Griffiths, 2010).

This paper aims to investigate how African family companies may create resilience plans allowing them to control climate hazards while preserving their financial performance. The study intends to close a gap in the literature by concentrating on the particular context of African family companies, therefore filling a void in the body of knowledge mostly focused on resilience in big firms or family businesses in more developed countries. The results of the research will help to clarify the particular dynamics at work in African family companies and provide useful advice on how these companies may flourish in the face of environmental hazards. Using 33 semi-structured interviews with family company owners and managers from many different industries, the study uses a qualitative technique. These interviews provide in-depth viewpoints on the approaches under use as well as the difficulties in balancing sustainability with financial goals.

Following this introduction, the theoretical framework around family business resilience, ESG standards, and climate change will be discussed in this essay with specific emphasis to the African setting. The part on the methodology will go over the study design, including the use of interviews as the main data collecting technique. The major conclusions of the results section will be examined with respect to current theories and approaches. At last, the conclusion will stress important findings and provide suggestions for family companies, legislators, and further studies. With an eye on family enterprises in Africa, this research seeks to provide practical advice for these vital players negotiating the changing terrain of climate hazards and sustainability.

2. Literature Review

2.1. Developing Resilience in Family Businesses: Climate Change Adaptation and Its Effect on Financial Performance

Often hailed for their ability to withstand social and economic problems, family companies today face a new and previously unheard-of threat: climate change (Kaesehage et al., 2019). Family companies are especially susceptible in Africa, where environmental hazards such as droughts, floods, and shifting weather patterns are becoming more noticeable because of their usually confined activities and limited resources. Not just for their survival but also for the preservation of family legacies often spanning centuries, the capacity to adapt to these hazards becomes vital. Nowadays, developing plans that improve resilience against climate hazards is essential for family-owned businesses all throughout the continent (Linnenluecke & Griffiths, 2010).

In the framework of family companies, resilience transcends conventional risk control. It calls for reevaluating company models and decision-making procedures as well as being ready to respond to erratic environmental changes. Because of their special governance systems (Adendorff & Halkias, 2014), family businesses can approach resilience differently than non-family-owned companies. Usually stressing long-term planning and continuity—two essential elements of resilience—these companies also stress. Still, climate change brings a degree of unpredictability that calls for more creative and nimble solutions. Family companies have to change their resilience plans to meet this increasing challenge so they may not only survive but also maintain their financial success over time.

Studies showing resilience is improved when companies include sustainability into their main agendas abound (Adendorff & Boshoff, 2011). This often implies incorporating ESG concerns into family companies' operations. Adopting sustainable practices helps companies reduce the dangers related to climate change and also help them to seize fresh prospects (Galbreath, 2011). For many African family companies, however, the difficulty is balancing these long-term sustainability objectives with the more pressing needs of preserving financial stability. In places where infrastructure, finance, and technology are scarce, this balancing effort is particularly challenging.

The resilience tactics of family firms are much shaped by their governance systems. Studies of companies with flexible, inclusive governance structures have shown that they are more suited to withstand outside shocks like those resulting from climate change. Making swift and wise judgments might be restricted in family enterprises, because decision-making is often confined within a small group or a single generation. In Africa, where many family companies run in highly sensitive to environmental concerns industries like tourism and agriculture, the ability to react fast is vital (Cho et al., 2017). Building resilience in these companies depends on encouraging fresh viewpoints and intergenerational communication (Akaa et al., 2024).

A fundamental issue for any company, financial success is intimately related to attempts at resilience-building. Particularly in resource-strapped African countries, family businesses may find the expenses of climate adaptation unacceptable (Uwamahoro & Twesige, 2020). Evidence, however, points to companies that make investments in resilience—that is, those who choose renewable energy or enhance supply chain sustainability—are more likely to be financially successful over long terms. Along with shielding companies from environmental disturbances, these investments improve their efficiency and, over time, lower running expenses. Thus, when correctly used, resilience techniques may directly help family companies to be financially stable (Ferreira et al., 2021).

Resilience techniques have great promise, but African family businesses have been sluggish to embrace measures of climate change adaptation. Many of these companies run in settings where government encouragement of sustainable practices is lacking and finance for green projects is not easily available (Adedayo & Osazuwa, 2017). Family firms could therefore be reluctant to make the required technological and infrastructural investments for climate resilience. Still, there is increasing understanding that inaction now might result in far worse financial losses down the road. Long-term performance of family firms which actively include climate adaptation into their plans is probably going to be better (Adomako et al., 2019).

Furthermore influencing their attitude to resilience is the emotional bond many family company owners have to their organizations. Although this relationship may provide strength, encouraging dedication and long-term planning, it can also impede required adjustments. Even if using new technology or changing their conventional business models is crucial for climate adaptation, family companies might be more resistant to these developments (Reddy & Balachandra, 2006). But when family values line up with environmental objectives, companies may discover that resilience methods improve family legacy preservation as well

as financial success. Rather than a negative cost, this alignment might make climate adaptation a competitive benefit (González et al., 2012).

The research emphasizes how crucial outside collaborations are to helping family companies be resilient. Providing the tools and knowledge required to achieve climate resilience depends critically on governments, NGOs, and financial institutions. These alliances are particularly helpful for African family companies, who may lack the financial and technical ability to apply comprehensive resilience plans on their own. Working with outside stakeholders helps family companies to access fresh information, technology, and funding sources that enable more practical and successful climate adaptation (González et al., 2012). Resilience of family companies also depends much on innovation. Though it presents major hazards, climate change also gives companies chances for innovation. Investing in innovative technologies—such as water-efficient agricultural or energy-saving manufacturing techniques—helps family companies not only lower their environmental footprint but also acquire a competitive advantage. Family firms that welcome innovation are more suited to survive in Africa, where the consequences of climate change are especially severe (Kolk & Pinkse, 2005; Björnberg & Nicholson, 2007). These companies may enter new sectors and draw customers growingly worried about sustainability.

Resilience and financial success have a complex relationship not necessarily clear-cut or instantaneous. Adopting climate adaptation measures may appear overwhelming for many family companies, particularly those in emerging countries, in the near term. Still, the long-term gains usually exceed these upfront expenses. Companies that neglect to make resilience investments run behind as environmental hazards keep expanding. On the other hand, those that tackle climate adaptation pro-actively may improve operational efficiency, lower costs, and draw investment, thereby strengthening their financial situation (Hou, 2019).

In essence, sustaining financial success and adjusting to climate change depend on resilience developed in family enterprises (Lawson et al., 2019). African family enterprises have particular difficulties including low resources and strong reliance on sectors susceptible to climate change. These companies may create strong resilience plans, nevertheless, by including ESG standards, supporting flexible governance (Adendorff & Halkias, 2014), and welcoming innovation. These approaches clearly have long-term financial advantages even if their initial outlay may appear excessive. Family companies that give resilience first priority will be more suited to negotiate the obstacles ahead and safeguard their financial future as the consequences of climate change are more evident.

Resilience in family businesses is ultimately about making sure companies keep growing and support the social and economic fabric of their local communities, not just about survival. African family companies have the chance to set an example by showing how sustainability and resilience could coexist with financial success as they adjust to the reality of climate change (Björnberg & Nicholson, 2007). These companies' fate will rely on their capacity to welcome change and create in response to a fast changing surroundings.

2.2. Integration of ESG Criteria in African Family Businesses for Climate Resilience Addresses Sustainability and Financial Viability

A key component of business sustainability, the integration of ESG principles has attracted a lot of interest lately. Adopting ESG ideas goes beyond meeting outside needs for African family companies (Ifekwem, 2018); rather, it is considered as a required tactic for creating resilience against climate change. ESG standards provide a structure for companies to match their activities with social responsibility, environmental sustainability, and good governance, therefore laying a solid basis for long-term financial success. Although many African family companies would find this strategy fresh, its applicability to their survival and expansion in a future marked by climate change is growingly clear (Kaesehage et al., 2019).

Including ESG ideas into family businesses forces one to reconsider conventional wisdom on sustainability. African family companies often run in areas like tourism, energy, and agriculture that are susceptible to climate change (Björnberg & Nicholson, 2007). Using ESG criteria helps these companies to solve environmental issues such as carbon emissions and resource depletion as well as create social effects including fair labor policies and community involvement. Apart from this, maintaining long-term corporate performance depends critically on reforms in governance (Adendorff & Boshoff, 2011), which include openness and responsibility in decision-making. Including these aspects into company operations is not a luxury anymore; rather, it is a need for companies trying to stay competitive and strong in the current market.

Understanding how to convert ESG ideas into practical activities that provide both sustainability and financial success is a fundamental difficulty for African family companies (Ifekwem, 2018). Many family-owned companies run under financial restrictions and may not have the knowledge needed to apply thorough ESG plans. Research indicates, nonetheless, that companies that give ESG integration top priority usually gain from better risk management, more operational efficiency, and more capital availability. Globally as well as domestically, investors are choosing businesses that show a dedication to sustainable practices more and more, therefore ESG adherence is not just a question of compliance but also a major engine of financial development (Jideofor & Ngozi, 2023).

Within African settings, the social component of ESG is very crucial. Often strongly ingrained in their communities, family enterprises have great social obligations and relationships. These companies might be transforming agents in tackling social concerns like poverty reduction, education, and healthcare as well as in supporting environmental sustainability (Olson et al., 2003). African family companies may generate shared value that helps their bottom line as well as their communities by emphasizing the social component of ESG. Their resilience in a fast changing environment, where the well-being of local communities is frequently directly related to corporate performance (Adomako et al., 2019), is improved by this double attention on social effect and financial viability.

As climate-related risks keep rising, the environmental component of ESG is become even more important for African family companies. Many companies now understand that their long-term survival depends on sustainable resource management—that which relates to water, electricity, or raw materials. Climate change has made companies even more obliged to lessen their environmental impact and follow more sustainable policies (Burton & Otte, 2022). Through cost savings and increased operational efficiency, family companies may not only lessen their environmental impact but also improve their financial results by including ESG-driven projects such as renewable energy utilization, effective waste management, and lowered emissions.

Integrating ESG standards for climate resilience calls for equally significant governance. Strong governance systems enable family companies to make wise choices that strike a compromise between the need of financial success and sustainability (Adendorff & Halkias, 2014). Improving governance methods may greatly improve decision-making processes for African family enterprises, which are frequently run by a small number of family members, particularly in terms of balancing immediate financial needs with long-term sustainability objectives. Whether via advisory boards or alliances, this often calls for the participation of outside viewpoints to guarantee that immediate financial concerns do not eclipse ESG factors.

The perceived trade-off between sustainability investments and financial returns is one of the main obstacles to ESG acceptance in African family companies. Many company owners worry that the expenses related to sustainable practices—such as funding green technology or improving social projects—would compromise their financial situation (Jideofor & Ngozi, 2023). Still, data points point to these worries as being baseless. Studies of

organizations with high ESG performance have shown that over time, they often beat their rivals financially (Mwaura et al., 2023). This is so because sustainable practices usually result in operational gains, improved brand recognition, and greater access to capital—all of which support a more strong financial situation.

The increasing congruence between ESG performance and market access is another main benefit of integrating ESG criteria into family companies. Companies that follow ESG criteria are more likely to be able to access overseas trade prospects, draw foreign investments, and create strategic alliances as worldwide markets give sustainability top priority. African family companies aiming to grow outside of their own markets especially should pay close attention to this. These enterprises may increase their competitiveness and access fresh income sources that would otherwise be unreachable to businesses who reject ESG ideas by proving a dedication to sustainability.

Apart from enhancing market access, the acceptance of ESG standards may help family companies to be innovative. Many times, sustainable practices call on companies to rethink their operations in ways that fit social and environmental objectives, including their goods and services. This change may inspire creativity and result in the creation of fresh goods or services satisfying changing wants of customers. ESG-driven initiatives provide African family businesses—where innovation may be a major difference in competitive markets—an chance to keep ahead of industry trends and simultaneously increase resilience and financial performance (Linnenluecke & Griffiths, 2010).

Even while ESG integration offers obvious advantages, many African family companies are still reluctant to commit totally to sustainability projects. Lack of understanding, budgetary restrictions, or corporate opposition to change might all help to explain this reticence. But as the consequences of climate change are more noticeable, the need of implementing ESG principles will only grow. Companies that still see sustainability as a peripheral or optional issue run behind in terms of financial performance and competitive posture (Adomako et al., 2019). Conversely, those that see ESG as a pillar of their company plan are probably going to show up stronger and more resilient against upcoming obstacles.

Ultimately, including ESG standards into African family companies is a vital first step in guaranteeing long-term financial viability and developing climate resilience. Family companies may reduce the dangers presented by climate change and improve their financial performance at the same time by matching sustainability objectives with corporate operations. This strategy guarantees that they help to improve the social and environmental fabric of their local areas in addition to strengthening their standing in the marketplace (Adomako et al., 2019). African family companies which follow ESG standards will be more suited to flourish in the future while still honoring their beliefs and legacy as world trends give sustainability top priority.

In the end, African family companies trying to attain resilience in a world impacted by climate change must integrate ESG not just as a trend but also as a need. Sustainable development is created by the connection of environmental, social, and governance issues with financial performance (Adendorff & Boshoff, 2011), therefore guaranteeing the survival and profitability of family companies for the next generations. The possibility for African family businesses to lead in sustainability and financial success will only increase as more companies understand the benefits of ESG, therefore providing a model for resilience in the worldwide corporate scene.

3. Methodology

Using an interpretivist methodology, this study aims to comprehend the subjective experiences and viewpoints of people living in the particular setting of family enterprises throughout Africa. This research would be especially appropriate for the interpretivist approach, as it enables a thorough investigation of how managers and owners of family businesses see climate change

hazards and the solutions they use to create resilience while maintaining financial success. A qualitative approach was decided to be the most suitable to capture the depth of the participants' experiences and insights, considering the complexity of these problems and the special traits of family businesses.

Semi-structured interviews were the main instrument of data collection for this research. Semi-structured interviews let one strike a mix between the rigidity to probe developing ideas throughout the discussion and organized questions. This structure allowed family company owners to openly express their ideas and guarantee that important subjects pertinent to the study were addressed, therefore helping them to grasp the complex points of view. Every interview ran 45 minutes to 1.5 hours, which gave plenty of opportunity for in-depth conversation on the main subjects of financial sustainability, ESG integration, and climate change resistance. The conversational approach of the interviews allowed participants to reflect on their personal and professional experiences, thereby offering an insightful analysis of the particular difficulties that family companies in Africa face.

Using theme content analysis, data analysis was carried out. This approach lets one find, examine, and document data-based patterns (themes). Because it helps to arrange and analyze data in a manner that catches the richness of the interview replies while spotting the main recurrent themes, theme content analysis is especially well-suited to qualitative research. The research topic focused on the ways family companies incorporate sustainability into their operations and the supposed effects of these approaches on their financial situation. Several phases of topic analysis were done, including familiarizing with the data, coding, and theme development. This iterative method guaranteed that the research stayed firmly based on the facts and enabled fresh ideas on family business governance and climate change resistance to develop.

Thirty-three semi-structured interviews in all were done with managers and owners of family enterprises in different spheres throughout Africa. The sample was selected to guarantee a wide spectrum of sectors, firm sizes, and generational phases within the family business. With a code assigned to every respondent, the sample is thoroughly described below thereby guaranteeing the anonymity of every participant.

Table 1. Sample of our qualitative research

Code	Interviewee	Sector	Size of the Company	Generation	Justification for Interview	Duration of the Interview	Location of the Company
FB01	CEO of a third-generation family-owned agricultural business	Agriculture	200 workers	Third generation	Experience in navigating climate risks in agriculture	1 hour	Casablanca, Morocco
FB02	Head of finance of a second-generation family-owned textile company	Textile	120 workers	Second generation	Challenges in balancing sustainability and profit margins	1 hour 15 minutes	Remote (Morocco)
FB03	Owner and managing director of a family-run tourism business	Tourism	50 workers	Second generation	Impact of climate change on tourism and eco-friendly initiatives	45 minutes	Remote (Senegal)
FB04	Senior executive of a first-generation manufacturing company	Manufacturing	300 workers	First generation	Leadership in implementing renewable energy solutions	1 hour	Remote (Egypt)
FB05	Co-founder of a second-generation family-owned construction firm	Construction	150 workers	Second generation	Efforts to integrate sustainable building materials	1 hour 20 minutes	Remote (Côte d'Ivoire)

FB06	CEO of a third-generation family-owned logistics company	Logistics	500 workers	Third generation	Strategies for reducing carbon footprint through fuel efficiency	1 hour	Remote (Cairo, Egypt)
FB07	Second-generation owner of a family-run retail business	Retail	75 workers	Second generation	Managing water shortages and supply chain disruptions	1 hour 10 minutes	Remote (Senegal)
FB08	Owner of a first-generation family business in renewable energy	Renewable Energy	100 workers	First generation	Role of ESG in solar energy projects and financial impact	1 hour 5 minutes	Remote (Tunisia)
FB09	Head of operations for a second-generation family-owned mining company	Mining	250 workers	Second generation	Environmental responsibility in mining and maintaining profitability	50 minutes	Remote (Gabon)
FB10	Senior manager of a third-generation family-owned food processing company	Food Processing	200 workers	Third generation	Challenges in sourcing sustainable raw materials	1 hour	Remote (Abidjan, Côte d'Ivoire)
FB11	Owner of a second-generation family-owned agricultural export business	Agricultural Exports	350 workers	Second generation	Focus on exporting sustainable agricultural products	1 hour	Remote (Senegal)
FB12	Head of marketing for a family-owned cosmetics company	Cosmetics	200 workers	Second generation	Leadership in promoting sustainable cosmetic products	1 hour	Remote (Côte d'Ivoire)
FB13	Co-founder of a third-generation family-owned transport company	Transport	150 workers	Third generation	Innovative transport solutions in a climate-sensitive region	45 minutes	Remote (Tunisia)
FB14	Managing director of a first-generation family business in eco-tourism	Eco-tourism	80 workers	First generation	Pioneer in eco-tourism and sustainability practices	1 hour 30 minutes	Remote (Gabon)
FB15	CFO of a family-run second-generation manufacturing business	Manufacturing	300 workers	Second generation	Financial expertise in managing sustainability investments	1 hour	Casablanca, Morocco
FB16	CEO of a second-generation family-owned textile firm	Textile	220 workers	Second generation	Adoption of sustainable textile production processes	50 minutes	Remote (Morocco)
FB17	Owner of a third-generation family-owned construction business	Construction	400 workers	Third generation	Use of green materials in construction projects	1 hour	Remote (Senegal)
FB18	CEO of a family business in renewable energy	Renewable Energy	90 workers	First generation	Leader in promoting solar energy adoption	1 hour	Casablanca, Morocco
FB19	Co-founder of a second-generation technology services business	Technology	150 workers	Second generation	Technology-driven solutions for sustainable business practices	1 hour 10 minutes	Remote (Tunisia)
FB20	Director of operations of a third-generation food distribution company	Food Distribution	300 workers	Third generation	Sustainability initiatives in food distribution chains	1 hour	Remote (Gabon)

FB21	Head of sustainability for a second-generation chemical company	Chemical	250 workers	Second generation	Commitment to reducing chemical waste in production	45 minutes	Remote (Morocco)
FB22	CEO of a family-owned farm specializing in sustainable agriculture	Sustainable Agriculture	110 workers	First generation	Sustainability initiatives in small-scale farming	1 hour	Remote (Dakar, Senegal)
FB23	Co-founder of a family-owned forestry business	Forestry	180 workers	Second generation	Efforts in reforestation and forest management	1 hour 15 minutes	Remote (Cairo, Egypt)
FB24	Managing partner of a family-owned architectural firm	Architecture	100 workers	Second generation	Sustainable architecture and green building projects	1 hour	Remote (Abidjan, Côte d'Ivoire)
FB25	Director of a second-generation family-owned leather goods company	Leather Goods	75 workers	Second generation	Sustainability in sourcing materials for leather goods	1 hour	Remote (Gabon)
FB26	Owner of a third-generation logistics company	Logistics	500 workers	Third generation	Logistics improvements to reduce environmental impact	1 hour 20 minutes	Remote (Tunisia)
FB27	Founder of a family-owned fashion design company	Fashion	90 workers	First generation	Sustainable fashion practices and eco-friendly materials	1 hour	Remote (Cairo, Egypt)
FB28	Co-owner of a family-owned seafood export company	Seafood Export	100 workers	Second generation	Sustainable sourcing of seafood products	1 hour 10 minutes	Remote (Morocco)
FB29	Director of a family-owned hospitality business	Hospitality	200 workers	Third generation	Leadership in promoting green practices in hospitality	45 minutes	Remote (Gabon)
FB30	Owner of a family business in renewable energy	Renewable Energy	80 workers	First generation	Innovative use of solar and wind energy	1 hour	Remote (Senegal)
FB31	CEO of a family-owned software company	Software	150 workers	First generation	Development of energy-efficient software solutions	1 hour 15 minutes	Remote (Côte d'Ivoire)
FB32	Co-founder of a third-generation family-owned real estate firm	Real Estate	120 workers	Third generation	Green real estate development	1 hour	Remote (Tunisia)
FB33	CFO of a family-owned agribusiness	Agribusiness	400 workers	Second generation	Leadership in sustainable farming practices	1 hour 5 minutes	Remote (Morocco)

4. Results and Discussion

4.1. Views on Climate Change and Financial-Driven Resilience Plans

Although African family companies have different opinions on climate change, a unifying thread is the increasing awareness of how directly it affects their operations (Burton & Otte, 2022). Many of the respondents admitted that their supply chains and manufacturing processes had been disturbed by environmental changes like droughts, erratic rainfall, and increasing temperatures. *"We have been seeing the effects of climate change in the quality and yield of our crops for the*

last decade; it is no more something distant; it is affecting our bottom line every season," one Moroccan agriculture-related interviewee (FB01) said. This view is shared by companies in manufacturing, tourism, and food distribution among other sectors.

Even with this general awareness, family companies' adoption of resilience methods differs in urgency. Acknowledging the long-term financial advantages of doing so, several companies have aggressively included climate adaptation strategies (Aharanwa, 2021). For instance, an Egyptian textile company (FB06) said, *"We knew that if we didn't start implementing water-saving technologies, our production costs would soar in the coming years. It was not just about sustainability; it was a financial necessity."* This underlines the two motivations for resilience strategies: mitigating environmental risks and securing financial sustainability (Aharanwa, 2021).

Other companies, especially those running on smaller margins, indicated reluctance to implement climate-related policies because of the supposed upfront expenses. *"We know we need to do something about climate change, but the investments required to switch to renewable energy or improve our infrastructure are significant. Right now, we are just trying to stay profitable. This sentiment reflects the challenge many businesses face in balancing immediate financial pressures with long-term sustainability goals,"* said an interviewee from a family-run retail company in Senegal (FB07).

Many family companies find that their financial planning is intimately related to the inclusion of resilience tactics. Many of the interview subjects said that possible long-term financial savings motivated their acceptance of sustainable methods. Other companies that have seen the financial gains of including sustainability into their operations have also reflected this point of view: *"We started using eco-friendly materials not because we were forced to, but because they reduced our energy costs by 20%. It's a win-win situation for us."* A second-generation construction company in Gabon (FB18) explained.

Fascinatingly, companies in many different fields find distinct difficulties matching their resilience plans with financial success. *"Our clients expect us to be eco-friendly, but implementing solar panels and waste management systems has been a huge investment. While we understand it's good for the environment and can attract more customers,"* the interviewee from a family-owned eco-lodge in Tunisia (FB08) underlined in the tourism sector, stressing the difficulty of competing with larger players. Here, the tension between meeting customer expectations for sustainability and maintaining financial stability becomes clear.

The role ESG elements play in designing resilience plans also surfaced from the interviews. Family companies using ESG standards saw gains in their financial performance as well as in their environmental effect. *"When we implemented ESG practices, our investors took notice. We received better financing terms and were able to expand our business faster than expected,"* said a third-generation food processing company CEO in Côte d'Ivoire (FB10), stressing the connection between sustainability initiatives and financial gains particularly in attracting investors who give ESG criteria top priority.

Still, several of the respondents voiced doubts about the financial feasibility of various resilience plans. With some seeing family businesses as an opportunity and others as a financial risk, a senior executive from a mining company in Morocco (FB09) said, *"We've looked into integrating more sustainable practices, but for us, the costs far outweigh the benefits. We don't see how we can maintain profitability while implementing these changes."*

For companies that have effectively combined resilience measures, operational savings have frequently determined the financial gains. *"We invested in more fuel-efficient trucks and streamlined our logistics network,"* said a family-owned logistics company in Egypt (FB06), *"not only did this reduce our carbon footprint, but it also cut our fuel costs by 15% in the first year."* This example shows how businesses might get both environmental and financial gains by means of deliberate sustainability investments.

Nevertheless, different family companies have different access to resources, which influences their capacity to implement financially driven resilience solutions. The differences in access to cash and technology between bigger family companies and smaller ones came across often in the interviews. *"We want to make changes, but we don't have the financial backing that bigger companies have. The initial investments are too high for us,"* a family company in the textile sector in Gabon (FB18) complained, stressing the difficulties smaller businesses have in implementing plans calling for high upfront costs.

Long-term planning is another component of financially motivated resilience methods. Many respondents underlined the importance of changing perspective from concentrating only on temporary financial success to contemplating long-term sustainability. *"My father was focused on getting through the next harvest, but I was looking at how we could make the business survive for the next 50 years. That means we have to invest in sustainability now, even if it's expensive. This shows how a long-term financial outlook can drive the adoption of resilience strategies in family businesses,"* said a second-generation agribusiness owner in Côte d'Ivoire (FB10).

Many family enterprises, in spite of financial difficulties, showed a strong will to create resilience against climate change. *"We don't have a choice. If we don't adapt, we'll be out of business in a few years. It's about survival, and we're willing to make the financial sacrifices now to ensure our future,"* said an interviewee from a third-generation logistics company in Morocco (FB01), highlighting the increasing awareness among family businesses that climate adaptation is not only an environmental but also a financial imperative.

In essence, the way African family companies see climate change is closely related to their financial decisions. While some companies battle the immediate implementation expenses, others see resilience techniques as a required investment for long-term financial stability. Still, the interviews point to many people who have already seen financial gains from including sustainable practices—from reduced costs to better investor relations. Family companies' resilience and future success depend critically on their capacity to reconcile financial constraints with sustainability as they negotiate the complexity of climate change (Burton & Otte, 2022).

4.2. Intergenerational Leadership and the Financial Decision-Making in Climate Adaptation

In family companies especially, intergenerational leadership is clearly important in determining climate adaptation plans (Arinze, 2022; Akaa, Kwahar, and Hanmaikyur, 2024). Many of the respondents spoke about how changes in attitudes and financial decision-making concerning climate resilience resulted from generational transitions. *"When my father was running the business, sustainability wasn't priority. Now that I have taken over, we're making financial investments in renewable energy and water-saving technologies. It's expensive, but I see it as essential for our future,"* the CEO of a second-generation textile company in Morocco (FB02) said, reflecting on this dynamic.

While elder family members stay focused on conventional business methods, some companies have difficulty when younger generations argue for climate adaptation techniques (Akaa et al., 2024). *"My grandfather built this company based on traditional farming methods,"* an interviewee from a third-generation agricultural export company in Senegal (FB11) said, *"Convincing him that we need to change how we operate and invest in sustainability has been difficult, especially when the financial returns are not immediate."* This sentiment reveals how intergenerational tensions can slow the adoption of climate adaptation measures, particularly when financial returns are uncertain in the short term. One major cause of conflict in intergenerational leadership transitions is the financial component of climate adaptation (Arinze, 2022). While elder family members may be more concerned with maintaining short-term profitability, younger family members frequently see climate

adaptation as an investment in the long-term viability of the company. A second-generation seafood export company owner in Gabon (FB19) said, *"I've been pushing for us to invest in more sustainable practices, but my father is worried about the costs. He does not see the immediate financial benefits, but I know that in ten years, this will pay off. This shows the long-term financial vision younger generations often bring to the table."*

Many of the respondents pointed out how younger generations' financial decisions are influenced by their greater sensitivity to the social and environmental elements of ESG criteria. *"My brother and I are more focused on integrating ESG into our business model because we see how it impacts our reputation and our access to financing. The older generation did not prioritize this, but now it's part of every financial decision we make,"* said a third-generation owner of a family-owned software company in Tunisia (FB20), stressing the changing character of financial planning in family businesses, where climate adaptation is progressively seen as a means of ensuring long-term financial viability.

The way companies handle risk management also clearly shows the financial consequences of changes in generational leadership (Arinze, 2022). Despite the financial risks involved, an interviewee from a second-generation real estate company in Côte d'Ivoire (FB32) explained how the younger generation pushed for measures of climate resilience. *"We decided to invest in green buildings and renewable energy, even though it required taking on more debt. My father was hesitant, but we convinced him that this is the future of real estate, and the financial returns would come."* This case shows how younger generations are often ready to take bigger financial risks to secure long-term environmental and financial resilience.

Sometimes the generational change is greeted with opposition not related to the financial expenditure but rather from ignorance of the financial advantages of climate adaptation. *"My father doesn't believe that spending money on sustainability will help the business. He thinks it's just a cost without any benefit. But I've seen the numbers—our energy costs are going down, and we're attracting more investors because of our ESG practices,"* said a second-generation agribusiness owner in Côte d'Ivoire (FB10), stressing the need of showing the financial returns of climate adaptation to older family members who could be resistant to change.

Notwithstanding these difficulties, a number of respondents claimed effective intergenerational cooperation in putting financially motivated climate adaptation plans into action. *"My father and I had different views on how to approach climate risks. But once we sat down and went through the financials together, he understood that the investments we're making now will save us money in the long run. It's about protecting the family business for future generations,"* said a third-generation Moroccan building company (FB05), stressing the need of communication and financial transparency in overcoming intergenerational differences.

Some companies have even used the generational change as a chance to completely revamp their financial plans so that they line up with environmental objectives (Arinze, 2022). *"When I took over, we completely revamped our budget. We allocated a significant portion to sustainability projects, knowing that it would impact our short-term profits but would make us more competitive in the long term,"* said a second-generation owner of a family-run chemical company in Egypt (FB12). This proactive approach shows how generational changes might lead to transformative changes in both business operations and financial planning.

Several interviews revealed that the younger generation's experience with contemporary financial tools was a major determinant of financing for projects aimed at climate adaptation. *"My father did not know how to access green financing or work with international investors who prioritize sustainability,"* said an interviewee from a second-generation forestry company in Gabon (FB13). *"But I've been able to secure funding for our reforestation projects because I understand how these financial mechanisms work."* This emphasizes the part financial

literacy and familiarity with new funding sources play in advancing climate adaptation strategies inside family businesses.

Although the financial advantages of intergenerational leadership in climate adaptation are not always instantaneous, numerous respondents pointed out that the younger generation's willingness to accept financial risks has produced long-term rewards. *"We've started to see the benefits of the investments my brother and I made in sustainability. Our operating costs are lower, and we're attracting a new kind of customer who values eco-friendly businesses. This was not something our parents would have done, but it's paying off now,"* said a second-generation owner of a hospitality company in Tunisia (FB22).

In the end, the interviews imply that intergenerational dynamics greatly affect the financial decision-making in climate adaptation. While younger family members frequently advocate for more significant investments in climate resilience, realizing the long-term financial gains, older generations may be more wary and focused on short-term profitability. As younger generations assume leadership roles in family businesses, this forward-looking financial approach is becoming more common as an interviewee from a third-generation logistics company in Côte d'Ivoire (FB24) observed: *"We're making these investments not just for us, but for the future of the business. It's a financial risk, but it's a risk we have to take."*

In essence, the financial decisions made in family companies on climate adaptation are closely entwined with changes in intergenerational leadership. While older generations might be more focused on maintaining short-term advantages, younger generations are more inclined to give long-term financial rewards connected with climate resilience top priority. Many family companies are effectively managing these challenges and using financially driven climate adaptation solutions that guarantee both environmental and economic sustainability, nevertheless, by open communication and a clear showing of financial advantages.

4.3. Cooperation, Financial Cooperation, and Resource Availability for Resilience Building

Particularly with regard to financial relationships and resource access, African family companies' resilience to climate change is built in great part by collaboration with outside stakeholders (Burton & Otte, 2022). Working with governments, non-governmental organizations (NGRs), and financial institutions to help their climate adaptation initiatives was underlined by several respondents as being very important. *"We realized early on that we couldn't make the transition to solar energy alone. Partnering with international organizations helped us secure the funding and expertise we needed to get started,"* said an owner of a first-generation renewable energy company in Tunisia (FB08), stressing the critical need of cooperation in overcoming financial and technical constraints to sustainability.

For several family companies, funding climate adaptation projects depended critically on government help. While government incentives for sustainability exist, some interviewers noted that negotiating the bureaucracy to get these monies may be difficult. *"We received some grants for our sustainability projects, but it took a lot of time and effort to get through the red tape. If we hadn't had outside help from a local NGO guiding us, we might have given up,"* said a co-founder of a second-generation technology services company in Morocco (FB09), stressing the need for businesses working not only with financial partners but also with local organizations that can help them negotiate the challenging procedures of securing governmental support. Cooperation goes beyond just financial alliances; technical knowledge from outside partners is often as vital.

Many family companies trying to use resilience techniques have also found great importance in obtaining foreign capital. *"We knew we needed to launch a green building project,"* said an interviewee from a second-generation construction company in Senegal (FB14), *"but the cost was too high for us alone. Partnering with a European investment fund gave us the capital we needed. It was a financial risk, but now we're seeing the benefits, both*

financially and environmentally." This case highlights the role of international partnerships in enabling businesses to access bigger pools of funding for climate-related investments.

Working with local cooperatives has been a key tactic for smaller family companies trying to control financial limits and reduce climate hazards. *"We don't have the resources that larger companies do, but by working with a local farming cooperative, we've been able to share the costs of new water-saving technologies. It's allowed us to reduce costs while still implementing sustainable practices,"* said a first-generation agricultural export company in Gabon (FB11), *"which shows how local collaborations can provide smaller businesses the means to build resilience without bearing the full financial burden."*

Sometimes, family firms have developed strategic relationships with rivals to cooperatively address environmental concerns. *"We joined forces with other small hotels in the region to create a shared sustainability plan. Individually, we couldn't afford the investments needed to reduce our carbon footprint, but together, we've been able to implement energy-efficient systems and reduce costs,"* said a second-generation owner of a family-run hospitality business in Morocco (FB22). This example shows how even competitors can cooperate when faced with shared environmental and financial challenges.

Many companies have had great success acquiring loans or grants especially intended for sustainability initiatives by working with financial institutions. *"We wouldn't have been able to replace our entire fleet with fuel-efficient trucks without the special loan we received. The bank offered lower interest rates because the project was focused on reducing emissions,"* said an interviewee from a third-generation logistics company in Egypt (FB06), reflecting the growing willingness of financial institutions to support businesses in their climate adaptation efforts by favorable loan terms or grants.

Apart from financial institutions, other companies have teamed with NGOs providing technical expertise and financial backing for environmental initiatives. *"We worked with an international NGO that focuses on sustainable fashion. They helped us access funding and also provided training on how to make our production process more environmentally friendly. It's been a game changer for us, both financially and in terms of our environmental impact,"* said a co-founder of a family-owned fashion design company in Tunisia (FB27).

The role industry-specific partnerships play in fostering resilience was also a recurrent motif. *"We've partnered with other chemical companies in the region to share knowledge about decreasing emissions and waste. This collaboration has helped all of us save on costs, especially in terms of meeting regulatory requirements. It's a financial win for everyone involved,"* said a director of a second-generation chemical company in Senegal (FB21).

In certain areas, financing for resilience initiatives has come mostly from collaborations with international assistance organizations. *"Without their support, we wouldn't have been able to afford the irrigation technology we needed to deal with unpredictable rainfall. It was a big financial commitment, but the aid agency helped cover a significant portion of the costs,"* an interviewee from a second-generation agribusiness in Côte d'Ivoire (FB15) said of how they worked with a European aid agency to secure financing for irrigation systems.

To support their resilience initiatives, family companies are also progressively looking to public-private alliances. *"The government provided us with tax incentives and grants to improve our energy efficiency. It's been a great example of how public and private sectors can work together to achieve sustainability goals while keeping costs manageable,"* the third-generation food processing company's interviewee from Gabon (FB24) said. In essence, African family companies trying to create resilience against climate change depend on cooperation and financial alliances. Whether by means of government incentives, NGO partnerships, or corporate alliances, these joint efforts provide the technical knowledge and financial means required to apply sustainable practices. As an interviewee from a family-owned renewable energy company in Tunisia (FB08), *"Without these partnerships, we would not be able to make the investments we've made in sustainability. It's not just about going*

green; it's about ensuring the long-term financial health of the business." As climate risks continue to grow, collaboration will remain a key strategy for family businesses to manage both environmental and financial challenges (Ngugi, 2013).

4.4. Discussion of Findings

Emphasizing especially the financial consequences of these measures, this research investigated how family businesses in Africa are creating resilience strategies in response to climate change. By means of theme analysis of 33 semi-structured interviews, many important conclusions surfaced that underline the particular difficulties and possibilities family companies have in negotiating the junction of environmental sustainability and financial success.

The study reveals, among other things, the variety in how family companies view climate change hazards. While some companies—especially those with thinner financial margins—see climate adaptation as a long-term issue, others see it as an urgent need motivated by direct financial concerns. The industries the companies engage in mostly determine this variance. For example, businesses in energy-intensive industries, tourism, and agriculture revealed the greatest urgent need for adaptation because of their great exposure to environmental hazards. These companies are driven not just by environmental issues but also by financial survival, as failure to adapt may cause major operational interruptions. This result conforms with other studies emphasizing the direct influence of climate change on industries directly related to natural resources (Kaesehage et al., 2019; Nyberg et al., 2022).

Still, the financial approach to climate adaptation differs greatly depending on generation. The interviews revealed a strong age gap: younger family members see climate adaptation methods as long-term investments essential for the sustainability of the company and are typically more active in promoting them. Older generations, on the other hand, who are frequently more preoccupied with preserving short-term profitability, generally have more conservative and wary attitude about the financial hazards connected with climate investments. This generational dynamic emphasizes the need of intergenerational communication and cooperation in forming the future plans of family enterprises. Companies that effectively cross generational gaps are more likely to be able to make wise financial choices that strike a mix between financial stability and sustainability requirements (Mwaura et al., 2023).

The essential relevance of outside partnerships in allowing family companies to use resilience methods also surfaced from the data. Many companies, especially smaller ones, lack the means to make autonomous investments in climate adaptation. To get money and technical knowledge, they have progressively turned to collaborations with NGOs, financial institutions, and government agencies. These partnerships not only provide necessary financial assistance but also let companies negotiate the challenging technical and legal terrain connected with sustainability projects. For instance, some respondents underlined the role financial institutions play in providing advantageous financing for environmental initiatives, while others underlined the need of public-private partnerships in lowering the financial load of using green technology.

The interviews reveal a noteworthy result: companies which include climate resilience measures into their financial planning are more likely to have long-term good financial results. Although the first expenses of implementing sustainable practices might be significant, several respondents said that these expenditures produced operational efficiency, financial savings, and better access to funds (Mwaura et al., 2023). For companies that have adopted ESG criteria, they have not only improved their sustainability credentials but also made them more appealing to investors looking for socially conscious investments. These results imply that companies which use a proactive strategy to climate adaptation and include sustainability into their financial plans may have advantages on the environment as well as money.

The financial consequences of climate resilience plans are complex and vary based on the size and industry of the family company. Larger family companies often have greater resources and financing access, which facilitates their long-term climate adaptation strategy investment process. Smaller companies, on the other hand, are more dependent on outside financing and alliances and may deal with more major financial obstacles. Still, the general trend points to companies that are ready to bear the financial risks connected with climate adaptation more likely to ensure their long-term viability and profitability (Rodríguez et al., 2021).

Finally, the study emphasizes the crucial relevance of financial factors in forming the strategies of climate resilience for African family companies (Aharanwa, 2021). Companies which effectively reconcile long-term sustainability aims with short-term financial demands are more likely to flourish in the face of climate-related difficulties. Moreover, the effectiveness of family companies' climate adaptation initiatives is much influenced by their intergenerational dynamics as well as their capacity to create strategic alliances with outside partners.

5. Conclusion

This research sought to investigate how African family companies create resilience plans to handle climate change while keeping their financial viability. By means of an in-depth qualitative study comprising 33 semi-structured interviews, we investigated the ways in which these companies view climate risks, the financial decision-making procedures they follow, the function of intergenerational leadership, and the need of outside cooperation in improving their resilience. Understanding the complicated linkages between sustainability and financial success within the particular setting of African family companies was the main goal.

This study's theoretical value resides in its emphasis on the junction of family business dynamics and climate resilience, an area of underexamined in past work. This paper offers a better knowledge of the function of intergenerational leadership in promoting both environmental and financial strategies by analyzing how family firms, with their multi-generational leadership structures, negotiate the difficulties of climate adaptation. Furthermore, the results underline the need of integrating ESG standards into family company operations, thereby providing fresh perspectives on how ESG acceptance could improve resilience against environmental hazards as well as financial success.

Methodologically speaking, this study makes a major addition with its qualitative approach—focusing on semi-structured interviews with family business executives from several industries in Africa. Using theme content analysis, we were able to expose the conflicts and synergies between older and younger family members in forming climate adaptation plans, therefore capturing the complex viewpoints of many generations within family enterprises. Moreover, the study emphasizes the need of qualitative research in revealing intricate decision-making processes often not completely reflected by quantitative approaches.

For family companies in sectors such as manufacturing, tourism, and agriculture that are susceptible to climate change, this study's practical ramifications especially hold relevance. The study underlines the need of juggling long-term sustainability goals with short-term financial aims and offers family company executives practical advice on how to include climate resilience into their financial plans. The report provides useful advice for family companies trying to improve their resilience while keeping financial viability by highlighting effective instances of cooperation with outside stakeholders—such as governments, NGOs, and financial institutions. The results also highlight the need to encourage intergenerational communication to guarantee that younger generations, who are frequently more sensitive to environmental problems, can be very important in guiding the long-term resilience plans of the company.

This research has several limitations, notwithstanding its contributions. First, while offering rich qualitative data, the sample size of 33 interviews may not adequately reflect the diversity of experiences found throughout the African continent. Family companies in various sectors or areas might have different issues not fully investigated in this research. Furthermore, depending on qualitative data, results are context-specific and cannot be applicable to every family company. By increasing sample sizes and using quantitative techniques to support the qualitative findings, future studies might address these constraints.

Looking forward, various interesting angles of view for further studies abound. First, especially when younger generations take leadership positions, longitudinal research analyzing the evolution of family business climate resilience measures is much needed. Such research might provide insightful analysis of how long-term sustainability and financial performance of family companies are impacted by generational changes. Future studies might also examine how technological innovation could improve climate resilience, especially in industries like agriculture and manufacturing. At last, broadening the focus of study to include family firms from other areas—such as Asia or Latin America—may help to better grasp the worldwide issues and possibilities confronting family businesses in the age of climate change.

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