

The Role of Trust in AI Adoption among Family Firms

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Abstract: Family firms largely rely on the idea of the adoption of artificial intelligence trust (AI) aiming at developing trust in the technology and their organizational culture, family firms have a higher chance of successfully managing the challenges of AI implementation and increase their performance optimized performance and still maintained their most important values. The family firm culture tends to be dominated by the culture within family firms puts emphasis on people and traditional ways rather than on technological innovation. This resistance to adopting AI solutions can be produced by culture inclination since family members will be afraid becoming out of control or values. The review is a synthesis of the available studies on trust in AI, explaining the ways family firms can use the trust premium inherent to them to support technology adoption. Consequently, family firms' extractive economies are unable to experience sustained value knowledge creation through competitiveness. Enabling environments work within which knowledge creation ensues, leading to the achievement of the development agency goals and the enhancement of the bilateral/unilateral strategic alliance relationship.

Keywords: family firms, family enterprise, Artificial Intelligence AI, management, values, Trust

Introduction

The integration of AI into family firms is unique, particularly as it relates to the role of trust, knowing how this trust affects AI adoption in family businesses will help the firms navigate the complexities of technology without losing their core values and relationships. (Frank, D. A., Jacobsen, L. F., Søndergaard, H. A., & Otterbring, T. 2023). Digital transformation does impact the essence of organizations, persons, ecosystems, and societies at various levels simultaneously (Dąbrowska, et al 2022). AI, which many times shuts the doors of long-lived industries controlled by family businesses (Kammerlander, N., & Ganter, M. 2015), but to the positive side, AI is a great opportunity to remain within the continuous game of family businesses. The role of trust is crucial in the adoption of Artificial Intelligence in family businesses. Family businesses are perceived to be more trustworthy compared to their corporate counterparts. Research indicates that family firms are always on the list of the most trusted institutions, hence placing them favorably when the adoption of new technologies such as AI is in question (Lannon, F., Lyons, R., & O'Connor, C. 2024).

Although AI technologies have evolved greatly in recent years the rate of technology adoption has not caught up to enhancements (Ransbotham et al., 2017)(Sawang, S., & Kivits, R. A. 2024). According to a recent report from IBM (2022) ~35% of the firms globally have implemented AI technology in their operations. Trust is a critical factor in the adoption of AI technologies, especially in family firms where decision-making is often influenced by familial relationships and values (Tuncalp, D. 2024). In family firms, this dynamic can be even more pronounced due to the close-knit nature of family relationships and the emphasis on long-term commitments (Frank, D. A., Jacobsen, L. F., Søndergaard, H. A., & Otterbring, T. 2023). The growing body of literature exploring new technology adoption and trust establishment within family firms has existed for some time. The contributions principally assess when and how

family firms adopt new technologies, developing in a new technology, namely the AI adoption in family-owned businesses. This study contributes to the literature on technology adoption by family firms in relation to the trust factor as it sheds light on family firms' experience regarding AI adoption. The study aims to examine the dimensions of trust in AI within family firms and the dimensions of AI's impact on family firms. By investigating the multifaceted effects of AI on family firms, this research aims to provide valuable insights, uncover AI's potential, and offer recommendations for family firms in this digital era. This study employs technological trust, social trust, succession planning, and family governance.

Literature review:

The world is experiencing another historic transition that is different from the other and happening in technology (Alfeir, N. M. 2024). The invention of artificial intelligence has changed the face of life in every sense and brought changes in the rank and file of businesses to family levels (Xiao, H., Wang, Z., Tian, W., Liu, X., Liu, W., Jin, S., et al. 2021). In the world, two-thirds are family firms. So, for those family firms, take up to become the key to acquiring, assimilating, transforming, and exploiting new, external knowledge for purposes of value creation (Pütz, L., & Werner, A., 2024). Family firms are characterized by the unity of ownership and management (Chua et al. 1999) which is based on the specific characteristics of the company regarding its values, attitudes, and intentions of the family (Chrisman et al. 2012), family vision, and involvement (Chua et al. 2012), and actions and resources shaped by the family members to achieve family-centered goals. AI provides a large array of benefits for SMEs, and in particular for family businesses. It brings more efficiency and productivity by automatically removing repetitive jobs, such as data entry, billing, and stock management (Upadhyay et al., 2023). Trust in the family business (level or degree) Trust should not be stored as two ordered states: yes and no on the degree of trust matrix between people of interest. One trusts another to varying degrees of intensity and for different reasons. (Shapiro, Sheppard and Cheraskin 1992) define trust in three types: deterrence, knowledge-based and identification.

The literature reviews focus on specific aspects of the topic and leave gaps in our overall enhancement of the knowledge structure of research on trust on AI in family firms, it focuses on the challenges of access for family firms into AI, while reviews focus on the dimensions of trust and AI adoption by family firms. Synthesis of literature in the area of family firms with regard to trust AI, because new technologies come up daily, and reviews seem to fragment with the fact that family firms are a bit slow with regard to the adoption of AI.

Methodology:

The paper is based on the systematic literature review (SLR) method to summarize the current knowledge related to the presence of trust in the field of the adoption of artificial intelligence (AI) in family companies. A SLR was considered to be suitable since the area of research at the intersection of family business research and AI trust is comparatively new and incoherent and requires a rigorously and reproducibly conducted synthesis in order to single out the key themes, gaps, and future research areas.

The literature search was performed on Scopus (Elsevier) and EBSCOhost (Business Source Complete and Academic Search Complete) databases as they were selected due to the wide coverage of peer-reviewed journals and overlaps in the high-impact publications. Systematic Boolean search plan was used in both platforms with a mix of different terminologies reflecting four central concepts: family businesses (e.g., family firm* and family enterprise*), artificial intelligence including such terms as machine learning, and generative AI, different dimensions of trust (technological, social, and interpersonal), and actions of adoption (e.g., adopt, and integrat). In order to balance the accuracy and sufficient recall, this search query was narrowed down to the title and abstract as well as the keyword within the respective database records, which reduced our final sample to 82 documents.

The study area and the high rates of conceptual research, a theoretical and not statistical synthesis had been carried out, and the themes were defined through both the deductive utilization of the existing frameworks of trust and the inductive process of finding emerging patterns within the family firm AI nexus. This stringent method of synthesis, which was designed and developed on the basis of the systematic search of databases in Scopus and EBSCOhost, clear inclusion criteria, and a repeatable protocol, provides a solid and reproducible base of the detailed thematic analysis that is provided in the further parts of the current paper.

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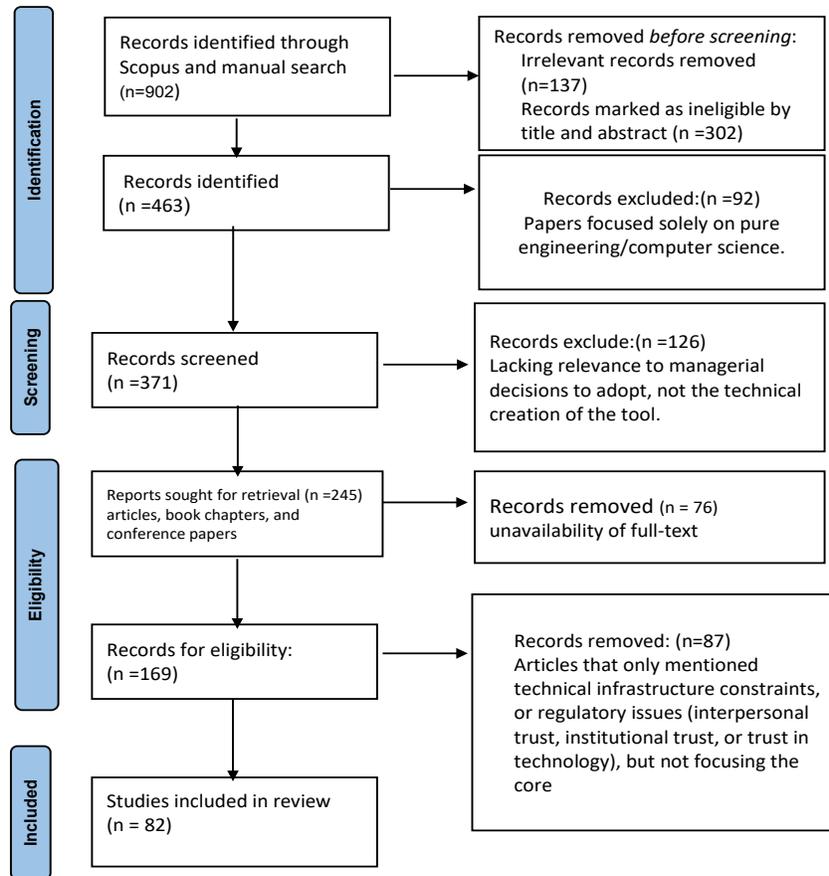


Fig. 1: Prisma Framework

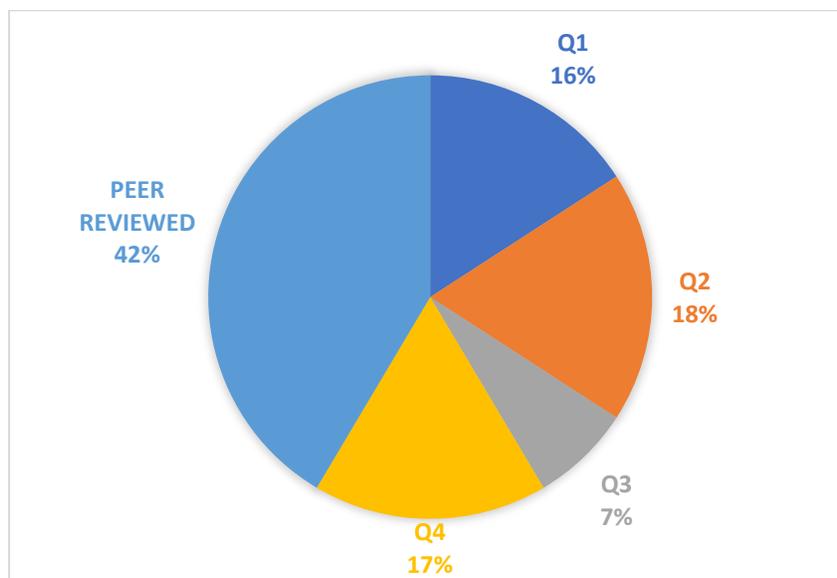


Fig 2: Scopus and peer-reviewed journals rating in %

The pie chart is used as a graphical representation of quality distribution of the articles incorporated in the systematic literature review (SLR) on the topic of trust and AI adoption in family firms.

The largest section (42) is the section named as the Peer Reviewed, which shows that approximately half of the chosen articles were published in the reputable peer review journals. This is an emphasis on the concept of methodological rigor and academic reliability of the synthesis.

The segments of Q1-Q4 cover those articles in journals ranked by research databases (including Scopus) based on their impact and scientific quality with Q1 being the highest. The equal distribution of Q1 (16%), Q2 (18%), Q3 (7%), and Q4 (17) show that influential and diverse sources have been included, including the sources of the highest quality and more general scholarly sources.

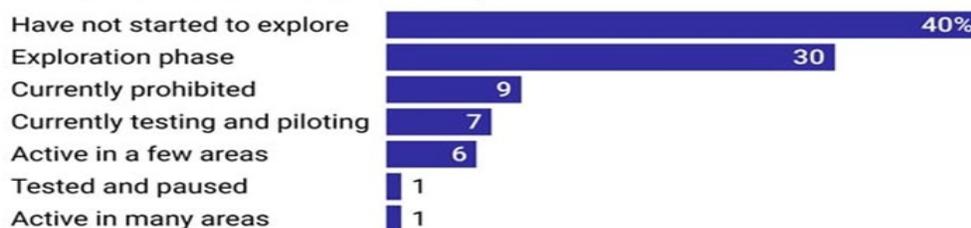
Contextually, the chart shows the systematic method of ensuring high impact and credible literature coverage. The integration of articles in peer-reviewed journals and journals of different quartile ranks will ensure that the SLR is both in depth and in breadth, decreasing bias and increasing the confidence of its thematic findings on trust and the adoption of aiding AI in family firms.

Navigating the Slow Adoption of AI In Family Firms:

Family businesses are typically slower to embrace Artificial Intelligence compared to other business types. Several interrelated factors contribute to this phenomenon. Family firms often prefer tradition and established ways of doing things over new technologies. Many family business leaders consider technology, such as AI, a disruption to their operations rather than an improvement. Family businesses are highly attached to their heritage and reputation. Therefore, they are hesitant to adopt technologies that would change their traditional business models. Leaders might fear that AI adoption could alienate long-standing customers or disrupt the familial culture that defines their operations (Lannon, F., Lyons, R., & O'Connor, C. 2024). (Worek, M., & Aaltonen, P. 2025). People tend to misunderstand AI and all the advantages it can have to the family company. Many leaders will not fully realize how AI can be integrated into their business operations and what competitive benefits it may provide, which will result in the lack of motivation to embrace the technology. Such culture may result in the emergence of resistance to using AI solutions because family members will be afraid of losing control or values. The review also summarizes the available literature on the trust in AI, and it has indicated how family firms can exploit their existing trust premium to make it easier to adopt technology.

Family businesses have been slow to adopt AI

Only 7% of family firms are actively using AI, while 40% have not started to explore the technology.



Note: Survey conducted of 900 business leaders in their early 40s or younger in 63 territories from November 13, 2023, to January 23, 2024.

Data source: PwC

Fig. 3: The Slow Adoption of AI in Family Firms (website)

Source: website

Trust in Technology Vs. Trust in Relationship

This is one of the differences between the faith in the technology itself and the faith in the relationship in the family firms. It is possible that family firms having the reputation based on trust will not readily adopt AI due to fear. Their reputation will be damaged by the breakdown of the technology. Conversely, they will be able to incorporate AI, and share the values of the firm and engage the family members in the process of the decision-making, they will build internal and external trust, which would facilitate the changeover. Various research studies suggest that several factors

affect trust in technology, which include data quality, algorithmic transparency, and the perceived competence of the AI system (Asan, O., Bayrak, A. E., & Choudhury, A. 2020). In family firms, this trust can become complex because of apprehensions regarding the risks the technology may pose and its suitability for the values in the family (Maier, T., Menold, J., & McComb, C. 2022). Once trust is established, family firms can unlock a lot of benefits. A trusting culture leads to Efficient operations, which AI helps in automating operations, therefore reducing costs, increasing productivity, and improving innovation. families with confidence in AI are likely to explore more ideas and solutions for their companies and hence remain competitive. Trust in family businesses refers to trusting other people's intentions and actions. When it comes to technologies like AI, trust encompasses belief in the technology and in those implementing it. Because family firms operate on close relationships, trust becomes even more essential. This includes the social trust between the family members and between the company and its stakeholders like the customers and the employees. Generally, family businesses tend to have more trust because they are known over long periods and practice ethical behaviors. However, generational change within these firms tends to increase conflicts, especially where younger members of the family call for embracing technology. A large share of NextGen family members report that lack of trust cuts across generations for AI adoption (pwc-nextgen-survey-2024) website 23. The relationship between trust in technology and trust in relationships is complex. High levels of interpersonal trust can facilitate a smoother adoption process for AI technologies. When family members believe in each other's intentions and capabilities, they are more likely to support investments in new technologies. Conversely, skepticism regarding the reliability of the technology or its congruence with family values can impede adoption efforts (Frank, D. A., Jacobsen, L. F., Søndergaard, H. A., & Otterbring, T. 2023). The success of AI in family businesses depends on their ability to foster trust. Those who prioritize relationships will be best suited to do well in a world where the landscape is continuously changing. Innovation hinges on trust. Businesses owned by the family that trusts AI are in the process of examining the new methods. Such an innovative mindset might make the firm stand out, thus the way is forward for its sustained development, which requires it.

Multi-faceted Considerations in Family Firms

The incorporation of a multi-faceted undertaking arrangement into family firms is of the essence when dealing with family dynamics and business operations complexities. It can succeed by focusing on the best succession planning, developing governance such as Family Constitutions and work groups, and providing a clear management structure in the business.

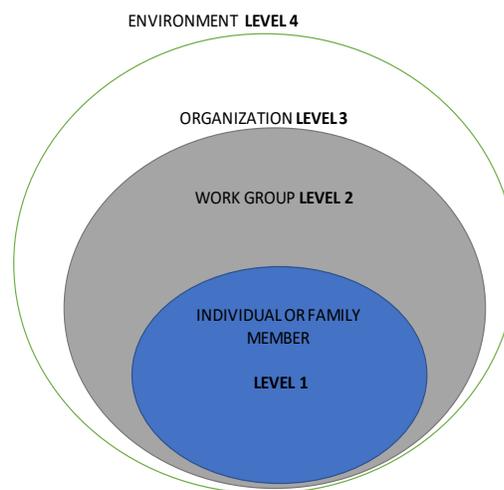


Fig. 4: Multi-Faceted Undertaking Arrangement in Family Firms

Source: Author

Environment

The context of the family firms has complicated the AI by growth prospects and the challenges that are inherent and inside the family tradition and resource limitation. Nonetheless, family businesses may become more competitive and sustainable in the future, with the growing level of digitization, by adopting AI in a strategic approach and retaining their values. Implementing AI in a prudent manner would consider intergenerational perspectives, cultural dynamics,

and the uniqueness of family enterprises. The below figure shows the tacit knowledge transformation strategy process in family firms. Adopting the Digitization Strategy Model enables family businesses to overcome the pitfalls associated with digital transformation and exploit more opportunities for better growth towards securing a prosperous future for the generations ahead (Sawang, S., & Kivits, R. A. 2024). It is very important that all generations be involved in the decision-making process of when to adopt AI. Involving all generations helps build consensus, addresses fears, and ensures that the AI is adopted in such a way that benefits the whole family business (Bouncken, R., & Schmitt, F. 2022).

Organization

Considering the organizational culture, the existence of leadership support, as well as the more tangible factors such as finances, human resources and technology, are very important. Most likely, innovation and healthy attitude towards new technologies will create higher trust (Upadhyay, N., et al.,2023). The lack of resources, and poorly developed infrastructure may serve as a barrier to AI adoption in organizations (Kumar, D., & Ratten, V. 2024). AI brings to the table many benefits for SMEs and, particularly, family businesses, enhancing efficiency and productivity in automating such repetitive tasks as data entry, invoicing, and inventory management (Sawang, S., & Kivits, R. A. 2024).

Workgroup

The family is a group consisting of individuals who influence the family's structure, history, culture, and dynamics. That is, individuals are a source from which family-level phenomena emerge (and vice versa). More than that, because the family is basic to the family firm, the family is the bottom line from where firm-level (Daspit, J. J., Madison, K., Nordqvist, M., & Sieger, P. 2024). Family firms function in a multifaceted environment that influences how they will manage their workforce. By addressing recruitment issues, increasing retention efforts, motivating employees properly, controlling interpersonal relationship management, and adjusting to changes between generations, these companies move to create the ideal workplace (Ulrich, P., Frank, V., & Buettner, R. 2023). Strategic HR practices such as complimenting their benefits can help family businesses focus on staying on the comfortable side of workforce management development. By improving inclusivity, open communication, and good development opportunities, the family firms will be guaranteed of a reputable position in the competitive experience as perceived employers.

Individual family member

The contribution of individual family members to the performance of the business is very significant and it has been affected by the leadership styles, emotional commitment and the other interpersonal dynamics. Familial ties can be an enabler of collaboration and drive success, but they can also pose challenges that need careful management (DMello, S. (2024). The personal beliefs, experiences, and risk tolerance of the family members in the decision-making process will have an influence on the levels of trust. Prior experiences with technology and perceived risks of AI impact adoption decisions (Frank, B., Shimoura, K., & Hu, Y 2023), implying that a similar effect may occur with AI adoption within family firms.

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Dimensions of AI in Family Firms:

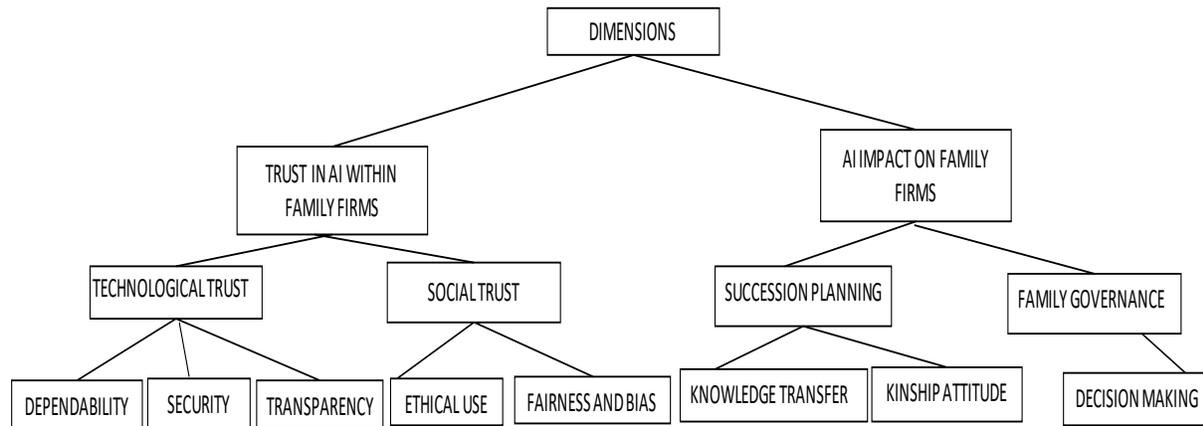


Fig. 5: Dimensions of trust in AI within family firms and AI impact on family firms

Source: Authour

Dimensions of trust in AI within family firms:

Trust in AI systems is dependent on the notion that these systems will act in the best interest of the family firm. Family businesses must ensure that AI technologies align with their values and long-term objectives.

A primary attribute in the adoption of AI technologies is trust, especially for firms that are family-owned. These businesses focus on building long-term relationships, reputation, and legacy, which impacts how they adopt AI in their business functions. The reliability and predictability of the AI systems in terms of decision-making is known as dependability in AI. The family businesses tend to have long-term relations and stability and are thus conservative when it comes to implementing new technologies including AI. Ownership can be established by involving family members in the process of deciding on the adoption of AI to reduce resistance. Various generations the family members represent a variety of opinions and establish the consensus in the benefits of AI (Tuncalp, D. 2024). The reason for this caution is a fear of losing their reputation if the implementation of AI fails or results in biased outcomes (Kaplan, A. D., Kessler, T. T., Brill, J. C., & Hancock, P. A. 2023). Building technological trust in family firms toward AI is contingent upon dependability, transparency, and accountability as significant issues at play when handling concerns about user education, ethical implications, and resource allocation. The strategic management of these dimensions allows family businesses to successfully integrate AI into their operations with little loss to their core values and stakeholder trust (DMello, S. 2024). AI provides a large array of benefits for SMEs, and in particular for family businesses. It brings more efficiency and productivity by automatically removing repetitive jobs, such as data entry, billing, and stock management (Upadhyay et al., 2023). Family firms handle the most sensitive information ranging from financial records, estate plans, and personal preferences. The use of AI systems raises significant privacy concerns because to be effective, AI systems require broad access to large amounts of data. In such cases where information is public AI models, there can be the risk of exposure or misuse of information, leading to possible breaches of confidentiality. Therefore, such family firms ought to thoroughly research the security-related features and existing privacy policies behind AI tools for implementation (Hanna R Dameron, Tracy L McLaughlin, Kevin Matz, 2024). Transparency is considered a critical aspect of developing trust within AI systems. It refers to open communication about how AI works, data, and the rationale for its decisions. Research shows that while transparency is more likely to promote trust, it can have unintended consequences when poorly managed. (Schmidt, P., Biessmann, F., & Teubner, T. 2020). While family businesses have different challenges of innovation over tradition, taking into account other challenges faced as openness needed with AI such as biases and what the decisions made through automation mean for all the stakeholders. Investigating these companies' AI capabilities means holding one another accountable for value-based considerations so they do not risk the customers' and employees' trust in them (Kumar, D., & Ratten, V. 2024).

Social trust within family firms in the context of family firms and AI refers to the relationship and perceptions that stakeholders such as family members, employees, and the wider community tend to have regarding the ethical use and

responsible use of AI technologies. This dimension is of prime significance as it significantly determines the manner in which family businesses integrate AI into their businesses while ensuring adherence to their core values and social responsibilities. (Tuncalp, D. 2024). A candid discussion of the functionality of AI technologies and what advantages they introduce in building social trust. Engaging the stakeholders in debates over the implementation of AI can help to relieve the fear and eliminate the misconceptions. In line with results, it has been demonstrated that the incorporation of multiple generations of a family in the processes of making decisions may aid the rising proportion of their acceptance towards the adoption of new technologies (Ulrich, P., Frank, V., and Buettner, R. 2023).

Family offices that cater to managing the wealth of wealthy families have to consider the ethical consideration of incorporating AI in its strategies. They should balance the technological developments and fiduciary responsibilities and ensure that human factor is the most important in the development process. (Lannon, F., Lyons, R., & O'Connor, C. 2024). Family firms are to motivate the staff members, clients and the community to provide their worries and anticipations regarding AI technologies. Moral application of AI by the family businesses builds a feeling of trust in all the stakeholders: the employees, the clients, and the society. The high standards of fairness, accountability and transparency in the AI applications of a family firm enhance its reputation to be credible.

A tightened governance structure can serve as the means to make family firms aware of the bias in AI solutions through regular audits, diverse teams, appropriate data handling, equitable algorithm design, and lifelong learning will all aid the process (Ferrara, E. 2023). In essence, prioritizing these approaches, the family businesses would have the ability to elevate their image of responsible innovators, whereas their AI systems would work fairly and with integrity. It represents them, and therefore increases their confidence among stakeholders

Dimensions of AI impact on family firms

Another important field of family business is succession planning, where AI is quite handy because it can access historical data and trends and forecast new ones that potentially increase risks and opportunities that could be exploited by the family in making a strategic choice of leadership in the future. A notable trend in future AI studies is emotional intelligence: the ability to detect, express, and react to the emotions of a person (Monteith et al., 2022). The generational change implies that the family businesses have to balance innovation and caution. This provides the atmosphere in which the trust is formed through open communication and AI responsible practice. Family firms have an asset of knowledge that is most often considered to be the source of their competitive advantage. Creative transfer of knowledge provides these companies with an opportunity to create, adjust, and preserve their intergenerational legacies. It is also common to link family firms with a significant body of tacit knowledge skills and knowledge acquired out of experience that is needed in their daily work (Karpad, Z. S., and Szul, B. 2025). The passing of knowledge to the next generations is critical in ensuring continuity and perpetuation of values and culture of family businesses. AI can also help encode explicit knowledge and serve as an aid during the training of the successors (Tuncalp, D. 2024). The family attitude offers a significant impact on the view and implementation of artificial intelligence (AI) in a family company. Under this dimension, emotional bonds, values, and experiences are present and develop due to family relationships and may influence the decision-making process concerning technology adoption when working with family firms inevitably (Ferrara, E. 2023). Family firms tend to be based on a high level of emotional attachment in family members to emerge as a strong trust. This kinship can lead to the easier communication process and co-operation inside the firm but, at the same time, it can also cause opposition to innovation among the external parties as the AI use can be viewed as something that challenges the practices or values deeply tied to the family (Lannon, F., Lyons, R., and O'Connor, C. 2024). the good governance frameworks should promote the use of AI, and it should be ensured that not only the systems are effective but also correspond to the ethical standards and the values that the family is firmly rooted in. The problem of data privacy and transparency can be resolved by implementing powerful governance structures to ensure ethical issues surrounding AI are resolved. Family firms can establish trust and decrease the mistrust toward AI by making sure that these projects are regulated by specific ethical standards to avoid suspicion on the matter (Sawang, S., and Kivits, R. A. 2024). AI might have a significant role to contribute to the decision-making process of the family business. Conflict resolution will be one of the key spheres to which AI will be supportive. An objective analysis of data enables the AI to contribute to the decision-making process of the family business, and afterward it would also minimize the chances of conflict among the family members (Sawang, et. al.,2024). The way AI could be utilized in the management of family businesses is also a possible topic of discussion. The use of AI might help in decision-making, conflict resolution and strategic planning thereby improving governance overall (Sawang, S., & Kivits, R. A. 2024).

Conceptual Framework of Adoption of AI in Family Firms:

This theoretical framework discusses the adaptive use of Artificial Intelligence (AI) in family businesses by discussing what are known as interconnected pillars: data, data management, decision support artificial intelligence (AI) culture, innovation, systems (DSS). Family firms have yet to be defined by AI, as the business world is still developing it are being summoned to put into balance their traditional operations based on values with the need to demand technological agility. Information strategy enables intuitive innovation and market responsiveness, where data management enables by power is enhanced in terms of operational efficiency and risk avoidance AI. The decision support systems are a tool in informed and collaborative decision making across generations, raising trust and reducing resistance through explanation and being transparent. Placing The cultural DNA of the firm requires AI which requires a shift of attitude towards change accompanied by upholding values that have existed long enough. Lastly, innovation thrives when it is inculcated within the family ethics and fostered by external partnerships and sustained involvement. In combination, these factors provide a holistic framework for sustainable AI uptake, guaranteeing continuity, competitiveness, and intergenerational development in family businesses.

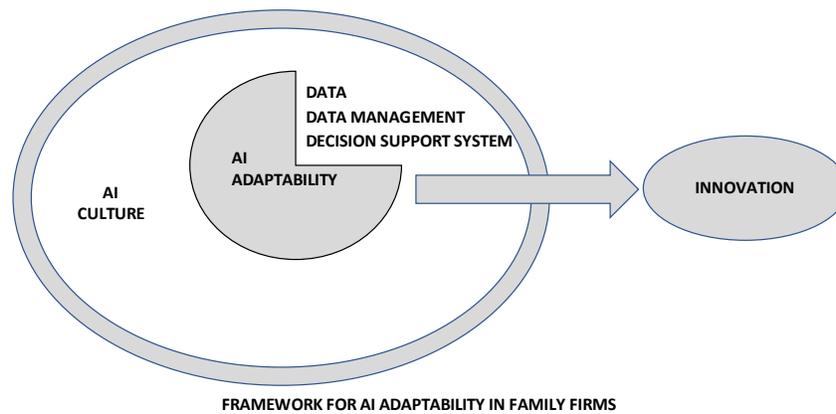


Fig. 6: Conceptual Framework of AI Adoption

Source: Author

To strike a balance between addiction to AI and safety within families, there is a need for a reasonable approach that utilizes technology while caring for all the interests of the family. The survey showcases a generational gap in opinions regarding AI as perceived by family firms. NextGen leaders and leaders aged 18 to early 40s show a positive perception of AI; about 73% of them believe in generative AI that could transform and innovate business work³. However, their elders express more concerns, primarily based on cybersecurity issues and biases in decision-making (PwC NextGen Survey 2024). Here is a list of strategies families can implement. Data plays the most significant role in driving innovations by finding hitherto concealed patterns and rising trends. The insights gained through analysis of data would help the or family firms to create new opportunities related to new products or enhancing a service. Through this continuous cycle of innovation, businesses will become agile and keep pace with demands in the marketplace (Sawang, S., & Kivits, R. A. 2024). Data is not just a resource, it is the catalyst for success in the digital age. Businesses that effectively harness the power of data are better positioned to navigate complexities, drive innovation, enhance customer experiences, optimize operations, and mitigate risks. As organizations continue to evolve digitally, the strategic use of data will remain central to their success. The areas in data management that should seek to use AI are how the family businesses can best exploit the operations and strategic decisions by improving these aspects of business using AI integration into the process. Family members will have time for strategic growth because routine compliance reporting and document management are automated by AI (Lannon, F., Lyons, R., & O'Connor, C. 2024). Efficiency, quality of decision-making, and security can significantly be enhanced in family firms through data management, particularly in such a complex business environment (Upadhyay, N., et al.,2023). AI-driven entity resolution has enhanced data management in family offices by ensuring that each record referring to the same legal or natural entity is systematically identified and consolidated from various sources of data.

Family business culture is inclined towards human relationships and age-old traditions above technological innovation. Such orientation may serve to create resistance to adopting AI tools as family members may fear losing out on control or compromising values. Family firms need to have trust towards AI systems in which to adopt this

technology. Research has established that perceived ease of use and explainability of AI-DSS will lead to increased user trust, which will decrease uncertainty and enable adoption (DMello, S. 2024).

Long-term relationships are often valued within family businesses, which create stability, and thus, in integrating AI, a cultural shift is needed in these organizations to enable embracing technology while maintaining core speaking values (Budhwar, P., et al.,2023). The balance between innovative processing and being grounded on core values to be achieved (DMello, S. 2024). By improving operations, enabling better decision-making, personalizing experience, developing products, cutting costs, tackling risks better, and instilling a culture of adaptability, equips the family business with enormous opportunities for innovation (Sawang, S., & Kivits, R. A. 2024). Family-owned businesses to successfully use innovation, they must adopt the best practices of aligning innovation with family values, Culture of Innovation, and Leveraging External Partnerships while family firms themselves are forging innovation (Gil, M., Thor, K., & Gemheden, A. 2024). The long-term orientation of family firms, emotional attachment, agility, and intergenerationally the benefits they confer do indeed confer a sizable benefit. With proper inclusions of best practices and addressing hindrances to movement in that direction, family business innovation is a definite possibility leading to successful paths of expansion and survival in the austere environment of competition. family businesses are viewed as those whose long-term benefits are well worth the initial sacrifices made for the sake of research and other innovations (Frank, H., et al.,2019). This standpoint allows them to consider new ideas and concepts for the benefit of the coming generation

Conclusion

A family business needs to trust the AI technology systems first for it to be able to adopt the different AI technologies. This means that different levels of trust which extend to the adoption of the technology, AI provider, internal skills, and external stakeholders, as well as the adoption in itself, are put into consideration. Aid determines the level of trust, and consequently, those factors influence adoption. Consideration of the research gaps mentioned here will shed light on policymakers, researchers, and practitioners who would want to foster the adoption of AI in family businesses responsibly. Knowing how to construct and preserve trust with the aid of AI has to be learned in order to avoid failure by reaping the anticipated profits.

This paper shows that trust is the key mediating factor between the firms that have distinctive socio-emotional wealth priorities and their readiness to embrace artificial intelligence in their businesses. The key challenge to successful AI implementation in family firms is not technological but a challenge of trust building. When family businesses consciously utilize their existing trust premium (intergenerational credibility, long-term relationship between stakeholders, and reputation as ethical) they can turn possible opposition into competitive advantage. On the other hand, even the most advanced AI solutions are not adopted or under-used, irrespective of their objective benefits to performance, when technological trust (dependency, transparency, security, fairness) is disregarded or not properly communicated.

The analysis shows that there were four strong conclusions based on the systematic synthesis of high-quality studies:

- 1.The trust in AI is a multidimensional, hierarchical state: technological trust (reliability, transparency, accountability of the system) is a must-have but must-not-be state; it has to be internalized in the context of long-term social trust (family cohesion, stakeholder legitimacy, and ethical alignment) in order to become permanently adopted.
- 2.The non-adoption of AI by family firms is not conservatism but a reasonable risk-reduction approach based on non-financial benefits (socio-emotional wealth preservation). This only can be overcome through conscious interventions in trust-building as opposed to technical or financial reasons only.
- 3.The difference in intergenerational trust perceptions is both an obstacle and an opportunity: NextGen members are much more likely to believe that they are more technologically trustful, and therefore, become natural internal promoters, when governance systems give them legitimate power without disturbing family control.
- 4.Well functioning family governance arrangements (family constitutions, multi-generational councils, ethical AI charters) are institutional trust enhancers, perceived risk is lowered, and safe spaces to experiment exist.

Preventing Internal Researcher Bias and guaranteeing Rigor in Qualitative Synthesis.

Due to the nature of this review, which is qualitative and interpretative, certain steps were taken to reduce cases of confirmation bias, selective citation, and over-interpretation:

Negative case search In this instance, there was an intention to find and incorporate studies that presented failed AI implementations or unrelenting opposition in family firms (Worek and Aaltonen, 2025; Kumar and Ratten, 2024). The weight of these counter examples was considered equal to avoid a biased overly optimistic account.

Triangulation across methodologies: Conclusions get done based on themes that emerged across all empirically based quantitative studies, qualitative case studies, and conceptual works, so that one methodological perspective could not take over.

Reflexivity log: The researchers kept a common reflexivity document during the analysis where they kept preconceptions (e.g., initial assumption that family firms are technophobic per se) and how the evidence compelled them to change or discard their assumptions.

External peer debriefing: The initial findings and the conceptual framework were introduced to three of senior scholarly family business scholars who did not participate in the study; they critiqued and helped to refine excessively bold statements and demarcate better supported and exploratory statements.

Through the integration of systematic transparency in article selection, stringent protocols used on inter-coders and careful inclusion of disconfirming evidence, conclusions made herein represent the underlying literature as accurately and objectively as feasible within the limits of qualitative synthesis.

Practically, family firms aiming to move faster in adopting responsible AI ought to focus on three viable levers, viz. (1) co-production of transparent, auditable AI governance policies involving multi-generational participation; (2) experimenting with low-risk, high- \$ AI uses that directly promote (rather than jeopardize) family values; and (3) institutionalizing continuous trust-checking mechanisms (ethical audit, family council audit, employee/stakeholder feedback loops). Once trust is considered the main resource instead of a by-product, AI is not a threat to the disruption but an effective tool of carrying the family legacy into the digital age and continuing its sustainability further.

Future Directions

There should be gaps to narrow down which would augment the comprehension of trust in the adoption of AI within family enterprises. This also implies the devising of strategies of dealing with trust in AI, which ensures the protection of information, and the development of trust and collaborative environment within family businesses. Further studies would determine the type of technologies such as generative AI and, more importantly, machine learning have an impact on the trust, and what other factors such as the business have innovativeness aspect as suggested in (Upadhyay, N., et al.,2023) must fall between trust and the change readiness to embrace AI technologies. Once again, the effect of AI on can be researched further ethical AI adoption (Budhwar, P., et al.,2023). and research techniques of stakeholder management dangers further still (Wach, K., et al., 2023) And finally, the interaction of trust with the perceived opportunity.

Another question requiring an answer is that of negative or positive employment impacts of AI adoption research focus although numerous studies have been done, the real contribution of trust in the adoption of AI remains family firm not well known between industry differences. More comparative studies must exist across different industries, regions, and family firm types to find what their correlates of trust and AI adoption decision processes look like.

Over an extended period: Studies that examine how trust develops over time and how that development influences the effectiveness of AI in the business over the long term should be conducted.

The viewpoint of different participants: More qualitative work is required to capture the voice and experience of family members, employees, and others who understand trust and the adoption of AI within the family business.

Research claims: More empirical studies have to be carried out to determine the relationship between trust and AI adoption and industry-specific laws, cultural behaviour, and technological infrastructure in particular contexts.

Measuring the extent of trust: It is needed to develop and test instruments that will determine trust in the AI adoption context.

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