International Journal of Advanced and Applied Sciences, 11(6) 2024, Pages: 1-13

Contents lists available at Science-Gate

International Journal of Advanced and Applied Sciences

Journal homepage: http://www.science-gate.com/IJAAS.html

Development of a new concept and definition of inheritance risk management in family businesses toward sustainability

Abdulbasit Lutfy A. Al Obaidy [1], Abdul Razzak Alshehadeh [2], Haneen A. Al-Khawaja [3, 4, 5], Iman Amin Basheti [6, 7], Murad Ali Ahmad Al-Zaqeba [8, *]

[1]*Graduate School of Business, Universiti Sains Malaysia (USM), George Town, Malaysia*
[2]*Faculty of Business, Al-Zaytoonah University of Jordan, Amman, Jordan*
[3]*Department of Financial Technology and Banking, Faculty of Business, Ajloun National University, Ajloun, Jordan*
[4]*Applied Science Research Center, Applied Science Private University, Amman, Jordan*
[5]*Swiss FinTech Innovation Lab, University of Zurich, Zurich, Switzerland*
[6]*Pharmaceutical Sciences Department, Faculty of Pharmacy, Jadara University, Irbid, Jordan*
[7]*Faculty of Medicine and Health, School of Pharmacy, The University of Sydney, NSW, Australia*
[8]*Faculty of Economics and Muamalat (FEM), Universiti Sains Islam Malaysia (USIM), Nilai, Malaysia*

A R T I C L E I N F O

Article history:
Received 31 January 2024
Received in revised form
14 May 2024
Accepted 16 May 2024

Keywords:
Inheritance
Endowment
Financial aspects
Family control
Succession

A B S T R A C T

This paper examines how family businesses manage risks when transferring wealth across generations to ensure sustainability. It develops a thorough framework focusing on maintaining family legacies and business continuity. Key challenges identified include managing control, balancing interests, planning succession, preparing future leaders, and maintaining respect for leadership. The study uses a quantitative method to show that managing risks related to the owner's death is crucial. The findings suggest that managing inheritance risks and achieving successful transitions are vital for the sustainability of family businesses. Inheritance Risk Management (IRM) also helps mediate the impact of legacy risk management on sustainability. The paper recommends creating guidelines, launching awareness campaigns, offering specialized courses, and promoting family governance to improve business performance and social responsibility. Additionally, this research contributes to family business studies by enhancing understanding of inheritance risks and setting the stage for ongoing research and best practices development. These strategies aim to equip family businesses to meet current needs and future challenges effectively.

1. Introduction

In a family business, transferring wealth from one generation to the next is a crucial event that can either strengthen or weaken the family's legacy. Ownership often shifts from the original owner to family members through family guardianship decisions, which can conflict with Islamic law, as there is no will specifying heirs. The founder's intention is for the business to remain sustainable and be passed down through generations, ensuring the preservation of wealth. The interactions between family, business, and wealth create unique challenges, highlighting the need for a new approach to managing inheritance risks. This stems from the principles of risk management and the concept of inherent risk (Bernhard et al., 2020; Song et al., 2022; Baltazar et al., 2023).

The idea of inheritance risk management (IRM) comes from the broader field of risk management, focusing on the key elements of inherent risk. Inherent risk is the main type of risk because it involves factors that internal controls cannot address. Similar to a financial audit, inherent risks are more common in complex situations requiring significant judgment in financial estimates. Family companies, which are some of the largest and most important for national economies, have internal controls that often fail to prevent risks. This highlights the need to manage risks related to inheritance, leading to the development of the innovative concept of IRM (Baltazar et al., 2023).

As family businesses evolve in an era of technological advancement, globalization, and shifting economic and social dynamics, preserving

* Corresponding Author.
Email Address: murad.ali@usim.edu.my (M. A. A. Al-Zaqeba)
https://doi.org/10.21833/ijaas.2024.06.001
Corresponding author's ORCID profile:
https://orcid.org/0000-0003-0746-912X

family wealth requires innovative strategies. The concept of Inheritance Risk Management (IRM) aims to redefine traditional methods of wealth transfer and inheritance planning. It extends beyond conventional financial planning and legal considerations, addressing the complex relationships between family members, the sustainability of their businesses, and the preservation of wealth across generations.

Family businesses adopt a progressive, multifaceted approach that emphasizes success and continuity beyond the financial realm. IRM highlights the strategic, personal, and emotional dimensions crucial to successful inheritance planning. This concept requires a comprehensive strategy that considers the unique aspirations, values, and strengths of each family member, aligning with the long-term goals of the family business and the family constitution (Conz et al., 2023).

Inheritance is fundamentally important to family businesses, yet current models of inheritance planning and wealth transfer often fail to address the complex challenges at the intersection of family dynamics and business sustainability. The evolving global market landscape necessitates a reevaluation of traditional IRM approaches. This paper explores the concept of IRM within the framework of risk management, identifying key gaps to address the multifaceted dimensions of inheritance-related risks, including financial, emotional, and strategic considerations. It delves into the complexities of this transformative concept, showing how it enables families to protect their financial assets while fostering a resilient and harmonious inheritance.

The concept of IRM provides insights that guide families and their advisors in navigating the complexities of inheritance within the ever-changing business landscape. It aims to align the needs and aspirations of all family members with the emerging constitution of the company, ensuring a sustainable and prosperous future for the family business.

2. Literature review

Family businesses play a significant role in the economic growth and development of the region (Jamali and El Safadi, 2019; Yuan, 2019). However, their sustainability is often threatened by various challenges, including inheritance risk. This risk arises from the transfer of ownership and control of the business from one generation to the next. For example, Yuan (2019) indicated that the phenomenon of intergenerational succession of family businesses is becoming more common. To mitigate this risk and enhance the sustainability of family businesses, IRM plays a crucial role as a moderator between family business success and family business sustainability. IRM involves planning and implementing strategies to ensure a smooth transfer of ownership and control, reduce conflicts among family members, and protect the assets and reputation of the business, which includes clear communication, estate planning, and the development of fair and transparent succession policies (Bozer et al., 2017; Almahadin et al., 2022).

Family businesses encounter substantial challenges when it comes to inheritance (Wang et al., 2024). In addition, Wang et al. (2024) found that the marriage of the second generation has a significant impact on the intergenerational inheritance of the family business and improves the performance of the business. Family enterprises are undergoing a transformative phase marked by intergenerational succession, particularly as the founding generation retires in the wake of economic reforms (Jiao et al., 2019). The process of transferring leadership from the founder to the successor is a pivotal challenge, prompting an increased scholarly interest in exploring social capital issues within emerging economy family firms (Nordin et al., 2020). The intergenerational inheritance dynamics in family businesses encompass two primary aspects: the common scenario of a son inheriting the father's business and the foundational role of marital relationships within the family structure. Society places great importance on family unity, with marital relationships considered central (Barqawi, 2023).

The intergenerational inheritance of family businesses unfolds as a complex and multi-faceted process involving gradual stages, where founders transfer their management responsibilities, control, and socio-emotional wealth to family members, paving the way for the successors to assume control and ensure business continuity (Almahadin et al., 2022). Longenecker and Schoen's (1978) staged succession model delineates the key stages of family business succession, emphasizing the importance of initiating inheritance-related work years before the successors formally take charge, underscoring its long-term strategic nature.

In this intricate process, various factors influence family business succession at individual, interpersonal, organizational, and societal/environmental levels, as identified by Dou and Jia (2006). Individual factors, such as the willingness and personalities of founders and successors, play a crucial role. Interpersonal dynamics between founders and successors significantly impact succession, emphasizing the relational aspect of this process. Organizational factors, including a well-defined succession plan and shared visions within the family, contribute to smooth succession. Moreover, societal and environmental factors, including industry and social background, further shape the inheritance of family enterprises. However, the successful transmission of a family business goes beyond the mere transfer of control; true success lies in the sustainability of the family and its values (Ivan et al., 2005).

Existing literature delves into the second generation's impact on intergenerational inheritance, particularly focusing on cultivating competencies in successors. Yu (2012) identified eight critical competencies for successors, encompassing social networks, government relations, opportunity identification, risk-taking, resource integration, strategic decision-making, learning and innovation, and scientific management. By incorporating IRM practices, family businesses in the Gulf Area can minimize the potential impact of inheritance risk on their sustainability. This can lead to a more stable and secure future for the business and the family, as well as the preservation of their wealth. Moreover, it can also enhance the overall competitiveness of the business and contribute to the growth and development of the economy. However, IRM is an essential aspect of ensuring the sustainability of family businesses in the Gulf Area, particularly in the UAE. By proactively addressing and mitigating the risk, family businesses can secure their future and contribute to economic growth (Ye et al., 2021).

The critical period of generational transition and its impact on the success of inheritance are examined by Bhasi et al. (2020). In addition, Yuan (2019) confirmed that innovation is important in the context of intergenerational succession in family businesses. Yuan (2019) highlighted that there is a lack of a unified analytical framework in existing research on this topic and calls for a systematic exploration. Kiseleva et al. (2018) identified the role of risk management from an entrepreneur's perspective in family business and emphasized the importance of risk management for economic security. Visser and van Scheers (2018) highlighted the importance of effective risk management for sustainable growth. They also stressed the need to educate family business managers on defining acceptable risk. Through a conceptual investigation into risk management in family businesses, they recommended aligning risk priorities with the strategic direction of the business (Jebril et al., 2023). In addition to government initiatives, creating an open and collaborative environment among family businesses for mutual learning is very beneficial (Ho et al., 2022). Several dedicated non-profit organizations significantly contribute to the sustainable development of Middle Eastern family businesses (Usman and Ab-Rahman, 2021). Notable organizations like the Family Business Council Gulf (FBCG), Tharawat, the GCC Board of Directors Institute, and the Hawkamah Institute for Corporate Governance actively support family businesses in the region. Their mission is to enhance capabilities, facilitate peer-to-peer networking, and promote educational activities and training programs on various topics affecting family businesses (Datey et al., 2023). In addition, YiJia and Loang (2023) examined the intricacies of internal control effectiveness, shedding light on its implications for future sustainability within family firms in China. They indicated that the higher shareholding and larger corporate size by the first largest shareholder were associated with improved internal control effectiveness. In contrast, higher levels of longer market exposure, higher gearing, and executive familiarity negatively impacted internal control effectiveness. YiJia and Loang (2023) emphasized the positive effect of higher information transparency in restraining unreasonable executive behaviors and conveying critical management information to investors. Moreover, YiJia and Loang (2023) recommended that future research include enriching indicators for measuring information transparency, expanding research perspectives to include factors such as financing decisions, equity incentives, and incorporating non-listed family enterprises. This aligns with the idea of this paper regarding IRM by incorporating insights into the dynamics of internal control in family businesses. It also contributes to developing effective risk management strategies, including addressing the risks posed by the death of the owner, which is part of IRM (Alshehadeh and Al-Khawaja, 2022).

The literature provides valuable insights into the multifaceted dimensions of IRM. The exploration of family firms and their associated risks has garnered significant attention in recent literature, with studies shedding light on diverse aspects of ownership structures, managerial influence, and strategic considerations. For instance, D'Este and Carabelli's (2022) investigation focused on the nuanced relationship between family managers and the risk levels faced by firms, particularly in the context of low investor protection and firm opacity. By examining the impact of family shareholders' ownership stake and activism, the study identifies a positive association between active family ownership and increased risk within the sampled firms. Bennedsen et al. (2022) identified three key motivational drivers for international research on family business: The extent of family embeddedness in the business, dominance, and relative performance, in addition to the challenges faced by family firms, including how ownership and succession structures mitigate these challenges. Yang et al. (2022) studied the complex relationship between intergenerational succession and found that environmental regulation enhances the positive effect of succession on corporate environmental investment. Camisón-Zornoza et al. (2020) showed that a concentrated ownership structure and a large share of family wealth negatively impact dynamic capabilities, while the management structure plays a key role in developing these capabilities. They also highlighted the uneven effects of different aspects of family involvement on dynamic capabilities.

Chen et al. (2021) demonstrated that firm founders deeply influenced by Confucianism are more likely to choose a successor from within the family or a guanxi-connected non-family member. Family-guanxi-connected successors exhibit a positive effect on firm performance compared to those outside this circle. Aligning with this perspective, Stephen et al. (2019) explored the impact of inheritance practices such as primogeniture and multiple heirships on the management succession of family businesses. They found that there are significant influences of primogeniture and gender restriction on management succession, with gender restriction having the highest impact. The study underscores the need for modernizing inheritance culture to facilitate successful succession efforts in family-owned businesses. Nwuke (2017) also contributed to the development of dimensions for IRM by addressing the critical issue of leadership succession in medium-sized family businesses, where more than 50% of such businesses fail after the transition from founders. Nwuke (2017) studied the strategies family business owners use to sustain their businesses after leadership transitions. He identified four key themes: the founders' desire and support for the transition, the trust and credibility of successors, the preparation of successors, and the clarity of vision for both founders and successors. Shen and Su (2017) examined the impact of founders' religiosity on succession intentions in family firms, finding that religiosity strengthens the intention for management succession but not ownership succession. Additionally, Cao et al. (2015) showed that having only one heir reduces the likelihood of adult heirs working in the family business, decreases the chances of intra-family management succession, and lowers the founder's expectations of young heirs taking over (Alezaibe, 2022).

The literature also indicated the risk preferences associated with family involvement in businesses. For example, Cai et al. (2012) found that founder-run businesses create more value. Specifically, family CEOs outperform non-family CEOs. Wei et al. (2011) demonstrated that family firms exhibit a lower cash dividend payout ratio and propensity to pay dividends compared to their non-family counterparts. This aligns with global evidence. Adding a risk management perspective, Hiebl (2012) conducted a systematic literature review to explore the risk aversion of family firms. The study reveals that most findings support the notion that family firms tend to be more risk-averse than non-family firms. However, the phenomenon is shown to depend on the specific situation of the family firm, with some instances where controlling families may take irrational risks to secure control. The paper identifies factors influencing risk aversion in family firms and outlines outcomes associated with this characteristic. The findings suggest that understanding the situational factors and reactions of the financial services industry to the risk-avoiding behavior of family firms is crucial for a comprehensive understanding of risk aversion in family businesses. The literature on family firms, cultural influences, and resource management contributes additional dimensions to the exploration of IRM, emphasizing the importance of cultural values, family dynamics, and effective resource management in family-owned enterprises. Bertrand and Schoar (2006) acknowledged the potential significance of family values in shaping the organization and efficiency of businesses. They stress the need for further research to assess the relevance of cultural explanations for family firms and to understand the specific dimensions of family values that have the most significant impact. The authors highlight family ties as one source of cultural differences across countries but suggest that variations in inheritance structures or marriage norms may also influence the longevity and cohesion of family firms. The cultural perspective implies that family firms might be less willing to make strategic changes due to deeply embedded family values. Sirmon and Hitt (2003) proposed a resource management process model with three components: resource bundling, resource inventory, and resource leveraging. They also identified five unique resources and attributes in family firms: social capital, human capital, survivability capital, patient capital, and the governance structure.

A review of the literature above on family businesses indicates that there are major challenges in the field of IRM, especially in the generational transition stage, as the future of the company is decisively determined upon the death of the founder or owner due to the degree of ownership and the transfer of wealth across generations. The process of transferring leadership from the founder to subsequent generations is a pivotal challenge that requires strategic thinking and careful planning. In the context of family businesses, the concept of intergenerational inheritance includes the son's inheritance of the father's business and the primary influence of marital relationships within the family structure. There is a trend to expand the scope of research to include broader insights into the dynamics of family businesses. This is consistent with the vision of IRM, as controlling the internal dynamics of family businesses is an essential part of risk management strategies, with a focus on controlling risks related to the death of the owner and providing effective strategies to deal with these challenges and ensuring the sustainability of successful family businesses, which can be considered as a Family Waqf "Dynasty Endowment."

2.1. Definition of IRM

IRM is a strategic and comprehensive approach designed to identify, analyze, and mitigate the diverse risks involved in transferring wealth, assets, and leadership in family businesses across generations. IRM goes beyond traditional financial planning by addressing emotional, interpersonal, and strategic aspects to preserve family legacies, ensure business continuity, and facilitate the smooth transition of wealth.

Inheritance risk involves many factors beyond financial considerations, making it inherently complex. Effective management of inheritance risk requires a deep understanding of various dimensions crucial for the successful transfer of wealth and leadership within family businesses.

1. Financial dimension: This includes managing asset allocation, valuation, and tax planning. Accurate valuation of assets and fair distribution are essential for effective inheritance planning. Additionally, strategies to address tax implications

during wealth transfer can improve financial outcomes and sustainability.

2. Strategic dimension: Central to this is succession planning, which involves developing and implementing a robust plan to identify and prepare the next generation of leaders. Ensuring seamless operations during the transition and anticipating potential disruptions help maintain business continuity.
3. Interpersonal and emotional dimension: Understanding family dynamics and effective communication are crucial. Identifying and reconciling the aspirations and expectations of family members promotes a common vision for the future. Addressing family dynamics and communication issues can help mitigate potential conflicts during the inheritance process.
4. Legal and governance dimension: Estate planning includes establishing legally sound frameworks, such as trusts and wills, to facilitate asset transfer according to the family's governing principles. Clear governance structures enhance effective decision-making and reduce conflicts within the family and business.
5. Technological and environmental dimension: This involves integrating technology into inheritance planning processes to simplify operations and adapt to evolving business environments. Preparing for environmental and market changes, such as regulatory shifts and market fluctuations, ensures the family's business and inheritance plans remain resilient.

2.2. Dimensions of risk management

As a broader concept, Risk management involves the identification, assessment, and mitigation of potential risks across several dimensions. Risk management encompasses several dimensions to identify, assess, and mitigate potential risks comprehensively. These dimensions include financial, operational, strategic, compliance, and reputational aspects. The traditional dimensions of risk management serve as foundational elements in the development of effective risk management strategies. Risk management practices' evolution has given rise to a more comprehensive approach, recognizing the importance of addressing financial concerns and the intricate interplay of strategic, human, and emotional factors.

2.3. Emergence of dimensions in IRM

IRM dimensions emerged as a specialized subset within the broader context of risk management. To cover the unique challenges associated with the transfer of wealth in family businesses, IRM dimensions evolved to address the intricacies of family dynamics, emotions, and long-term sustainability. Each of these dimensions can be traced back to its counterpart in general risk management, with specific adaptations to suit the familial and business context. However, IRM addresses the unique challenges associated with wealth transfer in family businesses. The dimensions of IRM, including Succession Plan, Balance, Endowment, Family Control, and Respect Leadership, have emerged from the broader risk management concepts, adapting to be related to family familial and business context, as shown in Table 1. Table 1 provides a clear view of how traditional risk management dimensions are adapted for inheritance risk management within family businesses.

Table 1: Adapting the dimensions of IRM

Dimension	Risk management		IRM	
Financial dimension	Asset allocation and valuation	Managing financial assets to optimize returns and mitigate financial risks	Endowment	Extends beyond traditional financial portfolios to include family-owned businesses, real estate, and other non-traditional assets
	Tax planning	Strategizing to minimize tax implications and ensuring compliance with tax regulations	Balance	Ensures a balanced approach to wealth distribution, taking into account the diverse needs and aspirations of family members Strike a balance between the family's interests and business to ensure alignment
Operational dimension	Process risks	Identifying and managing potential inefficiencies and disruptions in business operations	Succession plan	Adapts operational continuity to comprehensive succession planning, preparing the next generation for leadership roles within the family business
	Technological risks	Addressing risks associated with technology, cybersecurity, and operational systems		
Strategic dimension	Market risks	Evaluating risks from market fluctuations, competition, and changes in consumer behavior	Family control	Recognizes the strategic importance of maintaining family control in the governance and decision-making processes of the business
	Business continuity	Ensuring strategies are in place to sustain operations in the face of unexpected disruptions	Respect leadership	Emphasizes the importance of leadership based on respect and shared values to sustain the family's vision
Compliance dimension	Legal and regulatory compliance	Adhering to laws and regulations to mitigate legal and regulatory risks	Estate planning	Incorporates legal frameworks, including wills, trusts, and family constitutions, to ensure compliance with legal requirements
	Ethical considerations	Addressing ethical concerns and aligning business practices with ethical standards		
Reputational dimension	Brand and reputation risks	Safeguarding the company's reputation by managing risks associated with public perception and brand image	Governance structures	Extends reputational risk management to include family governance, ensuring ethical and responsible behavior in the context of family wealth and inheritance

Effective IRM is crucial for long-term growth and sustainability in family businesses. This approach involves strategic planning, strong governance, and clear succession plans. A proactive strategy based on risk management is proposed, which includes evaluating risks using the risk exposure equation. This equation helps measure the potential impact of risks and their likelihood, determining the sensitivity of family businesses to inheritance risks.

By using this formula as part of IRM advisory services, families can understand their risk components and make informed decisions to reduce risk, improve intergenerational transfer, and ensure business continuity. On December 13, 2015, the Department of Economic Development in the United Arab Emirates approved IRM as a business, confirming its commitment to helping family companies in the UAE manage and reduce succession risks. The author developed a commercial activity under the name of IRM, which was approved in December 2015. IRM for family businesses includes several important dimensions to ensure business sustainability and protect the interests of both the company and the family. The key dimensions of IRM are:

- Strategic planning
  - Setting clear goals for estate management and ensuring business sustainability.
  - Developing a strategy to guide the company post-estate and identifying future markets and strategic areas.
- Financial aspects
  - Accurately evaluating and documenting assets and liabilities related to estates.
  - Distributing assets among heirs or partners in a fair and appropriate manner.
- Maintaining company stability
  - Developing plans to deal with unexpected legacies and identifying financial sources to support the company in such cases.
- Tax planning
  - Analyzing the potential tax impacts of estates and designing effective tax strategies.
- Governance and transparency
  - Applying good governance practices and defining roles and responsibilities between family members and company management.
  - Disclosing financial and strategic information in a transparent manner to all concerned parties.
- Conflict management
  - Developing mechanisms to resolve disputes between family members or partners in a constructive and neutral manner.
- Training and development
  - Guiding and training new generations in the company to ensure skills development and business continuity.
- Performance evaluation
  - Conducting periodic evaluations of the company’s performance and the extent to which the objectives of IRM are achieved.
- Insurance
  - Considering purchasing life or business insurance policies to mitigate financial risks due to estates.
- External consultation
  - Cooperating with consultants specialized in estate risk management to obtain professional advice.

IRM for family businesses involves a multifaceted approach encompassing various dimensions to guarantee sustainability and protect both the business's interests and the family Inheritance. IRM evolution as a specialized subset within the broader context of risk management reflects its adaptation to address the unique challenges associated with the transfer of wealth in family businesses. IRM dimensions have emerged from general risk management concepts to the intricate family businesses.

Each dimension aligns with its counterpart in general risk management, with specific adaptations to accommodate the familial and business context. This comprehensive framework recognizes the emotional, interpersonal, and strategic complexities inherent in intergenerational wealth transfer within family businesses, aiming to foster a resilient family inheritance that endures across generations. However, this paper suggests the following hypothesis:

H1: Success positively affects the IRM in family businesses.
H2: IRM positively affects the sustainability of family businesses.
H3: Success positively affects the sustainability of family businesses.
H4: IRM meditates on the relationship between the success of family businesses and sustainability
H5: IRM moderates the relationship between family business success and sustainability.

3. Method

The laws highlight the importance of nuclear endowments in determining the optimal use of inheritance. Article 4 of Federal Law No. 5 of 2018 categorizes endowments into civil, charitable, and joint endowments. Article 32 states that nuclear endowments can be used for owning family companies provided there are controls and conditions to avoid conflicts with legal provisions. Law No. 14 of 2017, Article 2, describes the types of endowments: charitable, nuclear, and joint endowments. These laws help manage risks and ensure the sustainability of resources to protect the rights of future generations. Lastly, Law No. 8 of 2018 emphasizes the importance of specifying the purposes, duration, and scope of endowments. This demonstrates that managing inheritance risks and implementing nuclear endowments requires an integrated approach combining laws and policies to ensure effective protection for current and future generations.

3.1. Measuring IRM

Measuring the dimensions of IRM in family businesses is challenging due to the complex and qualitative nature of these dimensions. This complexity arises from the intricate nature of family businesses and the lack of a comprehensive understanding of these dimensions and their components. In this paper, we address IRM dimensions by conceptually representing them in a mathematical model with equations. Although the actual measurement methods may vary depending on the context and purpose, the model aims to illustrate the interaction between the main dimensions. To measure IRM dimensions, we can develop a set of equations that include various factors, each weighted by their importance. Here is a detailed breakdown:

- Strategic planning (SP)

$SP = \alpha_1.(Clear\ Goals) + \alpha_2.(Strategic\ Guidance)$

- Financial aspects (FA)

$FA = \beta_1.(Asset\ Evaluation) + \beta_2.(Fair\ Distribution)$

- Maintaining company stability (MCS)

$MCS = \gamma_1.(Unexpected\ Inheritance\ Plans) + \gamma_2.(Financial\ Support\ Identification)$

- Tax planning (TP)

$TP = \delta_1.(Tax\ Impact\ Analysis) + \delta_2.(Effective\ Tax\ Strategies)$

- Governance and transparency (GT)

$GT = \epsilon_1.(Good\ Governance\ Practices) + \epsilon_2.(Transparency\ Measures)$

- Conflict management (CM)

$CM = \zeta_1.(Dispute\ Resolution\ Mechanisms) + \zeta_2.(Neutral\ Dispute\ Handling)$

- Training and development (TD)

$TD = \eta_1.(Successor\ Guidance\ and\ Training) + \eta_2.(Continuity\ Skill\ Development)$

- Performance evaluation (PE)

$PE = \theta_1.(Periodic\ Evaluation) + \theta_2.(Objective\ Achievement\ Measurement)$

- Insurance (IN)

$IN = \iota_1.(Risk\ Mitigation\ Policies) + \iota_2.(Financial\ Risk\ Coverage)$

- External consultation (EC)

$EC = \kappa_1.(Professional\ Advice\ Seeking) + \kappa_2.(Consultant\ Cooperation)$

The coefficients $(\alpha, \beta, \gamma, \delta, \epsilon, \zeta, \eta, \theta, \iota, \kappa)$ represent the weight or importance of each factor within each dimension. These weights can be determined based on expert judgment, statistical analysis, or empirical data.

IRM encompasses a multidimensional approach aimed at ensuring the smooth transition of wealth. Thus, the development of this concept involves understanding its complexities. However, empirical research and data analysis are essential for measuring and calibrating these dimensions. In the area of family control, assessing the maintenance of family control includes evaluating the power structures within the family business. Periodic reports to family members are a key mechanism for achieving transparency and accountability. Questions about the family's response to periodic reports to family members and its participation in discussions with management help measure the effectiveness of family monitoring. Exploring the existence of the power matrix provides insight into the decision-making processes and delegation of responsibilities within the family.

Respecting leadership, having refined rules and leadership framework, and representing family members in the business as dimensions involve conflict resolution procedures that add another layer to understanding how leadership promotes a respectful and harmonious environment within the family business. Evaluating the training and preparation of successors, along with transparency in selecting the next family leader and the existence of a family constitution that provides insights into succession preparation, profit distribution policies, and reinvestment, contribute to measuring the strength of the succession plan. Succession planning is also critical to the long-term sustainability of family businesses. In addition, balance, clarity in family members' responsibilities and rules, family members allocating regular time in the business, as well as the existence of employment policies for family members contribute to assessing the extent of the family's success in achieving a balance between its obligations to the business and family members. Endowment was also included as a dimension that explores the family business's involvement in charitable work and endowment activities. It indicates the family's commitment to social responsibility and charitable work. This is consistent with the broader concept of balancing financial success with social impact within the framework of IRM, especially in complex family businesses:

- Family control (FC)
  - FC1: Periodic reports submitted to family members contribute to maintaining control within the family business.
  - FC2: Family members respond actively to reports they receive, demonstrating their involvement and control.
  - FC3: There is a clear authority matrix that defines roles and responsibilities within the family business to achieve effective control.
  - FC4: Family members discuss management based on reports provided on an ongoing basis.
  - FC5: All processes within the family business are transparent, with roles and responsibilities clearly defined.
  - FC6: Control policies are communicated to family members in high quality, ensuring understanding and alignment with business objectives.
- Respect leadership (RL)
  - RL1: The family business has one clear point of reference for family decisions, which serves to promote respect and unity.
  - RL2: There is an effective representation of senior family members in the company, ensuring consistency and fairness in decision-making.

- RL3: Leadership values are communicated to the family and company members accurately and clearly, ensuring a culture of respect within the family business.
- RL4: Conflict resolution procedures are clearly defined, which contributes to effective, respectful leadership.
- RL5: Family businesses have clear leadership rules for both family members and the company, ensuring respect and adherence to established principles.

- Succession plan (SP)
  - SP1: A family business has a clearly defined strategy, which contributes to a smooth succession plan.
  - SP2: There is a written family constitution that sets out principles and guidelines for succession and the transfer of leadership between successive generations.
  - SP3: Active preparation and training of successors takes place before the actual succession occurs.
  - SP4: The successor selection process is clearly defined, ensuring transparency and fairness in selecting the next family leader.
  - SP5: Family members have sufficient understanding and approval of dividend and reinvestment policies for the long-term sustainability of the family business.
  - SP6: Leadership rules are easy and clear for both family members and the company, which contributes to effective succession planning.
- Balancing family concerns and business interests (B)
  - B1: Family members devote regular time specifically to company affairs, balancing personal and business commitments.
  - B2: A family business has well-defined employment policies for family members within the company.
  - B3: The family business is committed to balancing financial success with charitable activities.
  - B4: The specific responsibilities and rules of family members are clear and transparent within the family business.
  - B5: There are clear rules, principles, and policies for distributing profits and reinvesting in the family business, ensuring a balanced approach to financial decision-making.
- Endowment and charity activities (E)
  - E1: Providing periodic reports to family members ensures transparency in the family business and clearly defines its spending areas for endowment activities.
  - E2: Family businesses adhere to clear rules and guidelines regarding charitable donations.
  - E3: The family considers zakat an integral part of its charitable contributions.
  - E4: The company has a dedicated entity to manage charitable donations.
  - E5: Family businesses involve the family in endowment activities, which reflects a commitment to social responsibility.
  - E6: Zakat is treated as an obligation of the family business, and rules for charitable donations are set on an ongoing basis.

These dimensions and abbreviations provide a structured approach to evaluating and managing the various aspects of inheritance risk within family businesses. Each dimension focuses on critical areas that contribute to the overall stability, sustainability, and integrity of the family business, ensuring a balanced approach to managing inheritance and succession challenges.

According to the Family Waqf "Dynasty Endowment" or "Family Endowment", endowment and charitable activities play a crucial role in reflecting the values and social responsibility of the family within family businesses. Evaluation of family participation in endowment activities indicates a commitment to charitable work. The scale received in this dimension seeks to measure the extent of the family's participation in endowment activities by inquiring about the existence of an official endowment activity initiated by the family, the role of zakat (charitable giving based on Islamic principles), formulating clear rules governing donation practices, and finally, establishing a donation entity within the business.

This paper focuses on measuring the concept of IRM dimensions related to family businesses. The questionnaire was presented to experts in the field of inheritance, endowments, as well as experts in the Abu Dhabi Chamber of Family Businesses and some private companies. Then, the scale was confirmed in terms of validity and reliability. A semi-structured questionnaire was distributed via email to a group of advisors and administrators from family members, as well as some famous families that own companies considered to be a family endowment. However, the sample consisted of family companies in the UAE. However, this study proposes a model to measure IRM, as shown in Fig. 1.

Outlier loading values above 0.7 for each indicator were removed for several study variables. As a result, item "SP6" was removed because its factor loading was less than 0.70. This element focuses on family concerns so future researchers can adapt it to better fit their study's purpose. It seems the sample was not fully aware of the leadership rules and their impact on succession planning in family businesses. However, Table 2 shows an assessment of variable reliability.

R^2 values are a statistical measure used to evaluate the strength of the relationship between independent variables and the dependent variable in a regression model. R^2 values range from 00 to 01, where zero represents no explanatory power for the independent variables. When the value of R^2 is high, this indicates that the independent variables effectively explain the variance of the dependent variable, which means that there is a strong relationship between them. On the other hand, if the R^2 value is low, this indicates that the independent variables do not adequately explain the variance in the dependent variable, which means a weak relationship. Classification of R^2 values, such as "poor," "moderate," and "good," is also a useful tool for estimating model quality. For example, R^2 values between 0.19 and 0.33 are considered "poor," those between 0.33 and 0.67 are considered "moderate," and greater than 0.67 are considered "good." This classification provides a qualitative assessment of the strength of the model, which researchers and analysts can use to understand the extent to which independent variables influence the dependent variable.

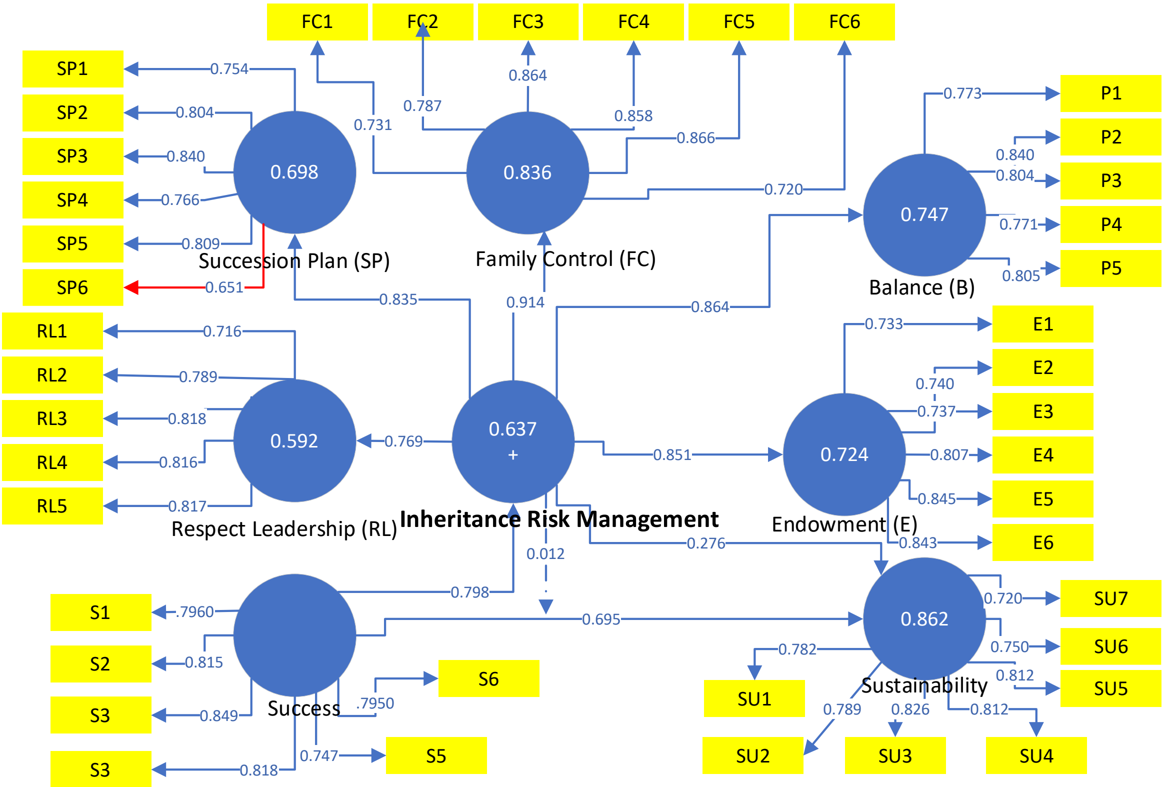

Fig. 1: Measurement model

Table 2: Reliability testing

	Cronbach's alpha	Composite reliability (ρ_a)	Average variance extracted
Balance (B)	0.858	0.860	0.639
Endowment (E)	0.875	0.880	0.617
Succession plan (SP)	0.863	0.864	0.598
Family control (FC)	0.891	0.894	0.651
Respect leadership (RL)	0.853	0.859	0.631
IRM	0.954	0.957	0.628
Success	0.890	0.892	0.647
Sustainability	0.892	0.895	0.608

R^2 value analysis plays a crucial role in evaluating the quality of the IRM measure for family businesses. If the value is high, the measure shows high efficiency in explaining changes in the dependent variable, which indicates its effectiveness in predicting the variable. However, if the R^2 value is less than 0.70, this may be seen as a challenge that requires enhancing the effectiveness of the measure. The items included in the scale are examined and improved to ensure better coverage and explanatory power of the independent variables in the context of effective management of inheritance risks in family businesses, as shown in Table 3. To test the hypotheses, various indicators are examined. A value close to +1 reveals a positive relationship between variables, while a value close to -1 indicates a negative relationship. In addition, the results of hypothesis testing can be seen in Figs. 2 and 3 and Table 4.

Figs. 2 and 3 illustrate hypothesis testing through the availability of path coefficients. Table 4 contains the results of hypothesis testing for direct and indirect effects. For hypothesis testing, in the direct effects section, the relationships between variables. In the moderator effects section, the interaction terms involve the multiplication of the two variables (e.g., IRM x Success->Sustainability). Thus, IRM mediates the relationship between Success and Sustainability in family businesses.

Table 3: R^2 results

	R-squared	R-squared adjusted
Balance (B)	0.747	0.746
Endowment (E)	0.724	0.722
Family control (FC)	0.836	0.795
IRM	0.637	0.635
Respect leadership (RL)	0.591	0.589
Succession plan (SP)	0.628	0.626
Sustainability	0.862	0.860

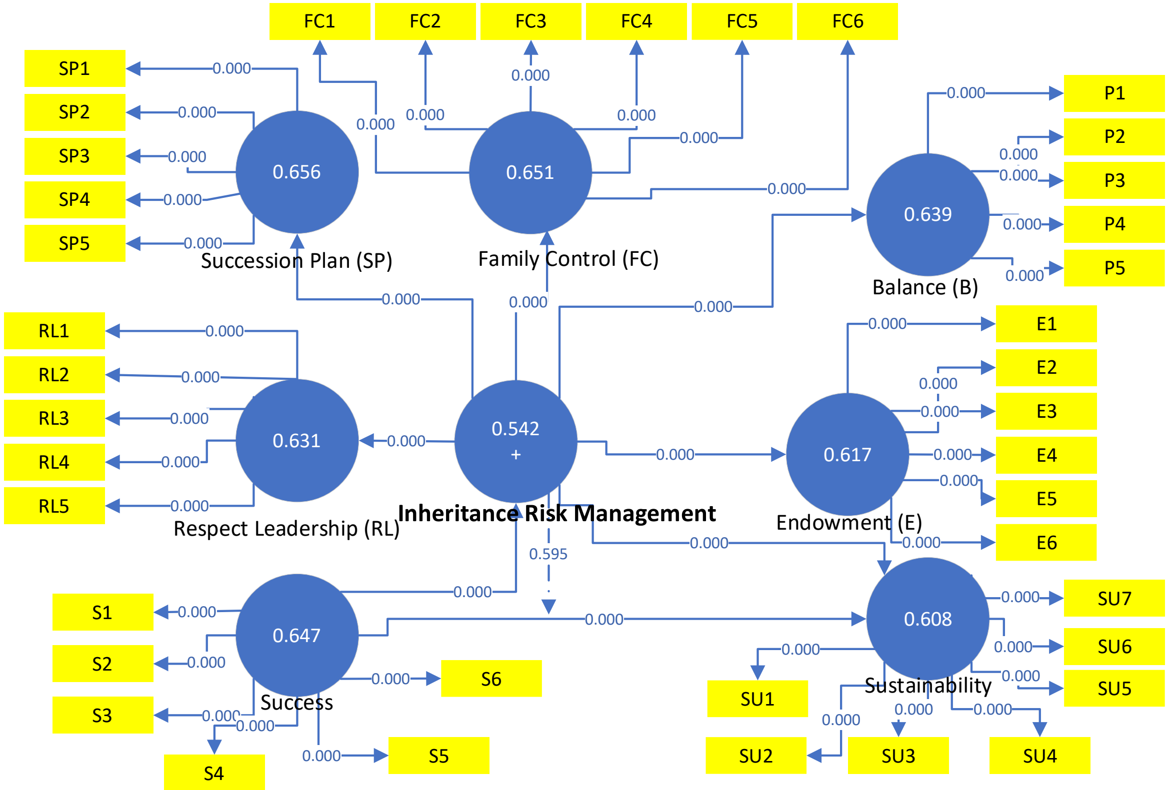

Fig. 2: Structural model (Mediation)

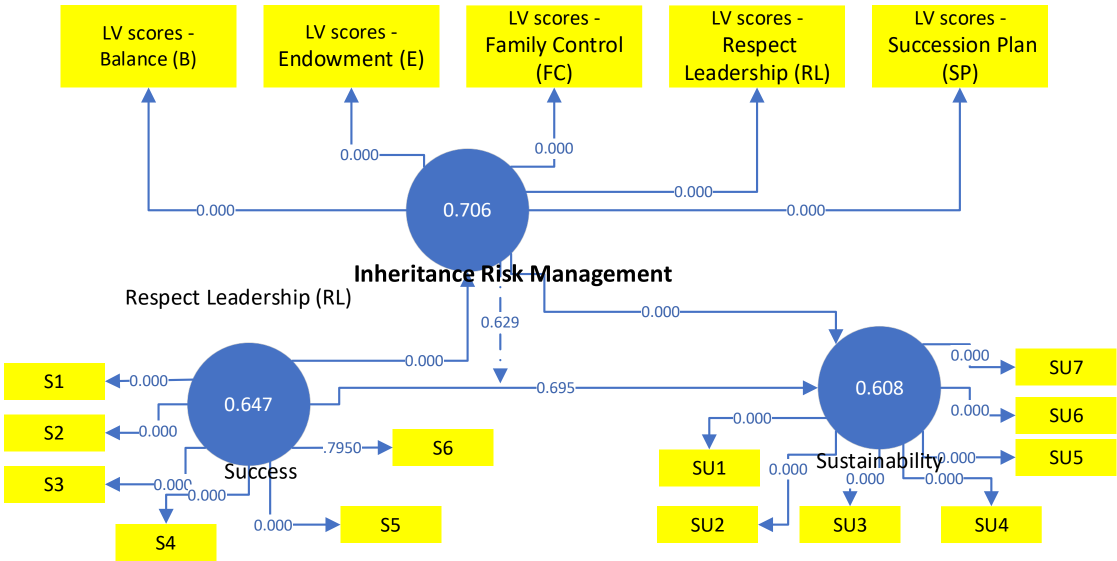

Fig. 3: Structural model (Full model)

Table 4: Hypothesis testing

Path	β	STDEV	T-values	P-values	
Direct effect					
IRM -> Sustainability	0.271	0.039	6.981	0.000	Accepted
Success -> IRM	0.799	0.022	35.603	0.000	Accepted
Success -> Sustainability	0.698	0.037	18.862	0.000	Accepted
IRM x success -> Sustainability	0.012	0.024	0.483	0.629	Rejected
Mediation effect					
Success -> Sustainability	0.217	0.032	6.725	0.000	Accepted

Table 4 displays the results of examining the different paths in the model. The direct effects show a significant positive relationship between legacy risk management and sustainability and success and legacy risk management, as well as success and sustainability. These relationships are supported by high T values and low P values, indicating statistical significance. Therefore, these direct effects are plausible, indicating that effective management of inheritance risks contributes positively to the sustainability of family firms. However, the interaction effect between legacy risk management and success on sustainability is not statistically significant (P value=0.629), leading to the rejection of this specific hypothesis. This suggests that the combined effect of legacy risk management and success does not significantly affect the overall sustainability of family firms. In addition, the mediation effect of success on the relationship between legacy risk management and sustainability is significant, as evidenced by the T value of 6.725 and the low P value of 0.000. This means that success partially mediates the relationship between legacy risk management and sustainability, suggesting that the positive effect of effective legacy risk management on sustainability is partly channeled through family business success.

4. Discussion and conclusion

This paper indicates that there are risks resulting from the death of the owner or the circulation of family assets, which is represented by inheritance risks. From the point of view of managing these risks, the management of inheritance risks, including family businesses and real estate, is included among family members, extending from the first to the fourth generation. The results also indicate that the challenges of continuity of wealth in family businesses are foregrounded by the issue of "control," that is, maintaining family control over the business. Other challenges include "balance," where policies and procedures must be developed to enhance this balance and avoid distraction between family and operational responsibilities. Succession is another challenge. Selecting the right successor in advance is an important challenge that requires establishing clear procedures to define the criteria and skills needed for the successor and direct processes for successful continuity. Another challenge is "grooming," which includes preparing the heirs to face potential challenges and equipping them with the necessary skills to lead the family business. The final challenge requires maintaining and respecting the role of family elders, which is "respect for leadership," which enhances stability and family unity and contributes to maintaining a spirit of cooperation and understanding within the family business.

By including these various dimensions, a strong framework is created that protects financial assets, enhances the emotional well-being of family members, and ensures the sustainable success of the family business across generations. With the necessity of activating the nuclear endowment to protect future generations, as the offspring are known as males and females, and what is produced from them. While a nuclear endowment is considered to be the retention of the principal and the granting of interest. This concept of IRM is linked to the activation of the nuclear endowment and includes a set of goals and benefits that benefit individuals and society alike. Activating the nuclear endowment contributes to social insurance and protects vulnerable families, such as widows, divorcees, spinsters, orphans, and people with disabilities. Among the other benefits of activating the nuclear endowment are the preservation and development of wealth, which contributes to the continued productivity of the endowment and its continued reward after his death, as it is considered ongoing charity. From financial aspects, the activation of this endowment provides the ability to predict the financial future, which contributes to protecting the local economy and achieving financial stability. On the social and family level, the nuclear endowment enhances the continuity of family ties and increases their cohesion, as it works to provide psychological comfort to the donor by securing the financial future of his descendants. In the same context, it contributes to strengthening the bonds of love and respect between successive generations. The Atomic Endowment also contributes to the educational aspect by developing the spirit of giving and giving among children and grandchildren, as they are witnesses to the family traditions and human values that the donor enjoys. Consequently, a new generation is formed that preserves these values, inherits them in the future, and works to develop and preserve them.

IRM plays an effective role in minimizing the risks associated with the death of the owner. However, these results provide strong support for direct effects, suggesting that both IRM and success play critical roles in enhancing family business sustainability. Moreover, the mediation effect of success confirms its mediating role in influencing the relationship between legacy risk management and sustainability. This study serves as a stepping stone for further exploration, emphasizing the need for ongoing research and the development of best practices in family business studies. By understanding and navigating the complexities of inheritance risks, this paper contributes to the resilience and prosperity of family businesses, fostering their endurance across generations. The proposed strategies align with current needs in addition to positioning family businesses to thrive in the face of future challenges.

Acknowledgment

This paper is part of a Ph.D. thesis on IRM. Special thanks are extended to the participants of this study for their cooperation and willingness to share their experiences, which have been essential for the success of this research. Their insights provided valuable empirical evidence and enriched the depth of our analysis.

Compliance with ethical standards

Ethical considerations

This research was conducted in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki Declaration and its later amendments or comparable ethical standards. Informed consent was obtained from all individual participants included in the study. The study protocol was approved by the institutional review board of Universiti Sains Malaysia (USM). The confidentiality of the participants was maintained by anonymizing the data and securely storing the information.

Conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

References

Alezaibe L (2022). Suggested educational ways to activate the role of universities in developing awareness of heritage and renewal among students in light of today's challenges. Al-Zaytoonah University of Jordan Journal for Human and Social Studies, 3(1): 120-140.

Almahadin H, Kaddumi T, Jaradat M, Shneikat B, and Alkhazaleh M (2022). The influences of Interest rate volatility on banking sector development: Evidence from cross countries in the MENA region. Decision Science Letters, 11(4): 443-454. https://doi.org/10.5267/j.dsl.2022.7.001

Alshehadeh AR and Al-Khawaja HA (2022). Financial technology as a basis for financial inclusion and its impact on profitability: Evidence from commercial banks. International Journal of Advances in Soft Computing and Its Applications, 14(2): 125-138. https://doi.org/10.15849/IJASCA.220720.09

Baltazar JR, Fernandes CI, Ramadani V, and Hughes M (2023). Family business succession and innovation: A systematic literature review. Review of Managerial Science, 17(8): 2897-2920. https://doi.org/10.1007/s11846-022-00607-8 **PMCid:PMC9838288**

Barqawi L (2023). The impact of using artificial intelligence in pharmaceutical companies. Al-Zaytoonah University of Jordan Journal for Legal Studies, 4(1): 217-236.

Bennedsen M, Lu YC, and Mehrotra V (2022). A survey of Asian family business research. Asia-Pacific Journal of Financial Studies, 51(1): 7-43. https://doi.org/10.1111/ajfs.12363

Bernhard F, Hiepler M, and Engel FX (2020). Family business sustainability: The intergenerational transfer of social capital and network contacts. In: Saxena Arora A, Bacouel-Jentjens S, Sepehri M, and Arora A (Eds.), Sustainable innovation. Trends in marketing and management. Palgrave Macmillan, Cham, Switzerland. https://doi.org/10.1007/978-3-030-30421-8_9

Bertrand M and Schoar A (2006). The role of family in family firms. Journal of Economic Perspectives, 20(2): 73-96. https://doi.org/10.1257/jep.20.2.73

Bhasi M, Renuka VV, and Rajkumar S (2020). A study of factors affecting inheritance success in family businesses in Kerala. International Journal of Family Business and Regional Development, 1(1): 62-80. https://doi.org/10.1504/IJFBRD.2020.10033495

Bozer G, Levin L, and Santora JC (2017). Succession in family business: Multi-source perspectives. Journal of Small Business and Enterprise Development, 24(4): 753-774. https://doi.org/10.1108/JSBED-10-2016-0163

Cai D, Luo JH, and Wan DF (2012). Family CEOs: Do they benefit firm performance in China? Asia Pacific Journal of Management, 29(4): 923-947. https://doi.org/10.1007/s10490-012-9318-4

Camisón-Zornoza C, Forés-Julián B, Puig-Denia A, and Camisón-Haba S (2020). Effects of ownership structure and corporate and family governance on dynamic capabilities in family firms. International Entrepreneurship and Management Journal, 16(4): 1393-1426. https://doi.org/10.1007/s11365-020-00675-w **PMCid:PMC8824595**

Cao J, Cumming D, and Wang X (2015). One-child policy and family firms in China. Journal of Corporate Finance, 33: 317-329. https://doi.org/10.1016/j.jcorpfin.2015.01.005

Chen M, Xiao JZ, and Zhao Y (2021). Confucianism, successor choice, and firm performance in family firms: Evidence from China. Journal of Corporate Finance, 69: 102023. https://doi.org/10.1016/j.jcorpfin.2021.102023

Conz E, Denicolai S, and De Massis A (2023). Preserving the longevity of long-lasting family businesses: A multilevel model. Journal of Management and Governance. https://doi.org/10.1007/s10997-023-09670-z

Datey A, Bali B, Bhatia N, Khamrang L, and Kim SM (2023). A gendered lens for building climate resilience: Narratives from women in informal work in Leh, Ladakh. Gender, Work and Organization, 30(1): 158-176. https://doi.org/10.1111/gwao.12667

D'Este C and Carabelli M (2022). Family ownership and risk: The role of family managers. Corporate Governance: The International Journal of Business in Society, 22(6): 1161-1177. https://doi.org/10.1108/CG-09-2021-0338

Dou JS and Jia SH (2006). A review of research on influencing factors of intergenerational inheritance of family businesses. Foreign Economics and Management, 28(9): 52–58. https://doi.org/10.16538/j.cnki.fem.2006.09.008

Hiebl MR (2012). Risk aversion in family firms: What do we really know? The Journal of Risk Finance, 14(1): 49-70. https://doi.org/10.1108/15265941311288103

Ho CH, Böhm S, and Monciardini D (2022). The collaborative and contested interplay between business and civil society in circular economy transitions. Business Strategy and the Environment, 31(6): 2714-2727. https://doi.org/10.1002/bse.3001

Ivan L, Xu YL, and Fu YH (2005). Sustainable family business: How to succeed in intergenerational inheritance. The Commercial Press, Shanghai, China.

Jamali D and El Safadi W (2019). Adaptations of CSR in the context of globalization the case of the GCC. In: Wang GY (Ed.), Globalization: 123-142. IntechOpen, London, UK. https://doi.org/10.5772/intechopen.79035

Jebril I, Almaslmani R, Jarah B, Mugableh M, and Zaqeeba N (2023). The impact of strategic intelligence and asset management on enhancing competitive advantage: The mediating role of cybersecurity. Uncertain Supply Chain Management, 11(3): 1041-1046. https://doi.org/10.5267/j.uscm.2023.4.018

Jiao KL, Li YS, and Hu WB (2019). Research on the motivations of inheritance models selection in family firms: From the SEW perspective. Economic Management, 1: 71-88.

Kiseleva IA, Karmanov MV, Korotkov AV, Kuznetsov VI, and Gasparian MS (2018). Risk management in business: Concept, types, evaluation criteria. Espacios, 39: 27.

Longenecker JG and Schoen JE (1978). Management succession in the family business. Journal of Small Business Management, 16(3): 1-6.

Nordin N, Ak SN, Ale Ebrahim N, and Samsudin MA (2020). Bibliometric analysis of publication trends in family firms' social capital in emerging economies. Journal of Entrepreneurship, Business and Economics, 8(1): 144-179.

Nwuke O (2017). Leadership transition strategies for medium-sized family businesses' sustainability. Ph.D. Dissertation, Walden University, Minneapolis, USA.

Shen N and Su J (2017). Religion and succession intention-Evidence from Chinese family firms. Journal of Corporate Finance, 45: 150-161. https://doi.org/10.1016/j.jcorpfin.2017.04.012

Sirmon DG and Hitt MA (2003). Managing resources: Linking unique resources, management, and wealth creation in family firms. Entrepreneurship Theory and Practice, 27(4): 339-358. https://doi.org/10.1111/1540-8520.t01-1-00013

Song S, Zhou L, Sindakis S, Aggarwal S, and Chen C (2022). The impact of intergenerational succession intention on family firm's innovation strategy: Evidence from China. Journal of the Knowledge Economy. https://doi.org/10.1007/s13132-022-01078-8 **PMCid:PMC9590397**

Stephen OU, Rejoice OE, and Uloma EH (2019). Inheritance culture and management succession of family-owned businesses in Nigeria: An empirical study. European Journal of Business and Innovation Research, 7(3): 31-47.

Usman M and Ab-Rahman A (2021). Funding higher education through Waqf: A lesson from Pakistan. International Journal of Islamic and Middle Eastern Finance and Management, 14(2): 409-424. https://doi.org/10.1108/IMEFM-05-2019-0200

Visser T and van Scheers L (2018). Can family business managers manage family business risks? Management: Journal of Contemporary Management Issues, 23(1): 123-137. https://doi.org/10.30924/mjcmi/2018.23.1.123

Wang L, Ye X, Fu Y, and Zhang X (2024). Does the well-matched marriage of successor affect the intergenerational inheritance of family business? Humanities and Social Sciences Communications, 11: 81. https://doi.org/10.1057/s41599-023-02544-7

Wei Z, Wu S, Li C, and Chen W (2011). Family control, institutional environment and cash dividend policy: Evidence from China. China Journal of Accounting Research, 4(1-2): 29-46. https://doi.org/10.1016/j.cjar.2011.04.001

Yang BY, Nahm A, and Song Z (2022). Succession in family business and environmental investment: The moderating role of external environment. Economic Research, 35(1): 5997-6015. https://doi.org/10.1080/1331677X.2022.2043763

Ye B, Jiang J, Liu J, Zheng Y, and Zhou N (2021). Research on quantitative assessment of climate change risk at an urban scale: Review of recent progress and outlook of future direction. Renewable and Sustainable Energy Reviews, 135: 110415. https://doi.org/10.1016/j.rser.2020.110415

YiJia W and Loang OK (2023). Enterprise risk management and internal control of Chinese family businesses. International Journal of Accounting, 8(46): 119-136.

Yu BB (2012). Competent-performance modeling of family business successors: Based on the empirical analysis to Shaoxing businessman's inheritance. Nankai Business Review International, 3: 61-71.

Yuan X (2019). A review of succession and innovation in family business. American Journal of Industrial and Business Management, 9: 974-990. https://doi.org/10.4236/ajibm.2019.94066