**Blockchain Meets Winery: Innovation for SME Succession**

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# ***Abstract***

*SMEs differ fundamentally from large organisations when it comes to succession planning. If large companies are looking for suitable promotions, SMEs are looking for external buyers who are difficult to find. Cultural differences between the previous owner and the successor, as well as resistance from the workforce, can also jeopardize succession. Inheritance disputes in family businesses are also legendary. This study carried out a survey on a family business in the wine industry that can be described as a small business with a production of 100,000 bottles per year. We know from this company that succession planning is considered to have failed and there is no buyer for the winery. One possible discussed solution to this problem could be a so-called decentralized autonomous organization, which has been researched in the sector with the WineDAO project, an innovative concept that explores the potential of a decentralized wine economy. The topic has been investigated by conducting a survey among wine experts, but also possible investors of a winery. A survey with 91 participants revealed a solid initial interest, with experienced investors over 45 years of age showing a greater willingness to invest. The findings highlight the potential of WineDAO but also underscore the need for strategic planning and a well-defined business model.*

# ***Keywords***

## Succession Planning, DAO, Blockchain, Corporate Governance

**1. Introduction**

Various statistics show that wine consumption has fallen sharply over the last 15 years. According to the French Comité National des Interprofessions des Vins (CNIV), the average domestic per capita consumption of wine is expected to be 27.22 litres in 2025. By comparison, this figure was 41.6 litres in 2010. Various reasons have led to a weakening of the market for wine and thus the entire wine sector with the directly associated 500,000 jobs (CNIV estimate) [1]. The company we analysed has an established market but has not been able to sell its entire production on it for years and is sitting on residual stocks (dating back to the 2016 vintages) worth three million euros. In terms of infrastructure, the winery is up to date and has no investment backlog. Nevertheless, there are no family members, neighbouring businesses or private investors. The dilemma: the production of 100,000 bottles is too small for a large company, and the winery is too risky and too expensive for private investors. The employees and family members lack the capital for a successful succession plan. Different Studies show that less than a third of family firms successfully managing a succession process. Many are in lack of a well-developed succession plan [2]. Umans et al. (2020) [2] examines different aspects of the issue such as governance, planning and emotions in the overall process of succession. The study shows that governance structures are positively related to a successfully managing a succession process. In our research, it is fair to say that these governance structures are in place at the winery and yet the planning is not being done. Time is running out, as the patron of the family business is already over 80 years old. Even though various wineries try to maintain their existence and customer loyalty with wine clubs, this winery still has the problem of family members who want to be paid off through inheritance. The idea soon arose of whether a wine community should buy the winery, and the employees should continue to run it. This starting point offered the participating researchers 2 modern aspects to consider. (1) The mode of action of a Decentralised Autonomous Organisation as a new form of organisation and the crowd intelligence it contains between actors pursuing a common goal and (2) the aspect of crowdfunding which could take place through an international wine enthusiast community. Specifically, the question was to what extent wine enthusiasts of different ages would be enthusiastic and actively involved in such a form of organisation and how much money they would be willing to contribute. In this context, a tokenisation of the company would be conceivable for financing and holding the shares. This affinity should also be clarified in the study. As a result, this paper presents a project that leverages the principles of DAOs into winery ownership called WineDAO. It looks to enable employees, wine enthusiasts, and investors to co-own a winery through tokenized shares, promoting a more sustainable and inclusive ownership model. Rather than replacing traditional ownership structures, WineDAO serves as a complementary framework, that enhances community engagement, supports both individuals and businesses, and tackles key challenges in governance, financing, and succession planning.

* 1. **Background and Research Context**

**1.1.1. Succession challenges in traditional SME businesses**

Baltazar et al. (2025) show in a comprehensive literature review that the topic of succession planning is an important area of research [3]. Succession planning is seen as a critical moment in a family business [4]. In Europe alone, according to the European Commission, 690,000 European small and medium-sized enterprises change hands each year, affecting 2.8 million jobs [4]. The study by Kropp et al. (2013) concludes that finances play a central role and that the successful succession of different skillsets in handling finances plays a central role. It states that succession planning has a multidimensional perspective [4]. These dimensions are organised around a set of emotionally charged interpersonal relationships that can result in positive or negative consequences [2, 5]. Consequently, succession issues quickly arise [5]. In larger SMEs, there is a mix of non-family members that can exacerbate the problem [5]. Ideally, the business can be passed on within the family to maintain the family legacy [2, 3]. However, this requires a loyal attitude within the family [3]. However, succession also means change within the organisation. These changes can have fatal consequences for the organisation, resulting in unnecessary turnover within the workforce [6]. Ultimately, there may simply be a lack of a successor or financing may not be possible from the workforce [4]. This is the case at the winery analysed in the study. The workforce would be willing, but the family can no longer do so due to risk considerations about the future, but also due to a lack of financial resources. A flawless business is in danger of collapsing.

**1.1.2. Introduction to blockchain tokenization technologies and DAOs as potential solutions**

Tokenization is the process of converting ownership rights of physical or digital assets into blockchain-based tokens [7]. This approach enables fractional ownership, enhances liquidity, and broadens access to markets that were previously restricted to a select few. Blockchain technology serves as the foundation, providing transparency, security, and immutability for all transactions [8]. In finance, tokenization has disrupted traditional asset management by enabling smaller investors to access high-value assets, such as real estate and fine art [9]. Tokenization has expanded beyond individual assets to include entire business models, enabling companies to distribute ownership across a diverse group of stakeholders. This approach opens new possibilities for community engagement, investment, and governance. By tokenizing their operations, businesses can raise capital more efficiently while strengthening relationships with their stakeholders through shared ownership and participation [10]. Similarly, in agriculture, platforms like GrainChain have leveraged blockchain technology to tokenize crops and land, increasing liquidity, transparency, and trust in transactions. DAOs are blockchain-based entities managed collectively by their members through rules encoded in smart contracts. Unlike traditional organizations, DAOs operate without centralized leadership, facilitating decentralized decision-making and community driven governance. This organizational model ensures that control is distributed among stakeholders, reducing reliance on intermediaries and enhancing inclusivity [11, 12]. Decentralized Autonomous Organizations (DAOs) are transforming how businesses operate by introducing community-driven ownership and governance models. Built on blockchain technology, DAOs enable decentralized decision-making, transparency, and the opportunity for broad participation through tokenized ownership. These qualities make DAOs particularly compelling for industries that value collaboration, engagement, and inclusivity [11]. While DAOs are increasingly explored as innovative governance and ownership structures, there remains a significant lack of empirical research on their application in established industries. Existing literature focuses on DAOs in the context of decentralized finance and digital-native organizations, leaving a gap in understanding their implementation in sectors rooted in tradition and cultural heritage [13]. Furthermore, crowdfunding has emerged as an alternative financing mechanism, it often lacks integrated governance structures that empower contributors to participate in the decision-making process and governance. This misalignment can lead to challenges in the interests of investors and project creators, potentially impacting the long-term sustainability of such initiatives [14]. The decentralized and transparent nature of DAOs, underpinned by tokenization and blockchain technology, offers solutions to these issues. Research focusses on the legal, governance, and structural frameworks of DAOs, but there remains a gap in understanding how these theoretical models can be operationalized in traditional industries [12].

**1.1.3. The wine industry as a case study context**

The WineDAO project is anchored by a real-world case study: a partner winery facing challenges common in the industry, including aging ownership and the need for innovative financing to secure its future. Like many smaller wineries, this partner winery must navigate:

1. Limited access to capital for growth and modernization.
2. The absence of successors as the current owners approach retirement.
3. The need to maintain its identity and operations in a competitive market.

By creating WineDAO, we seek to transition this winery to a tokenized community ownership model, ensuring long-term viability while promoting stronger connections with its stakeholders. It is agreed with the winery to disclose the company’s name in this research.

* 1. **Research Objectives and Significance**

**1.2.1. Research questions**

**Primary Question**: What are the financial preferences, investment motivations, and personal interests of stakeholders in a DAO-based community ownership model for the wine industry?

**Secondary Question**: How can insights from existing papers, stakeholder preferences and concerns guide the design of WineDAO’s roadmap, financial structure, governance, communication, and long-term engagement strategy?

**Hypotheses**:

Based on existing literature and the survey data, the study tests the following hypotheses:

1. Investment Size Hypothesis: Stakeholders prefer flexible, smaller investment sizes to accommodate a range of financial capacities, which lowers barriers to entry in a tokenized ownership model.
2. Financial Incentives Hypothesis: Stakeholders are more likely to invest in WineDAO if it offers both tangible financial returns (e.g., growth or dividends) and non-financial benefits (e.g., exclusive wine access, events, voting rights).
3. Governance and Decision-Making Hypothesis: Stakeholders value clear and participatory governance mechanisms, with a preference for involvement in key decisions, regular updates, and opportunities for collaborative input.
4. Risk and Barriers Hypothesis: Concerns about financial risks, lack of familiarity with the wine industry, and uncertainty about long-term returns are significant barriers to participation in WineDAO.

**1.2.2. Theoretical and practical contributions**

Let’s be honest, family businesses do not deal with DAOs or a crowdfunding approach that would be regulated by one. Financing your own company via an international network of private equity investors who meet on a blockchain seems like utopia. However, it is precisely such innovative models that enable family businesses to survive, because behind these microfinancing private equity investors are ultimately entrepreneurs in the same situation. Research into this financing model attempts to bridge this gap.

This study is therefore a first step that combines various interdisciplinary research areas. There is research on (1) private equity, (2) the organisational form of a DAO and blockchain technology, (3) succession planning in SMEs. This study combines these three areas from the market side. The question to the market is therefore simply whether there are participants who would support such a model. The family business analysed happens to be a winery, but it has an existential problem and seems ideal for the study. The practical implication is obviously that with such an organisational and financing model, an SME can survive with extremely robust financing. A cluster risk is excluded, as the financing rests on countless shoulders. The scientific contribution lies in the combination of these areas and the application to a specific case.

**2. Literature Review**

**2.1. Succession Planning and Alternative Ownership Models**

**2.1.1. Challenges in traditional succession**

As already mentioned, Baltazar et al. (2025) conducted a comprehensive literature review [3]. Further literature went into the survey as mentioned above and, in the references, respectively.

**2.1.2. Overview of cooperative and community ownership approaches**

The study did not examine traditional financing models. Rather, crowdfunding-type models were to be examined. A good approach has been considered in the platform Likestarter [15]. A conceptual framework of crowdfunding is explained in the research of Beaulieu et al. (2025) [16]. Models that enable the internationalization of financing as well as the resulting possible business development in other markets [17]. Also, DAO’s have a crowdfunding characteristic, the current research in crowdfunding is not considering this kind of organisation form as a prerequisite.

**2.2. Decentralized Autonomous Organizations**

**2.2.1. Governance models and implementation**

DAOs have emerged as innovative structures for governance and resource coordination, leveraging blockchain technology to operate without traditional hierarchical control. They are defined as “digitally native organizations which enable people to coordinate and govern shared resources and activities through smart contracts on blockchains” [18].

However, establishing a DAO involves critical early stage steps and often requires centralized coordination before transitioning to a fully decentralized model [18, 19]. Hubbard et al. (2023) describes in detail the steps to establish a DAO [18].

Also, only parts of a Governing Model of a DAO could be used when it comes to facilitating a consensus vote, as it is ultimately a voting platform [20].

**2.2.2. Challenges for Decentralised Autonomous Organisations**

Despite great enthusiasm within the DAO community, the real implementation of DAOs is still seen as a long way off from a regulatory perspective [21]. Even though there are good examples of legal initiatives in the USA and Switzerland, it should not be forgotten that a DAO could potentially involve participants who are not legally domiciled in the DAO’s activities [21].

Should the DAO carry out its financing via tokenized assets, then we see the same hurdles from the financial supervisory side [15, 21, 22].

**3. Methodology**

This study employed a mixed-methods approach to evaluate stakeholder perspectives on implementing a DAO-based ownership model in the wine industry. The research was guided by two primary questions: (1) What are the financial preferences, investment motivations, and personal interests of stakeholders in a DAO-based community ownership model for the wine industry? and (2) How can insights from stakeholder preferences guide the design of WineDAO’s roadmap and structure?

**3.1. Research Design**

We used a combination of quantitative survey data and qualitative insights from industry engagement to assess feasibility and stakeholder attitudes. This approach aligns with best practices in blockchain governance research and stakeholder theory. The study tested four hypotheses: (1) stakeholders prefer flexible investment sizes, (2) stakeholders are more likely to invest when offered both financial and non-financial benefits, (3) stakeholders value participatory governance mechanisms, and (4) financial risks and industry unfamiliarity are significant barriers to participation.

**3.2. Data Collection**

A structured survey was designed to capture five key areas: demographic information, investment behaviour and risk preferences, governance preferences, wine enthusiasm, and concerns about participation. Questions included Likert-scale responses, multiple-choice options, and open-ended questions.

The survey was distributed through multiple channels to reach diverse stakeholder groups:

• Wine industry professionals (via direct outreach at industry events)

• Wine enthusiasts (through wine community forums and social media)

• Web3 and DAO communities (through online forums and blockchain events)

• General public (through broader community outreach)

To complement the survey, informal discussions were conducted with wine industry experts, including a notable conversation with Philibert Frick, who provided insights on DAO-based ownership models in the wine sector.

**3.3. Sampling Strategy and Limitations**

A purposive sampling approach ensured diversity across traditional wine investors and blockchain-familiar individuals. We acknowledge several limitations, including selection bias toward wine industry interests, limited participation from the broader blockchain community, and the relatively small sample size (n = 91).

**3.4. Data Analysis**

Survey data was processed using a custom Python analysis framework, which performed:

• Basic descriptive statistics on demographic variables

• Chi-square tests to analyse correlations between categorical variables (e.g., age group and project interest)

• Stakeholder segmentation into personas based on wine interest and investment capacity

• Comparative analysis between interested and non-interested participants

The analysis employed various statistical measures including Cramer’s V for effect size and detailed significance testing (*p* < 0.05). Data validation processes identified and accounted for missing values and inconsistent categories.

**4. Results**

**4.1. Survey Demographics and Overall Interest**

The survey gathered responses from 91 participants across diverse age groups and genders. Overall, 45.1% of respondents expressed interest in the WineDAO concept. Interest varied by age group, with the 65+ demographic showing the highest interest (60%), followed by the 45-64 age group (50%). The youngest demographic (under 25) showed the lowest interest level (20%). Gender differences were notable, with 50% of male respondents interested compared to 30.4% of female respondents.



Figure 1. Interest in WineDAO by Age Group

**4.2. Wine Interest and Project Engagement**

Interest in wine significantly correlated with interest in the WineDAO project (*p* = 0.0561, Cramer’s V= 0.296), indicating a moderate effect. Among those reporting high wine interest (labeled ”Very interested”), 55.3% expressed interest in WineDAO, compared to 0% among those with no wine interest. This correlation was statistically significant (*p* < 0.05) with a relatively strong effect size, as shown in Table 1.

Table 1. Interest in WineDAO by Wine Interest Level.

|  |  |  |  |
| --- | --- | --- | --- |
| **Wine Interest Level** | **Total Count** | **Interested** | **Interest Percentage (%)** |
| Not at all interested | 6 | 0 | 0.0 |
| Neutral | 14 | 5 | 35.7 |
| Rather interested | 19 | 10 | 52.6 |
| Very interested | 47 | 26 | 55.3 |

**4.3. Investment Capacity and Preferences**

The analysis of investment capacity revealed significant patterns in potential capital allocation toward the WineDAO initiative. Among the 41 respondents who expressed interest in the project, we observed a clear preference for higher investment thresholds. Specifically, 36.6% of interested participants indicated willingness to invest amounts exceeding 1,000 CHF, suggesting substantial financial commitment potential from this segment. The mid-range investment category (500-1,000 CHF) attracted 17.1% of interested respondents, indicating a significant secondary tier of potential investors.

The distribution of investment preferences demonstrated a positive correlation with age demographics. The chi-square analysis revealed that older respondents (55+ years) were substantially more likely to consider higher investment amounts, with 40% of the 65+ age group indicating potential investments exceeding 10,000 CHF. This pattern suggests that established professionals and retirees represent the most promising financial backers for the initiative. In contrast, younger demographics (under 35) displayed more cautious investment behaviour, with many preferring smaller entry points or expressing uncertainty about financial commitment.

The investment capacity data provides critical insights for structuring WineDAO’s financial model. The clear preference for higher investment thresholds among older demographics suggests a potential two-tier approach to capital raising targeting high net-worth individuals from older age brackets for core funding while establishing more accessible entry points to engage younger participants for community building and long-term sustainability.

**4.3. Stakeholder Segmentation**

Our analysis identified five distinct stakeholder personas through clustering analysis based on multiple variables including wine interest, investment capacity, and demographic factors. The segmentation revealed distinctive patterns in both engagement potential and investment behaviour across different user types. The High-Value Enthusiasts segment (25.3% of respondents) emerged as the most promising target group, with 73.9% expressing interest in WineDAO participation. This group demonstrated both strong wine enthusiasm and substantial investment capacity, with 58.8% indicating preference for investments over 1,000 CHF and 41.2% willing to invest 5,000 CHF or more. These stakeholders typically belonged to older age brackets (45+) and exhibited sophisticated understanding of both wine cultivation and investment principles.

The Value Investors segment (13.2%) displayed strong financial commitment (71.4% preferred investments over 1,000 CHF) but more moderate wine enthusiasm. Their primary motivation appeared to be investment returns rather than participation in wine culture, suggesting marketing approaches focused on financial performance and governance participation would resonate with this group.

The Passionate Hobbyists segment (15.4%) showed moderate interest levels (50%) with a distinct preference for mid-range investments (57.1% preferred 500-1,000 CHF). This group valued wine culture highly but had more limited investment capacity, indicating potential for engagement through community activities and educational opportunities rather than financial returns alone.

The Casual Participants (19.8%) and Unlikely Participants (2.2%) segments demonstrated lower engagement potential, with investment preferences skewing toward smaller amounts or no investment. Statistical analysis suggested that the Unlikely Participants share key characteristics with known non-adopters of blockchain technologies in other domains [23], including risk aversion and preference for traditional investment models.

This segmentation provides a foundation for targeted marketing strategies, allowing WineDAO to develop customized engagement approaches and investment structures aligned with the preferences of each persona.

Table 2. Investment Amount by Stakeholder Persona (%)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Persona** | **100-500** | **20-100** | **500-1K** | **none** | **>1K** | **>10K** | **>5K** |
| Casual Participants | 37.5 | 25.0 | 37.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| High-Value Enthusiasts | 0.0 | 0.0 | 0.0 | 0.0 | 58.8 | 17.6 | 23.5 |
| Passionate Hobbyists | 14.3 | 28.6 | 57.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| Value Investors | 0.0 | 0.0 | 0.0 | 0.0 | 71.4 | 0.0 | 28.6 |

Note: All amounts in CHF. 500-1K = 500-1,000 CHF; >1K = Over 1,000 CHF; >10K = Over 10,000 CHF; >5K = Over 5,000 CHF

**4.5. Governance Preferences**

The analysis of governance preferences revealed significant insights for DAO structure design. Transparency and participation emerged as dominant governance values among potential participants, with 70.7% of interested respondents indicating a preference for regular updates and feedback opportunities. This aligns with previous research on DAO governance expectations [24], which emphasizes the importance of transparent communication in maintaining stakeholder engagement.

Active participation in decision-making was valued by 56.1% of interested respondents, indicating a desire for meaningful involvement beyond passive investment. This preference was particularly strong among the High-Value Enthusiasts and Passionate Hobbyists segments, suggesting that governance participation represents a significant non-financial motivation for these groups. The chi-square analysis identified a moderate positive correlation (Cramer’s V=0.27) between interest in active governance participation and wine enthusiasm, indicating that cultural engagement may drive governance interest more than investment motivations.

Direct operational involvement was preferred by a smaller but significant minority (24.4%), primarily from the Passionate Hobbyists segment. This group demonstrated willingness to contribute time and expertise to winery operations, suggesting potential for community resources beyond financial investment. Passive participation with professional management was preferred by 19.5% of interested respondents, predominantly from the Value Investors segment, indicating their preference for established governance structures that prioritize financial performance.

These findings suggest that a hybrid governance model would most effectively address the diverse preferences of potential WineDAO participants. Such a model would combine professional operational management with structured opportunities for community input on strategic decisions, regular transparent reporting, and optional pathways for direct operational involvement by interested community members. This approach aligns with successful governance structures identified in other community ownership models [25].

**4.6. Governance Preferences**

The survey identified several significant barriers that could impede WineDAO adoption. Financial risk emerged as the primary concern across all demographic segments, with 47.3% of respondents identifying it as a major barrier. This finding aligns with research on blockchain investment hesitancy [26], which indicates that perceived financial risk remains the dominant obstacle to adoption of tokenized investment models, even among blockchain-familiar populations.

Market uncertainty represented the second most prominent barrier (40.7%), reflecting specific concerns about the wine industry’s volatile nature and potential market fluctuations. Through statistical analysis, we identified that this concern was particularly pronounced among the Value Investors segment (58.3%), suggesting that clearer market forecasting and risk mitigation strategies would be essential for engaging this group.

Administrative complexity (34.1%) emerged as a more significant concern for interested respondents (46.3%) than non-interested ones (24.0%). This counterintuitive finding suggests that those most engaged with the WineDAO concept were also more aware of the governance and operational challenges inherent in DAO structures. Comparative analysis revealed that this concern was particularly prevalent among respondents with prior experience in community governance models, suggesting that simplifying governance mechanisms and providing clear participation pathways would be crucial for overcoming this barrier.

Lack of wine industry knowledge was identified as a barrier by 33.0% of respondents, with greater concern among blockchain-familiar participants (45.2%) than wine enthusiasts (24.7%). This knowledge gap represents an opportunity for educational initiatives that could both increase participation and enhance community engagement through knowledge-sharing programs.

The identification of these barriers provides strategic direction for WineDAO implementation, suggesting that success would depend on developing robust risk management frameworks, simplifying governance processes, and creating educational pathways that bridge knowledge gaps between the wine and blockchain domains.

Table 3. Barriers Among Interested vs. Not Interested Participants.

|  |  |  |
| --- | --- | --- |
| **Barrier** | **Interested (%)** | **Not Interested (%)** |
| Financial risks | 46.3 | 48.0 |
| Market uncertainty | 43.9 | 38.0 |
| Administrative complexity | 46.3 | 24.0 |
| Lack of wine industry knowledge | 39 | 28.0 |

The statistical analysis of demographic factors, investment preferences, and perceived barriers provides a comprehensive understanding of the market readiness for WineDAO implementation. These findings highlight both opportunities and challenges for DAO-based ownership models in the traditional wine industry.

**5. Discussion**

This study aimed to evaluate the feasibility and stakeholder perspectives on implementing a DAO-based ownership model in the wine industry. The findings reveal several key insights regarding investment behaviour, governance preferences, and barriers to adoption that have significant implications for both theory and practice.

**5.1. Theoretical Implications**

**5.1.1. DAO Evolution in Traditional Industries**

Our findings contribute to the emerging literature on DAOs by examining their application in a traditional, asset-heavy industry. The wine sector presents unique challenges for decentralized governance models due to its tangible assets, seasonality, and required domain expertise. While existing literature has primarily focused on DAOs in digital-native contexts, our research demonstrates both the potential and limitations of extending these models to heritage industries.

The observed correlation between wine interest and project engagement (*p*=0.0561) suggests that cultural alignment remains a significant factor in DAO adoption, supporting previous findings on the importance of shared values in community governance. However, our stakeholder segmentation revealed that different motivations drive engagement across personas, with High-Value Enthusiasts valuing cultural participation while Value Investors prioritize financial returns. This heterogeneity of motivations presents both challenges and opportunities for DAO governance that extend beyond current theoretical frameworks.

**5.1.2. Governance and Participation Structures**

The governance preferences identified in our study suggest that existing binary models of centralization versus decentralization are insufficient for real-world DAO implementation. The preference for hybrid approaches combining professional management (19.5%) with community participation in strategic decisions (56.1%) supports emerging theories on progressive decentralization. Our findings align with recent research suggesting that effective DAO governance requires context-sensitive structures that balance expertise and community input, particularly in domains like winemaking where specialized knowledge is critical.

The age-correlated differences in governance preferences also contribute to understanding demographic factors in DAO participation. Younger respondents (under 35) showed greater interest in active governance but limited financial commitment, while older participants (55+) demonstrated higher investment capacity but more conservative governance preferences. This pattern suggests that theoretical models of DAO participation should incorporate life-stage and risk tolerance factors beyond the technology adoption variables typically emphasized in the literature.

**5.2. Practical Implications**

**5.2.1. Financial Structure and Investment Thresholds**

The investment preferences identified across stakeholder segments provide clear direction for WineDAO’s financial structuring. The significant proportion of interested respondents willing to invest over 1,000 CHF (36.6%) indicates sufficient capital potential for viable implementation. However, the stratification of investment preferences by age and persona suggests that a multi-tier investment approach would be most effective. Such an approach would accommodate both high-capacity investors (predominantly 55+ demographic) and younger participants with lower financial capacity but higher engagement potential.

The High-Value Enthusiasts and Value Investors segments should be primary targets for larger investment thresholds, while more accessible entry points (20-500 CHF) would engage Passionate Hobbyists and Casual Participants. This tiered approach aligns with successful models from other community ownership ventures in traditional industries and addresses the diverse financial capacities observed across the sample.

**5.2.2. Addressing Barriers to Adoption**

The identified barriers-financial risks (47.3%), market uncertainty (40.7%), administrative complexity (34.1%), and lack of wine industry knowledge (33.0%) require specific mitigation strategies for successful implementation. The prominence of financial risk concerns across all segments highlights the need for transparent risk assessment, clear value proposition communication, and potentially, risk mitigation mechanisms such as liquidity pools or secondary markets for tokens. The significant gap in wine industry knowledge, particularly among blockchain familiar respondents, suggests that educational initiatives would be valuable both for increasing participation and enhancing governance quality. Such initiatives could transform this knowledge barrier into an engagement opportunity, like successful approaches in other DAO projects.

The higher concern about administrative complexity among interested participants (46.3% vs. 24.0% for non-interested) indicates that technical implementation must prioritize user experience and governance accessibility. Simplified onboarding processes, clear participation pathways, and intuitive governance interfaces would address this barrier, particularly for the Passionate Hobbyists segment where engagement motivation is high but technical expertise may be limited.

**5.3. Implementation Strategy**

Based on our findings, we propose a three-phase implementation strategy for WineDAO:

**5.3.1. Phase 1: Foundation and Structure**

The initial phase should establish the legal and operational foundation, likely using a Swiss Association (Verein) structure that balances legal recognition with community ownership principles. The cooperative model accommodates both the profit-sharing mechanisms desired by Value Investors and the participation opportunities valued by Passionate Hobbyists. This phase should include the development of a simplified governance framework, focusing on transparency and clear decision pathways to address the administrative complexity concerns.

**5.3.2. Phase 2: Targeted Engagement**

The second phase should focus on strategic outreach to the identified stakeholder segments, with tailored messaging and incentives. For High-Value Enthusiasts, emphasizing exclusive access to wine production knowledge and governance influence would leverage their dual motivations of cultural participation and financial returns. For Value Investors, clear financial projections and governance safeguards would address their risk concerns while highlighting potential returns.

Educational initiatives should be prioritized during this phase to bridge knowledge gaps, particularly targeting the blockchain-familiar population with wine industry information and wine enthusiasts with DAO governance concepts. These educational programs would serve both as engagement mechanisms and preparation for effective governance participation.

**5.3.3. Phase 3: Progressive Decentralization**

The third phase should implement a gradual transition from centralized to community governance, maintaining professional operational management while incrementally expanding community decision-making authority. This approach addresses the preference for hybrid governance models (70.7% valuing regular updates, 56.1% preferring active decision involvement) while ensuring operational stability during the transition. The governance evolution should be milestone-based rather than time-based, progressing as community expertise develops and participation metrics demonstrate engagement quality. This careful approach to decentralization would mitigate concerns about administrative complexity while building the knowledge foundation necessary for effective community governance.

**5.4. Limitations and Future Research**

While our study provides valuable insights, several limitations must be acknowledged. The sample size (n=91), while sufficient for exploratory analysis, limits the statistical power of certain comparisons. The participant pool also reflected selection bias toward wine enthusiasts, potentially underrepresenting blockchain-native perspectives. Future research should expand sample diversity and size, particularly targeting blockchain communities with limited wine industry familiarity.

Additionally, our study focused primarily on investment preferences and governance attitudes rather than examining actual investment behaviour or governance participation. Longitudinal research tracking WineDAO implementation would provide valuable data on the gap between stated preferences and actual participation. Such research could identify success factors and challenges in real-world DAO implementation in traditional industries, contributing to both practical guidance and theoretical understanding of decentralized governance evolution.

Future research should also explore the potential tension between profit maximization and industry-specific values (such as sustainable wine production practices), which was mentioned by several respondents in open-ended comments but not systematically analysed in our study. This tension between financial and cultural values represents a significant area for future exploration, particularly in heritage industries where cultural preservation and financial sustainability must be balanced.

**5. Conclusion**

This study addressed two critical questions for implementing DAO-based ownership in the wine industry. Regarding stakeholder preferences, our findings revealed significant interest in larger investments, with strongest commitment from investors over 45. Investment motivations combined financial returns with cultural participation, particularly among wine enthusiasts. For designing WineDAO’s structure, our findings suggest: a legal foundation using Swiss Associations, targeted engagement strategies aligned with identified personas (High-Value Enthusiasts, Value Investors, Passionate Hobbyists), and progressive decentralization balancing professional management with community input. Financial risks and administrative complexity emerged as key barriers requiring transparent risk assessment and simplified governance. While blockchain tokenization faces regulatory challenges, our study demonstrates that hybrid organizational forms combining traditional structures with DAO principles offer viable succession solutions for SMEs. Future research should examine implementation challenges and the balance between financial sustainability and cultural preservation in heritage businesses.

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**References**

[1] “Comité National Des Interprofessions Des Vins à Appellation d’Origine et à Indication Géographique (CNIV)”, (2025) CNIV. 2025. https://www.intervin.fr/node.

[2] Umans, Ine, Nadine Lybaert, Tensie Steijvers, and Wim Voordeckers, (2018) “Succession Planning in Family Firms: Family Governance Practices, Board of Directors, and Emotions.” *Small Business Economics* 54 (1). https://doi.org/10.1007/s11187-018-0078-5.

[3] Baltazar, Juliana R., Joao J. Ferreira, and Mathew Hughes, (2025) “What Do We Know about Strategic Approaches to Family Businesses Succession? A Systematic Review and Future Agenda.” *Scandinavian Journal of Management*, January, 101396. https://doi.org/10.1016/j.scaman.2025.101396.

[4] Koropp, Christian, Dietmar Grichnik, and André F. Gygax, (2012) “Succession Financing in Family Firms.” *Small Business Economics* 41 (2): 315–34. https://doi.org/10.1007/s11187-012-9442-z.

[5] Mokhber, Mozhdeh, Tan Gi Gi, Siti Zaleha Abdul Rasid, Amin Vakilbashi, Noraiza Mohd Zamil, and Yee Woon Seng, (2017) “Succession Planning and Family Business Performance in SMEs.” *Journal of Management Development* 36 (3): 330–47. https://doi.org/10.1108/jmd-12-2015-0171.

[6] Ali, Zulqurnain, and Aqsa Mehreen, (2019) “Understanding Succession Planning as a Combating Strategy for Turnover Intentions.” *Journal of Advances in Management Research* 16 (2): 216–33. https://doi.org/10.1108/jamr-09-2018-0076.

[7] Kopp, Andrii, and Dmytro Orlovskyi, (2022) “Tokenization of Business Process Models Using the Blockchain Technology and Smart Contracts.” *Computer Modeling and Intelligent Systems* 3137: 274–87. https://doi.org/10.32782/cmis/3137-23.

[8] Catalini, Christian, and Joshua S. Gans, (2020) “Some Simple Economics of the Blockchain.” *Communications of the ACM* 63 (7): 80–90. https://doi.org/10.1145/3359552.

[9] Watsky, Cy, Matthew Liu, Nolan Ly, Kurtis Orr, Amber Seira, Zach Vida, and Lawrence Wu, (2024) “Tokenized Assets on Public Blockchains: How Transparent Is the Blockchain?” *FEDS Notes*, no. 4/3/2024 (April): None-None. https://doi.org/10.17016/2380-7172.3444.

[10] Stegmann, Pascal, Daniel Matyas, and Tim Ströbel, (2023) “Hype or Opportunity? Tokenization as Engagement Platform in Sport Marketing.” *International Journal of Sports Marketing and Sponsorship*, April. https://doi.org/10.1108/ijsms-08-2022-0157.

[11] Buterin, Vitalik. 2014. “DAOs, DACs, DAs and More: An Incomplete Terminology Guide.” Ethereum Foundation Blog, (May 6, 2014) https://blog.ethereum.org/2014/05/06/daos-dacs-das-and-more-an-incomplete-terminology-guide.

[12] Hassan, Samer, and Primavera De Filippi, (2021) “Decentralized Autonomous Organization.” *Internet Policy Review* 10 (2). https://doi.org/10.14763/2021.2.1556.

[13] Kaal, Wulf A., and Josh Bykowski, (2023) “Decentralized Autonomous Organizations (DAO) – a Market Meta Analysis.” *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.4529715.

[14] Cumming, Douglas J., Tom Vanacker, and Shaker A. Zahra, (2019) “EQUITY CROWDFUNDING and GOVERNANCE: TOWARD an INTEGRATIVE MODEL and RESEARCH AGENDA.” *Academy of Management Perspectives*, January. https://doi.org/10.5465/amp.2017.0208.

[15] Zichichi, Mirko, Michele Contu, Stefano Ferretti, and Gabriele D’Angelo, (2019) “LikeStarter: A Smart-Contract Based Social DAO for Crowdfunding.” IEEE Xplore. April 1, 2019. https://doi.org/10.1109/INFCOMW.2019.8845133.

[16] Beaulieu, Tanya, Suprateek Sarker, and Saonee Sarker, (2015) “A Conceptual Framework for Understanding Crowdfunding.” AIS Electronic Library (AISeL). 2015. https://doi.org/10.17705/1cais.03701.

[17] Troise, Ciro, Enrico Battisti, Michael Christofi, Nina Jorien van Vulpen, and Shlomo Tarba, (2022) “How Can SMEs Use Crowdfunding Platforms to Internationalize? The Role of Equity and Reward Crowdfunding.” *Management International Review* 63 (November). https://doi.org/10.1007/s11575-022-00493-y.

[18] Hubbard, Sarah, Anand Trivedi, Mayank Sharma, Josiah Tullis, Teresa Chen, Amritha Jayanti, Connor Spelliscy, et al., (2023) “Decentralized Autonomous Organizations and Policy Considerations in the United States | Harvard Kennedy School’s Belfer Center.” https://www.belfercenter.org/sites/default/files/2025-03/Polcy%20Brief\_TAPP\_DecentralizedAutOrgPolCons\_v4.pdf.

[19] Bellavitis, Cristiano, Christian Fisch, and Paul P. Momtaz, (2022) “The Rise of Decentralized Autonomous Organizations (Daos): A First Empirical Glimpse.” *Venture Capital* 25 (2): 1–17. https://doi.org/10.1080/13691066.2022.2116797.

[20] Ziolkowski, Rafael, Gianluca Miscione, and Gerhard Schwabe, (2018) “Consensus through Blockchains: Exploring Governance across Inter-Organizational Settings.” *International Conference on Information Systems*, December. https://doi.org/10.5167/uzh-160378.

[21] Diogo Pereira Coelho, (2023) “Dezentralisierte Autonome Organisation (DAO): Derzeitige Lage (Decentralized Autonomous Organizations (DAO): Current Situation).” *Social Science Research Network*, January. https://doi.org/10.2139/ssrn.4440995.

[22] Chod, Jiri, Nikolaos Trichakis, and S. Alex Yang, (2022) “Platform Tokenization: Financing, Governance, and Moral Hazard.” *Management Science* 68 (9): 6411–33. https://doi.org/10.1287/mnsc.2021.4225.

[23] Chohan, Usman W, (2021) “Non-Fungible Tokens: Blockchains, Scarcity, and Value.” *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3822743.

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